

Environmental Manual



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FORMS

ENV-02-F1	Environmental Comment/Response Form
MAN-14-F1	Environmental Questionnaire (EQ) Form
MAN-14-F2	Environmental Evaluation (EE) Approval Form, Outline, and Section Forms
MAN-14-F3	Stream Data Form
MAN-14-F4	EPIC Tracking Sheet

PROCEDURES

DM-03	Administrative Record
ENV-01	Storm Water Management
ENV-02	Environmental Documentation Review and Submittal Process
ENV-03	Control of Environmental Nonconformance

ATTACHMENTS

MAN-14-A1	Example EQ for NTTA Project (This document will be available in future revision)
MAN-14-A2	EE Instructions
MAN-14-A3	Example EE for NTTA Project
MAN-14-A4	NEPA Environmental Documentation
MAN-14-A5	Letter of Agreement - Phase I (Project Development) - NTTA, TxDOT, and FHWA
MAN-14-A6	Permitting Documentation for Impacts to Waters of the U.S., Including Wetlands

Acknowledgement: This manual contains information from the Texas Department of Transportation, California Department of Transportation, and Illinois State Toll Highway Authority publications relevant to environmental studies. This material has been used to ensure compatibility with the Texas Department of Transportation and Federal Highway Administration standards and to develop the North Texas Tollway Authority environmental review process for locally-funded projects.

LIST OF ACRONYMS

AADT	Annual Average Daily Traffic
ACHP	Advisory Council on Historic Preservation
ACT	Antiquities Code of Texas
ADT	Average Daily Traffic
AEDPD	Assistant Executive Director of Project Delivery
APE	area of potential effects
ARPA	Archeological Resources Protection Act
ASTM	American Society for Testing and Materials
BA	Biological Assessment
BFE	base flood elevation
BMP	best management practice
BO	Biological Opinion
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAR	Corrective Action Request
CBRA	Coastal Barrier Resources Act
CCC	Coastal Coordination Council
CDC	Corridor Development Certificate
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGP	TCEQ TPDES Construction General Permit TXR150000
CIP	Capital Improvement Program
CLOMR	Conditional Letter of Map Revision
CMC	Construction Management Consultant
CMP	Congestion Management Process
CO	carbon monoxide
CSN	Construction Site Notice
CWA	Clean Water Act
DART	Dallas Area Rapid Transit
dBA	A-weighted decibel
dbh	diameter at breast height
DDR	Due Diligence Report
DEIS	Draft Environmental Impact Statement
DFW	Dallas-Fort Worth
DPD	Director of Project Delivery
DSE	Design Section Engineer
EA	Environmental Assessment
ECM	Environmental Compliance Manager
ECT	Environmental Compliance Team
EE	Environmental Evaluation
EFH	essential fish habitat
EIS	Environmental Impact Statement
EJ	environmental justice
EO	Executive Order
EOR	Element of Occurrence Record

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EPA	United States Environmental Protection Agency
EPDS	Enterprise Project Delivery System
EPIC	environmental permits, issues, and commitments
EQ	Environmental Questionnaire
ESA	Endangered Species Act / Environmental Site Assessment
ETC	electronic toll collection
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act
GIS	Geographic Information System
GLO	General Land Office
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HAP	hazardous air pollutants
HCP	Habitat Conservation Plan
HEC-RAS	Hydraulic Engineering Center - River Analysis System
HRSR	Historic-age Resource Survey Report
HSWA	Hazardous and Solid Waste Amendments
HUD	Department of Housing and Urban Development
ILA	Interlocal Agreement
IP	Individual Permit
ISTEA	Intermodal Surface Transportation Efficiency Act
JD	jurisdictional determination
LEP	Limited English Proficiency
LGPP	Local Government Project Procedures
LOI	Letter of Intent
LOMR	Letter of Map Revision
LOP	Letter of Permission
LRTP	Long Range Transportation Plan
LUST	leaking underground storage tank
LWCFA	Land and Water Conservation Fund Act
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPA	Metropolitan Planning Area
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSAT	mobile source air toxics
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSGSM	Marl, Sand, Gravel, Shell, or Mudshell
MS4	Municipal Separate Storm Sewer System
MTP	Metropolitan Transportation Plan

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NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NAGPRA	Native American Grave Protection and Repatriation Act
NCHRP	National Cooperative Highway Research Program
NCR	Non-conformance Report
NCTCOG	North Central Texas Council of Governments
NDD	Natural Diversity Database
NEPA	National Environmental Policy Act
NFIA	National Flood Insurance Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NISC	National Invasive Species Council
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Change
NOI	Notice of Intent
NOT	Notice of Termination
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTTA	North Texas Tollway Authority
NWI	National Wetland Inventory
NWP	Nationwide General Permit
O ₃	ozone
O&D	Origin-Destination
PAL	Project Action Level
PA-TU	Programmatic Agreement for Transportation Undertakings
Pb	lead
PCN	Pre-construction Notification
PCP	Project Coordination Plan
PDD	Project Delivery Department
PGP	Programmatic General Permit
PJD	preliminary jurisdictional determination
PM-2.5/PM-10	particulate matter
PMC	Program Management Consultant
PSL	Project Specific Location
PS&E	Plans, Specifications, and Estimates
QMS	Quality Management System
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RGP	Regional General Permit
RHA	Rivers and Harbors Act
ROD	Record of Decision
ROE	right of entry
ROW	right-of-way
RSA	resource study area
RTC	Regional Transportation Council

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RTHL	Recorded Texas Historic Landmark
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAL	State Archeological Landmark
SEIS	Supplemental EIS
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SOU	Standards of Uniformity
STIP	Statewide Transportation Improvement Program
STTC	Surface Transportation Technical Committee
SW3P	Storm Water Pollution Prevention Plan
SWMP	Storm Water Management Program/Plan
TAC	Texas Administrative Code
TAP	Texas Antiquities Permit
TARL	Texas Archeological Research Laboratory
TAQA	Traffic Air Quality Analysis
TCEQ	Texas Commission on Environmental Quality
TCMP	Texas Coastal Management Program
TCOG	Texoma Council of Governments
TDA	Texas Department of Agriculture
TDSHS	Texas Department of State Health Services
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century
THC	Texas Historical Commission
The T	Forth Worth Transportation Authority
TIP	Transportation Improvement Program
TNM	Traffic Noise Model
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TRE	Trinity Railway Express
TSDf	treatment, storage, and disposal facilities
TSM	Transportation System Management
TxDOT	Texas Department of Transportation
TxDOT BRG	TxDOT Bridge Division
TxDOT DAL	TxDOT Dallas District
TxDOT DES	TxDOT Design Division
TxDOT ENV	TxDOT Environmental Affairs Division
TxDOT FIN	TxDOT Finance Division
TxDOT FTW	TxDOT Fort Worth District
URARPAPA	Uniform Relocation Assistance and Real Property Acquisition Policies Act
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOI	United States Department of Interior
USC	United States Code
USCG	United States Coast Guard
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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UST	underground storage tank
VIA	Visual Impact Assessment
VMT	vehicle miles traveled
VOC	volatile organic compounds
vpd	vehicles per day

1.0 Overview

The mission of the North Texas Tollway Authority (NTTA) is to provide a fiscally sound system of innovative toll facilities, services, and solutions that improves the mobility, quality of life, and economy of North Texas. The procedures in this Environmental Manual (Manual) have been developed to implement NTTA Environmental Policy and to comply with state and federal law.

1.1 Purpose

The purpose of this Manual is to provide NTTA staff, consultants, and project managers with sufficient guidance so that projects can be developed in an efficient and timely manner, comply with all applicable environmental regulations, and be uniform in their quality and delivery. The Manual will be used by NTTA in support of the decision making process in determining appropriate actions and will serve as the standard measurement for quality assurance and environmental compliance in project delivery.

The procedures set forth in this Manual are for guidance purposes only and are subject to change when necessary, to reflect modifications in regulatory requirements and standards of professional practice.

Project development and construction of NTTA toll facilities may include various types of funding sources including federal, state, and local funding. NTTA projects that utilize only local funds shall follow the NTTA environmental review process outlined in this Manual. NTTA projects utilizing federal/state funding or involving a federal action shall meet the requirements of the National Environmental Policy Act (NEPA) and other related federal and state laws, rules, and regulations discussed in this Manual.

This Manual provides an overview of the environmental regulations applicable to transportation improvement projects and outlines procedures for environmental documentation, impact assessments, permitting and mitigation, environmental compliance and monitoring, and the review and approval processes for environmental project deliverables. It provides general guidance for project development in order to understand and document potential environmental impacts of NTTA projects. By implementation of this Manual, NTTA can improve the incorporation of environmental requirements into project schedules and facilitate the environmental review and approval process to ensure timely project delivery.

1.2 Objectives

This Manual establishes an environmental process that comprehensively addresses the assessment of environmental impacts for NTTA projects. The NTTA environmental process is comprised of:

- Assessing and documenting environmental impacts;
- Complying and coordinating with federal, state, and local agencies with regulatory responsibility and jurisdictional authority;
- Coordinating with the affected public and stakeholders; and
- Defining the roles and responsibilities for NTTA staff and consultants to act on the items listed above.

The objectives of this Manual are:

- To provide a framework within which environmental documentation prepared for NTTA projects is appropriate to and aligns with the project scope and scale;
- To provide guidance on environmental requirements for both locally-funded and federal/state funded projects that NTTA sponsors;
- To ensure that the appropriate document type or class is assigned to each project and that the three project action levels and associated document types for NTTA projects are applied to all projects, except in those cases where the NEPA process supersedes the local process;
- To implement compliance and monitoring for environmental commitments established during the environmental planning and documentation process; and
- To streamline the development of NTTA projects and to begin efficient implementation of the NTTA environmental process by providing a comprehensive resource which standardizes environmental procedures.

Pursuant to the objectives previously stated, this Manual provides a detailed discussion of environmental regulations, roles and responsibilities, project documentation and procedures, impact assessment, permits and mitigation, and compliance and monitoring. The chapters and sections provide detail and guidance to plan and obtain environmental clearance for NTTA projects. A significant portion of this Manual is devoted to procedures and documentation guidelines to provide the resources necessary to carry out the objectives of this Manual.

1.3 Environmental Regulations and Agreements

This section presents a general overview of federal and state environmental laws, rules, regulations, and agreements governing the development of transportation projects. The regulations discussed provide the foundation and guiding principles for assessing environmental impacts associated with transportation improvements. The information presented in this section is provided for reference and background information purposes; not all are applicable to the Dallas-Fort Worth (DFW) region and/or to NTTA locally-funded projects. The applicability of these statutes and agreements will vary from project to project.

1.3.1 Environmental Documentation

National Environmental Policy Act of 1969

The United States (U.S.) Congress approved NEPA in 1969 (42 United States Code [USC] 4321-4370f) to establish a national policy to protect the environment. NEPA also set up the Council on Environmental Quality (CEQ), which set out regulations for implementing NEPA, including the types of actions and the analyses required.

NEPA requires federal agencies to consider the potential environmental consequences of their actions, document their analysis, and engage the public in the process. NEPA applies to all federal actions (i.e., federal decisions, authorizations, approvals, and permits). Federally-funded transportation projects are subject to NEPA as are federal permitting decisions. NEPA directs federal agencies to make decisions based on an understanding of the environmental consequences of the proposed project. To achieve this understanding, NEPA requires an evaluation of environmental impacts of proposed projects on the environment and a

consideration of alternatives at a level of detail appropriate to the scope of the action being taken. Where impacts cannot be avoided, consideration of minimization or mitigation of impacts is required.

CEQ Regulations 40 Code of Federal Regulations (CFR) 1500-1508

The CEQ Regulations set forth the procedures for complying with NEPA. The CEQ Regulations require that each federal agency develop its own regulations implementing NEPA with regard to the agency's programs and actions.

Federal Highway Administration (FHWA) Regulations Implementing NEPA (23 CFR 771)

23 CFR 771 comprises the environmental regulations of the United States Department of Transportation (USDOT), the FHWA, and the Federal Transit Administration (FTA). In accordance with CEQ requirements, these regulations were promulgated to implement NEPA requirements for surface transportation projects. Under 23 CFR 771, federally-funded transportation activities must:

- Comply with all applicable environmental requirements;
- Document compliance at a level appropriate to the activity's potential to cause significant environmental impact;
- Evaluate alternatives (including the no-action alternative). Make decisions in the overall public interest based on a balanced consideration of the need for the project and the social, economic, and environmental impacts of the project;
- Inform the public and other governmental entities and involve them in making decisions;
- Perform sufficient interdisciplinary studies on which to make decisions; and
- Implement measures to avoid, minimize, or mitigate environmental impacts.

FHWA Technical Advisory (T 6640.8A)

This technical advisory provides guidance on document preparation, types of analyses, formats for environmental documents, and other aids in documenting NEPA compliance required by 23 CFR 771.

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005

SAFETEA-LU built upon the Intermodal Surface Transportation Equity Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21) and incorporated changes aimed at improving and streamlining the environmental process for transportation projects. The provisions included a refined environmental review process for highways, transit, and multimodal projects, with increased authority for transportation agencies, but also increased their responsibilities (e.g., a new category of participating agencies, notice and comment related to defining a project's need and purpose, and identifying alternatives).

43 Texas Administrative Code (TAC), Part 1, Chapter 2, Subchapter A

This Chapter of the TAC was adopted by TxDOT to provide comprehensive regulations for environmental analysis in project development of non-federal projects involving TxDOT approval or funding. For roadway projects, these sections generally mirror the USDOT regulations found in 23 CFR 771. Environmental review procedures for public transportation, aviation, Gulf

Intracoastal Waterway projects, and maintenance operations are also established within this Chapter.

Public involvement requirements and interagency coordination are critical components of the transportation project development process. Public involvement on projects for which TxDOT has oversight authority must comply with the procedures set forth in 43 TAC 2.1-2.20. Section 2.5 (e)(7)(B) was adopted by TxDOT to provide guidance on environmental review and public involvement for transportation projects. This section states that the TxDOT District shall make available the Draft Environmental Impact Statement (DEIS) at a designated location for the general public 45 days in advance of the public hearing.

1.3.2 Water

Clean Water Act (CWA) of 1972

The CWA (33 USC 1251-1387) was enacted to maintain and restore the chemical, physical, and biological integrity of the waters of the U.S. The broad jurisdiction under this law includes but is not limited to navigable waters, interstate waters, tributaries to these waters, and wetlands adjacent to these waters.

Section 303(d) of the CWA requires states, territories, and authorized tribes to develop and maintain a list of impaired waters. Waterbodies included on the 303(d) list include those waterbodies that fail to meet established water quality standards. The law requires that each jurisdiction (state, territory, or tribe) establish priority rankings for waters on the lists and develop total maximum daily loads for these waters.

Section 401 of the CWA requires any applicant for a federal license or permit for conducting any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification from the Texas Commission on Environmental Quality (TCEQ) that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. Generally speaking, certifications from the TCEQ, under Section 401, are required for permits issued by the United States Army Corps of Engineers (USACE) under Section 404.

Section 402 of the CWA pertains to water quality-based standards for states and established the National Pollutant Discharge Elimination System (NPDES) permit program to control point source discharges of water pollution. NPDES is a federal regulatory program to control discharges of pollutants to surface waters of the U.S. In 1990, the United States Environmental Protection Agency (EPA) published final regulations for the NPDES storm water discharge permits (40 CFR 122). The purpose of this legislation is to improve the quality of the nation's rivers, lakes, and streams by reducing pollution from non-point sources. These regulations are administered by the EPA and the TCEQ. The State of Texas assumed the authority to administer the NPDES program in Texas on September 14, 1998. The TCEQ administers the Texas Pollutant Discharge Elimination System (TPDES) program and has federal regulatory authority over discharges of pollutants to Texas surface water.

Section 404 of the CWA established a program to regulate the discharge of dredged and fill material into waters of the U.S., including wetlands. Section 404 makes it unlawful to discharge dredged or fill material into waters of the U.S. without first receiving authorization from the USACE.

On June 19, 2006, the Supreme Court issued its opinions in *Rapanos v. United States* and *Carabell v. USACE* (Rapanos cases). Those decisions address the scope of the CWA jurisdiction over certain waters of the U.S., including wetlands. The Supreme Court decisions in the Rapanos cases resulted in new guidance from the USACE and the EPA.

Rivers and Harbors Act (RHA) of 1899

The USACE began regulating activities in navigable waters with the RHA of 1899. The RHA includes waters defined as navigable by the United States Coast Guard (USCG) but may also include rivers that were historically navigable or those which, with modification, may be available for future use to transport interstate commerce.

Section 9 (33 USC 401) of the RHA empowers the USCG to regulate the construction of bridges and causeways within or across navigable waterways as determined by that agency through navigable waterway permits. The General Bridge Act of 1946 has more recent rules and regulations that direct the application process for Section 9 permits.

Section 10 (33 USC 403) of the RHA empowers the USACE to regulate all work on structures in or affecting the course, condition, or capacity of navigable waters of the U.S. through navigable waterway permits.

Section 14 (33 USC 408) of the RHA, also referred to as **Section 408**, empowers the USACE to grant permission for proposed modifications/alterations to existing USACE projects. These usually consist of large proposed projects considered to have a significant impact that could change the authorized USACE project's scope, purpose, or function and are administered at a national level requiring approval by the USACE Chief of Engineers. Examples of these types of modifications/alterations include degradations, raisings, and realignments to the established flood protection system. Other types of alterations/modifications that may need approval under Section 408 with engineering analysis include non-federal levee tie-ins, ramps, riverside landscaping, retaining walls, fill against a levee, bridges, relief wells, seepage berms, and stability berms. The USACE is responsible for reviewing proposed modifications/alterations and issuing Section 408 approvals concurring that the proposed changes shall not be injurious to the public and shall not impair the usefulness of the USACE project.

Flood Control Act of 1944

The Flood Control Act authorizes various USACE water development projects. The intent of this statute was to limit the authorization and construction of navigation, flood control, and other water projects to those having significant benefits for navigation and which could be operated consistent with other river uses.

Section 208 (33 CFR 208.10) of the Flood Control Act authorizes the USACE to grant permission for relatively minor, low impact modifications/alterations to existing USACE projects. These modifications/alterations are administered at the local level with approval by the USACE District Engineer, are related to local flood protection, and are typically in support of the operation and maintenance of a USACE project or have no impact to operation and maintenance. These types of modifications/alterations may include operations and maintenance activities required on levees, flood walls, closure structures, pumping plants, channels and floodways, and other changes such as the placement of structures such as pipelines, pump stations, trails, fences, sidewalks, power poles, roads, etc. passing over or through a USACE project.

National Flood Insurance Act (NFIA) of 1968

The purpose of the NFIA is to provide flood insurance protection to property owners in flood prone areas. The National Flood Insurance Program (NFIP) was established to reduce future flood losses through local floodplain management. NFIP requires participating cities, counties, or states, to adopt floodplain management ordinances containing certain minimum requirements intended to reduce future flood losses. The local jurisdiction is responsible for coordinating with the Federal Emergency Management Agency (FEMA) any alterations or relocation of a waterway and proposals for amendments to FEMA flood insurance rate maps (FIRMs) made necessary to support a transportation project.

Executive Order (EO) 11988 – Floodplain Management

EO 11988 requires all federal agencies to comply with NFIP criteria. It is the basis for assessment of flood hazards that may be related to highway improvements encroaching on or affecting base flood level.

Consistency with NFIP is required by the FHWA for all federal-aid highway funding. The FHWA recognizes the NFIP standard that provides for up to a 1-foot increase in flood stages when designating a floodway or when evaluating an encroachment where no floodway is designated. A highway encroachment cannot increase the water surface elevation of the 100-year flood more than 1 foot at any point in the community; however, local requirements may restrict the rise of surface elevation even further.

EO 11990 – Protection of Wetlands

EO 11990 requires that a federal agency avoid construction or management practices that would adversely affect wetlands unless that agency finds that there is no practicable alternative and the proposed action includes all practicable measures to minimize harm to the wetlands.

EO 11990 directs all federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural beneficial values of wetlands in the conduct of the agency's responsibilities for acquiring, managing, and disposing of federal lands and facilities; providing federally-undertaken, -financed, or -assisted construction and improvements; and conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities.

Wild and Scenic Rivers Act of 1986

The Wild and Scenic Rivers Act (16 USC 1271-1287) establishes a National Wild and Scenic Rivers System and prescribes the methods and standards through which additional rivers may be identified and added to the system. This Act authorizes the Secretary of the Interior and the Secretary of Agriculture to study areas and submit proposals to the President and Congress for addition to the system. This Act also describes procedures and limitations for control of lands in federally administered components of the system and for dealing with disposition of lands and minerals under federal ownership. Rivers are classified as wild, scenic or recreational, and hunting and fishing are permitted in components of the system under applicable federal and state laws.

Coastal Zone Management Act of 1972

The Coastal Zone Management Act encourages states/tribes to preserve, protect, develop, and where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and

wildlife using those habitats. It includes areas bordering the Atlantic, Pacific, and Arctic Oceans, Gulf of Mexico, Long Island Sound, and Great Lakes.

Participation by states/tribes is strictly voluntary. To encourage states/tribes to participate, the act makes federal financial assistance available to any coastal state, tribe, or territory, including those on the Great Lakes, that is willing to develop and implement a comprehensive coastal management program. Most eligible states/tribes are, or will be, participating in the program.

Texas Coastal Management Program (TCMP)

The TCMP is based primarily on the Coastal Coordination Act of 1991 (Texas Natural Resources Code, 33.201 et seq.). The TCMP established a Coastal Coordination Council (CCC) headed by the Texas Land Commissioner. The CCC, consisting of a multi-agency panel, reviews projects and proposed rules to determine whether or not projects or actions in coastal counties conform to the TCMP. The CCC review determines if the proposed action is consistent with the goals and policies of the TCMP. The CCC decision is referred to as a consistency determination. Federal permits may not be issued unless the CCC determines that the action is consistent with the TCMP.

TxDOT/TCEQ Memorandum of Understanding (MOU) of 2001

The MOU between TxDOT and the TCEQ instituted a formal mechanism streamlining coordination between the agencies by consolidating separate MOUs in the air regulations (30 TAC 114.250) and in the water regulations (30 TAC 305.521). The MOU addresses transportation planning issues (required by the Texas Transportation Code (201.607)), between TxDOT and state natural resource agencies, specifically including the processing of documents required by NEPA. The MOU establishes periods for review of documents coordinated under 201.607, and ensures coordination between the agencies on road projects that are likely to have environmental impacts.

1.3.3 Biological

Endangered Species Act (ESA) of 1973

The ESA, as amended (16 USC 1531-1544), ensures that any actions authorized, funded, or carried out by federal agencies do not jeopardize the continued existence of any listed endangered or threatened species or adversely modify or destroy critical habitat of such species. An “endangered” species is defined as one that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is defined as one that is likely to become endangered in the foreseeable future.

The purpose of the ESA is to conserve threatened and endangered species and the ecosystems that they depend on and to establish a process for adding qualified species (and habitat critical to their continued existence) to the official list through a formal rulemaking procedure that includes public input and involvement. The ESA applies to any project that may impact threatened or endangered species and/or their associated critical habitat. Any time an action may affect a listed species or its critical habitat, the agency, organization or individual taking the action shall consult with the United States Fish and Wildlife Service (USFWS). Failure to comply with the ESA can result in civil and criminal penalties.

The Secretary of the Interior, through the Endangered Species Program of the USFWS, determines whether to add a species to the federal list of endangered or threatened wildlife and plants. Once a species is listed, the ESA prohibits the following actions unless permitted:

- Import, export, interstate transport or sale of protected animals and plants without a permit;
- Killing, harming, harassing, possessing, or removing protected animals from the wild without a permit or without consulting with the USFWS; and
- Removing listed plants from federal lands without a permit.

Section 7 of the ESA requires federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat. This section of the ESA details the consultation process by which the lead federal agency coordinates with the USFWS. This consultation process is further implemented by regulation (50 CFR 402).

Section 10 of the ESA allows the USFWS to issue permits for the “incidental taking” of protected species. Approval must be obtained prior to conducting any activity that may “take” a threatened or endangered species. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. A Section 10 incidental take permit allows the holder to take a listed species when the action involved is incidental to, and not the purpose of, an otherwise lawful activity.

Fish and Wildlife Coordination Act (FWCA) of 1958

The FWCA (16 USC 661-667e), as amended in 1964, was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The statute requires federal agencies to coordinate those projects that have a potential effect on fish and wildlife resources with the applicable federal/state resource agencies, to take action to prevent loss or damage to these resources, and to provide for the development and improvement of these resources.

The FWCA requires that federal agencies obtain comments from the USFWS and the Texas Parks and Wildlife Department (TPWD). This coordination is required whenever a project involves impounding, diverting, or deepening a stream channel or other body of water. Compliance with the FWCA occurs through coordination with the USFWS and the TPWD Wildlife Habitat Assessment Program.

Migratory Bird Treaty Act (MBTA) of 1918

The U.S. and Great Britain (representing Canada) initially signed the Migratory Bird Treaty in 1916 to protect migratory bird species shared by Canada and the U.S. The provisions of the Treaty were formally implemented when the U.S. Congress enacted the MBTA in 1918. In addition to Canada, the current version of the MBTA includes three additional international treaties with Mexico, Japan, and Russia. The MBTA protects over 800 species of wild birds and provides for closed and open hunting seasons for game birds. According to this federal law, it is illegal to “pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg or any such bird, unless authorized under a permit.” Take is defined as: “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.”

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1976

In 1996, amendments to the MSFCMA (16 USC 1801-1884), set forth a mandate for the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries), regional fishery management councils, and other federal agencies to identify and protect important marine and anadromous fish habitat.

Essential fish habitat (EFH) provisions of the MSFCMA support one of the nation's marine resource management goals of maintaining sustainable fisheries. Federal agencies that fund, permit, or carry out activities that may adversely impact EFH are required to consult with NOAA Fisheries regarding the potential effects of their actions on EFH.

EO 13112 - Invasive Species

EO 13112 was signed on February 3, 1999. It established the National Invasive Species Council (NISC). The NISC provides direction to federal agencies in the tasks of identifying and controlling plant and animal invasive species. The NISC is also tasked with developing a national invasive species management plan to identify, monitor, and control invasive species. The management plan requires that any federal action not contribute to the introduction or spread of invasive species identified on state Invasive Species Lists.

The Texas Department of Agriculture (TDA) and the TPWD regulate the importation, transport, sale, and control of invasive species in Texas (4 TAC 19.300(a) and 31 TAC 57.111(16-18), respectively). The introduction or spread of the invasive species regulated by the TDA and the TPWD is prohibited regardless of the funding source of a project.

Executive Memorandum - Beneficial Landscaping

The Executive Memorandum of April 26, 1994 discusses landscaping requirements for federal projects. In addition, TxDOT issued *Guidance on Environmentally Beneficial Landscaping Practices and NEPA Compliance*, dated July 5, 1996. The guidance requires that federal projects be designed to:

- Use regionally native plants for landscaping;
- Design, use, or promote construction practices that minimize adverse effects on the natural habitat;
- Seek to prevent pollution by, among other things, reducing fertilizer and pesticide use; and
- Implement water-efficient and runoff reduction practices.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1972

FIFRA established procedures for registering pesticides with the United States Department of Agriculture (USDA) and established labeling provisions. FIFRA has been amended numerous times since its creation. In its current form, FIFRA mandates that the EPA regulate the use and sale of pesticides to protect human health and preserve the environment. Specifically, Section 12(a)(2)(G) of the Act protects endangered plants by prohibiting the application of herbicides on threatened or endangered plant species which may be encountered in proposed project right-of-way (ROW).

TxDOT/TPWD Memorandum of Understanding of 1998

The MOU between TxDOT and the TPWD instituted a formal mechanism for review of TxDOT transportation projects by the TPWD, including those that have the potential to affect natural

resources within facilities owned or managed by the TPWD. The MOU identifies which projects must be coordinated through the TPWD. The MOU encourages early coordination through project development and requires submission of the draft environmental document to the TPWD Wildlife Habitat Assessment Program. The TPWD has 45 days to provide comments and an additional 30 days if additional information is requested.

TxDOT/TPWD Memorandum of Agreement of 1998

The TxDOT/TPWD Memorandum of Agreement (MOA) provides detailed descriptions and guidelines of what to include in environmental documents (per the TxDOT/TPWD MOU) as well as habitat characterizations and mitigation recommendations.

1.3.4 Cultural

National Historic Preservation Act (NHPA) of 1966

Section 106 of the NHPA requires the FHWA to take into account the effects of federally-funded and permitted projects on historic properties, to coordinate these efforts with the Texas Historical Commission (THC)/State Historic Preservation Officer (SHPO), and to avoid, minimize, or mitigate any adverse effects on historic properties. Historic properties, as defined by Section 106, are any buildings, structures, objects, districts, archeological sites, or traditional cultural properties listed on, or eligible for listing on, the National Register of Historic Places (NRHP). The regulations implementing Section 106 of NHPA are located in 36 CFR 800.

The FHWA's obligations under NHPA and 36 CFR 800 exist independently of NEPA or any other environmental law. The NHPA requires THC/SHPO coordination for all projects with FHWA funding or regulatory involvement of any federal agency. The FHWA's obligations under the NHPA are the same regardless of the level of environmental documentation a project requires. Section 106 coordination with the THC/SHPO, Indian tribes, consulting parties, and members of the interested public must be completed and documented before the FHWA can legally approve the expenditure of federal dollars on proposed transportation projects.

Programmatic Agreement for Transportation Undertakings (PA-TU) of 2005

On December 29, 2005, the PA-TU was executed among the FHWA, the THC/SHPO, the Advisory Council on Historic Preservation (ACHP), and TxDOT in order to streamline Section 106 consultation and review of transportation projects. The PA-TU provides for regulatory authority to the TxDOT Environmental Affairs Division (TxDOT ENV), to identify and evaluate cultural resources, under certain conditions, and when historic resources are present, to assess potential project impacts and/or effects without conducting consultation and review with the THC/SHPO.

TxDOT/THC Memorandum of Understanding of 1993

The MOU between TxDOT and the THC instituted a formal mechanism fostering the joint review of the impact of federal projects on cultural resources. This MOU provides for the preservation of the environment; wise, productive use of cultural and natural resources; good stewardship of historic landmarks; and protection of public and private investment in historic properties. This MOU also provides increased coordination and communication between agencies to ensure that historical properties and archeological sites are given full consideration in a uniform and timely manner.

Archeological Resources Protection Act (ARPA) of 1979

The National Park Service (NPS) is charged with preserving and protecting many historic, cultural, and natural resources which are important to our national heritage. Archeological resources, such as prehistoric and historic sites, and the artifacts found within them located on any federal property are also protected. In order to better protect archeological resources, Congress passed the ARPA which makes it illegal to collect artifacts or dig in archeological sites on federal land without a permit. The purpose of the ARPA is to secure, for the present and future benefit of the American people, the protection of archeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals having collections of archeological resources and data which were obtained before the date of the enactment of this Act.

Antiquities Code of Texas (ACT)

The ACT was established by Senate Bill No. 58, Chapter 442, Government Code of Texas, and was redefined as the Texas Natural Resource Code of 1977, a formal revision of the statutes relating to the public domain. Title 9, Chapter 191 of the Resource Code pertains to the ACT. Further revisions to the ACT were added from 1983 to 1997.

In 1995 the 74th Legislature abolished the Texas Antiquities Committee and made the THC the legal custodian of the ACT, and therefore, all cultural resources, historic and prehistoric, within the public domain of the State of Texas. Such diverse resources as historic buildings, shipwrecks, and aboriginal campsites fall within the jurisdiction of the THC. These sites may be designated as State Archeological Landmarks (SALs) by the THC.

The ACT requires that a Texas Antiquities Permit (TAP) be obtained from the THC to conduct archeological investigations of cultural resources.

The ACT requires state agencies and political subdivisions of the state, such as NTTA, to notify the THC of any action on public land involving ground disturbance, earth moving, or any project that has the potential to disturb recorded historic or archeological sites. The ACT allows for all archeological properties to be considered SALs, and requires that each be examined in terms of possible significance. This requirement exists independently of NEPA or any other environmental law. THC/SHPO concurrence is also required on measures to avoid, minimize, or mitigate impacts to cultural resources that qualify as SALs.

Significance standards for the ACT are clearly outlined under Chapter 26 of the THC *Rules of Practice and Procedure for the ACT* and closely follow those of the *Secretary of the Interior's Standards and Guidelines*.

Native American Grave Protection and Repatriation Act (NAGPRA) of 1990

The NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items (e.g., human remains, funerary objects, sacred objects, and objects of cultural patrimony) to lineal descendants, culturally affiliated Indian tribes, and Native Hawaiian organizations.

1.3.5 Physical

Clean Air Act (CAA) of 1963

The CAA (42 USC 7401-7671q) established permanent federal support for air pollution research and provided federal assistance to states for development of pollution control agencies. The CAA has been amended several times.

In order to protect human health and the environment, the Clean Air Act Amendments (CAAA) of 1970 mandated the establishment of the National Ambient Air Quality Standards (NAAQS) and regulations to reduce air pollutants. The NAAQS include six criteria pollutants: ozone (O₃), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), lead (Pb), and particulate matter (PM-2.5 and PM-10). When the pollutant level within an area exceeds the NAAQS, the EPA designates the area as “nonattainment” for the pollutant.

The CAAA of 1977 strengthened the original Act and established deadlines for reaching air quality attainment status. The 1977 amendment also required the development and implementation of State Implementation Plans (SIPs) to bring air quality nonattainment areas into compliance with the NAAQS.

The legal authority for federal programs regarding air pollution control from transportation projects is largely based on the 1990 CAAA. The 1990 CAAA placed much of the responsibility to control air pollution on the transportation community. The 1990 CAAA created a balanced strategy to address the problem of urban smog. Overall, the CAAA reveal the Congress’ high expectations of the states and the federal government. While it gives states more time to meet the air quality standard, it also requires states to make constant formidable progress in reducing emissions. It requires the federal government to reduce emissions from cars, trucks, and buses; from consumer products; and from ships and barges during loading and unloading of petroleum products.

The 1990 CAAA established specific criteria which must be met for air quality nonattainment areas. The criteria are based on the severity of the air pollution problem and include the development and implementation of SIPs and specific timetables for implementing mobile source emission control strategies. If the criteria are not met, the EPA can levy sanctions on all or part of the state. Sanctions include stricter industrial controls and the withholding of federal highway funds.

The 1990 CAAA address the urban air pollution problems of O₃, CO, and PM-10. Specifically, the 1990 CAAA clarify how areas are designated and re-designated attainment. The 1990 CAAA also allow the EPA to define the boundaries of nonattainment areas. For the pollutant O₃, the 1990 CAAA establish five nonattainment area classifications ranked according to the severity of the air pollution problem in the area. The five classifications are: marginal, moderate, serious, severe, and extreme. The DFW area is classified to be in “moderate” nonattainment for O₃. The EPA assigns each nonattainment area one of these categories, thus triggering varying requirements the area must comply with in order to meet the O₃ standard (conformity determination).

The 1990 CAAA established tighter pollution standards for emissions from automobiles and trucks. These standards will reduce tailpipe emissions of hydrocarbons, CO, and nitrogen oxides (NO_x) on a phased-in basis beginning in model year 1994.

The 1990 CAAA resulted in a greatly expanded program for controlling toxic or hazardous air pollutants (HAP) which offers a comprehensive plan for achieving significant reductions in emissions of HAP from major sources including the six priority transportation toxics known as mobile source air toxics (MSAT). According to the EPA, MSAT are compounds emitted from highway vehicles and non-road equipment which are known or suspected to cause cancer or other serious health and environmental effects.

Although the EPA has not established regulatory standards for MSAT that can be utilized in the project development process, air toxics concerns are being raised more frequently during the planning process of transportation projects. As the science emerges, the transportation community is increasingly expected by the public and other agencies to address potential MSAT impacts in environmental documents.

Noise Control Act of 1972

The Noise Control Act establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act establishes a means for the coordination of federal research and activities in noise control, authorizes the establishment of federal noise emissions standards for products distributed in commerce, and provides information to the public respecting the noise emission and noise reduction characteristics of such products (42 USC 4901). The Act also includes a provision for citizen suits (42 USC 4911(a)) whereby any person may commence civil action against the U.S. or any governmental instrumentality or agency who is alleged to be in violation of any noise control requirement.

23 CFR 620.103 – Highway Improvements in the Vicinity of Airports

With this policy, the FHWA encourages all highway and airport agencies to cooperate to achieve safety and economy in highway and airport development and operation. Any proposed highway project utilizing federal funds that is within 2 miles of an airport shall be examined for the potential of substandard airway-highway clearance and coordinated with the Federal Aviation Administration (FAA) if potential conflicts exist.

Resource Conservation and Recovery Act (RCRA) of 1976

RCRA, (42 USC 6901 et seq.), governs the management of non-hazardous solid waste, hazardous waste, and underground storage tanks (USTs). Specifically, the RCRA program regulates:

- Solid waste recycling and disposal;
- Federal procurement of products containing recycled materials;
- Waste minimization;
- Hazardous waste generators and transporters; and
- Hazardous waste treatment, storage, and disposal facilities (TSDFs).

The Hazardous and Solid Waste Amendments (HSWA) of 1984 broadened the scope of RCRA, authorizing the EPA to regulate USTs containing petroleum products and hazardous substances. Appropriate inquiry may help to avoid liability by identifying known or possible hazardous waste contamination and regulated facilities. Once identified, the closure of hazardous waste disposal units within any proposed ROW will need to be coordinated with owners and operators of RCRA facilities and the applicable state and federal regulatory

agencies (the TCEQ and the EPA). All hazardous wastes generated will need to be handled according to applicable regulations either prior to or during construction.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980
CERCLA (42 USC 9601-9675) is best known for its Superfund program and provides the EPA with the authority to respond to releases or threatened releases of hazardous substances, pollutants, or contaminants that may endanger human health or the environment. Superfund was primarily designed to remedy the mistakes in hazardous waste management made in the past at sites that have been abandoned or where a responsible party cannot be identified. CERCLA requires reporting of releases, identifies four classes of parties liable for the release, and establishes a trust fund to provide for cleanup when no responsible party can be identified. The term hazardous substance excludes petroleum products, natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel.

CERCLA does provide for certain defenses from liability, but all of these defenses generally require that the potentially liable party undertake “all appropriate inquiry” (as defined in the EPA regulations at 40 CFR 312) before taking ownership or control of the contaminated property.

Texas Solid Waste Disposal Act of 1969

The Texas Solid Waste Disposal Act is the state equivalent to CERCLA. The Texas Solid Waste Disposal Act directed the Texas Department of State Health Services (TDSHS) to regulate the design, construction, and operation of municipal solid waste facilities. The regulation of municipal solid waste was subsequently transferred to the Texas Water Commission, the predecessor agency of the current TCEQ. In 1987, the Texas Solid Waste Disposal Act was amended to include as state policy a preferred hierarchy of treatment methods for the management of hazardous waste, municipal waste, and municipal sludge.

Texas Hazardous Substances Spill Prevention and Control Act of 1996

Under Chapter 26 of the Texas Water Code, the persons responsible for discharges or spills of hazardous substances include: owner or operator of a vessel or a facility from which a spill emanates and any other person who causes, suffers, allows, or permits a spill or discharge.

Farmland Protection Policy Act (FPPA) of 1981

The FPPA (7 USC 4201-4209), P.L. 97-98 and amendments, 9 USC 4201[b]) authorizes the USDA Natural Resources Conservation Service (NRCS) to develop criteria for identifying the effects of federal programs on the conversion of farmland to non-agricultural uses. It is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The FPPA assures that, to the extent possible, federal programs are administered to be compatible with F, local units of government, and private programs and policies to protect farmland. For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance as defined by applicable agency regulations. Farmland subject to FPPA requirements does not have to be currently used for cropland.

Coastal Barrier Resources Act (CBRA) of 1982

The CBRA (16 USC 3501-3510) outlines requirements to minimize the loss of life, wasteful expenditures of federal money, and damage to the natural and other resources of coastal barrier systems along the Atlantic and Gulf coasts. The CBRA identifies coastal areas that are

protected by placing restrictions on the use of federal funds for developmental activities, including federally-funded highway projects.

1.3.6 Community

Title VI of the Civil Rights Act of 1964

Title VI assures that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under federally-assisted programs on the basis of race, color, or national origin. Integrating Title VI into the NEPA process ensures that specific community issues (i.e., potential impacts to low-income and minority populations) are identified and addressed in transportation activities through EO 12898. The Act also ensures opportunities for meaningful public involvement through EO 13166.

EO 12898 – Environmental Justice

The EO, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), requires that federally-funded projects identify and address disproportionately high and adverse health and environmental impacts on minority populations and low-income populations.

EO 13166 – Limited English Proficiency

The EO, Improving Access to Services for Persons with Limited English Proficiency (LEP), requires federal agencies to examine the services they provide and identify any special communication needs for populations with LEP, such as requests for an interpreter (for language or other special communication needs) to be present at public meetings. The EO further states that recipients of federal financial assistance must provide meaningful access to their LEP applicants and beneficiaries.

Uniform Relocation Assistance and Real Property Acquisition Policies Act (URARPAPA) of 1970

URARPAPA, amended in 1987, mandates that property owners receive compensation for properties acquired for transportation projects and requires nondiscriminatory ROW policies with regard to appraisals and acquisitions of homes and businesses and residential relocations.

USDOT Act of 1966

Section 4(f) of the USDOT Act (23 USC 138 and 49 USC 303) requires federal agencies to provide justification when ROW is proposed to be taken from publicly owned parks, recreation areas, wildlife or waterfowl refuges, publicly or privately owned historic properties and/or archeological sites that merit preservation in place. Section 4(f) documentation must provide that there is no prudent or feasible alternative to the proposed federal action and that the project includes all possible planning to minimize harm to the resource.

FHWA Section 4(f) Regulations (23 CFR 774)

The purpose of 23 CFR 774 is to implement 23 USC 138 and 49 USC 303, which were originally enacted as Section 4(f) of the USDOT Act of 1966 and are still commonly referred to as Section 4(f).

In August 2005, Section 6009 of SAFETEA-LU, made the first substantive revision to Section 4(f) since the USDOT Act of 1966. This included revision to the current Section 4(f) regulations, in addition to incorporation of the Section 4(f) de minimis provision.

Section 6009 of SAFETEA-LU, which amended the existing Section 4(f) legislation at both 49 USC 303 and 23 USC 138, simplified the process and approval of projects that have only de minimis impacts on lands impacted by Section 4(f). Under the new provisions, once the USDOT determines that a transportation use of Section 4(f) property results in a de minimis impact, analysis of avoidance alternatives are not required and the Section 4(f) evaluation process is complete. The FHWA/FTA *De Minimis Impact Guidance* issued December 13, 2005 remains in effect.

On March 12, 2008, the FHWA issued a final rule, which clarified the Section 4(f) approval process and simplified its regulatory requirements. The final rule modified the procedures for granting Section 4(f) approvals in the following ways:

- Clarified the factors to be considered and the standards to apply when determining if an alternative for avoiding the use of a Section 4(f) property is feasible and prudent;
- Clarified factors to be considered when selecting a project alternative in situations where all alternatives would use some Section 4(f) property;
- Established procedures for determining that the use of a Section 4(f) property has a de minimis impact on the property;
- Updated the regulation to recognize statutory and common-sense exceptions for uses that advance the preservation purpose of Section 4(f), as well as the option of applying a programmatic Section 4(f) evaluation;
- Moved the Section 4(f) regulation out of 23 CFR 771.135 to its own place in 23 CFR 774 with a reorganized structure that is easier to use.

Chapter 26 of the Texas Statutes of the Parks and Wildlife Code

Chapter 26, Protection of Public Parks and Recreational Lands, of the Texas Statutes of the Parks and Wildlife Code provides that the use of parkland for non-park purposes may be approved upon a finding that there is no feasible and prudent alternative to the use of this land. A finding may be made only after notice and a public hearing. Chapter 26 states that a department, agency, political subdivision, county, or municipality of the State of Texas may not approve any program or project that requires the use or taking of any public land designated and used prior to the designation of the program or project as a park, recreation area, scientific area, wildlife refuge, or historic site, unless the department, agency, political subdivision, county, or municipality, acting through its duly authorized governing body or officer, determines that there is no feasible and prudent alternative to the use or taking of such land and the program or project includes all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge, or historic site, resulting from the use or taking.

Land and Water Conservation Fund Act (LWCFA) of 1965

Section 6(f) of the LWCFA (36 CFR 59) established a land and water conservation fund to assist local, state, and federal agencies in meeting the demand for outdoor recreation sites. When parkland has been acquired or developed with funds provided by the LWCFA and this land is required for transportation ROW, a Section 6(f) evaluation process shall be followed. These properties may be converted to transportation use only if the land is replaced with property, which is reasonably equivalent in usefulness and is of at least the same fair market value. Special coordination with the NPS and the United States Department of Interior (USDOI) is necessary for parks where this funding has been utilized.

2.0 Roles and Responsibilities

The NTTA is a regional tollway authority and a political subdivision of the State of Texas, which is governed by Chapter 366 of the Texas Transportation Code. The NTTA is authorized to acquire, design, construct, maintain, repair, and operate tollway projects; to raise capital for construction projects through issuance of tollway revenue obligations; to collect tolls to operate, maintain, and pay debt services on those projects in its member counties (Collin, Dallas, Denton, and Tarrant); and to extend facilities into adjacent counties. The NTTA has two representatives from each of these four counties on its Board of Directors as well as one member appointed by the Governor of Texas from a county adjacent to the NTTA four-county service area.

The NTTA's design, environmental, and construction management consultants (CMC) support the NTTA mission to provide a fiscally sound system of innovative toll facilities, services, and solutions that improve the mobility, quality of life, and economy of North Texas. The NTTA shall work in conjunction with federal and state agencies and local municipalities/entities to encourage that local project partners adhere to NTTA environmental policy and strive toward its commitment to environmental stewardship.

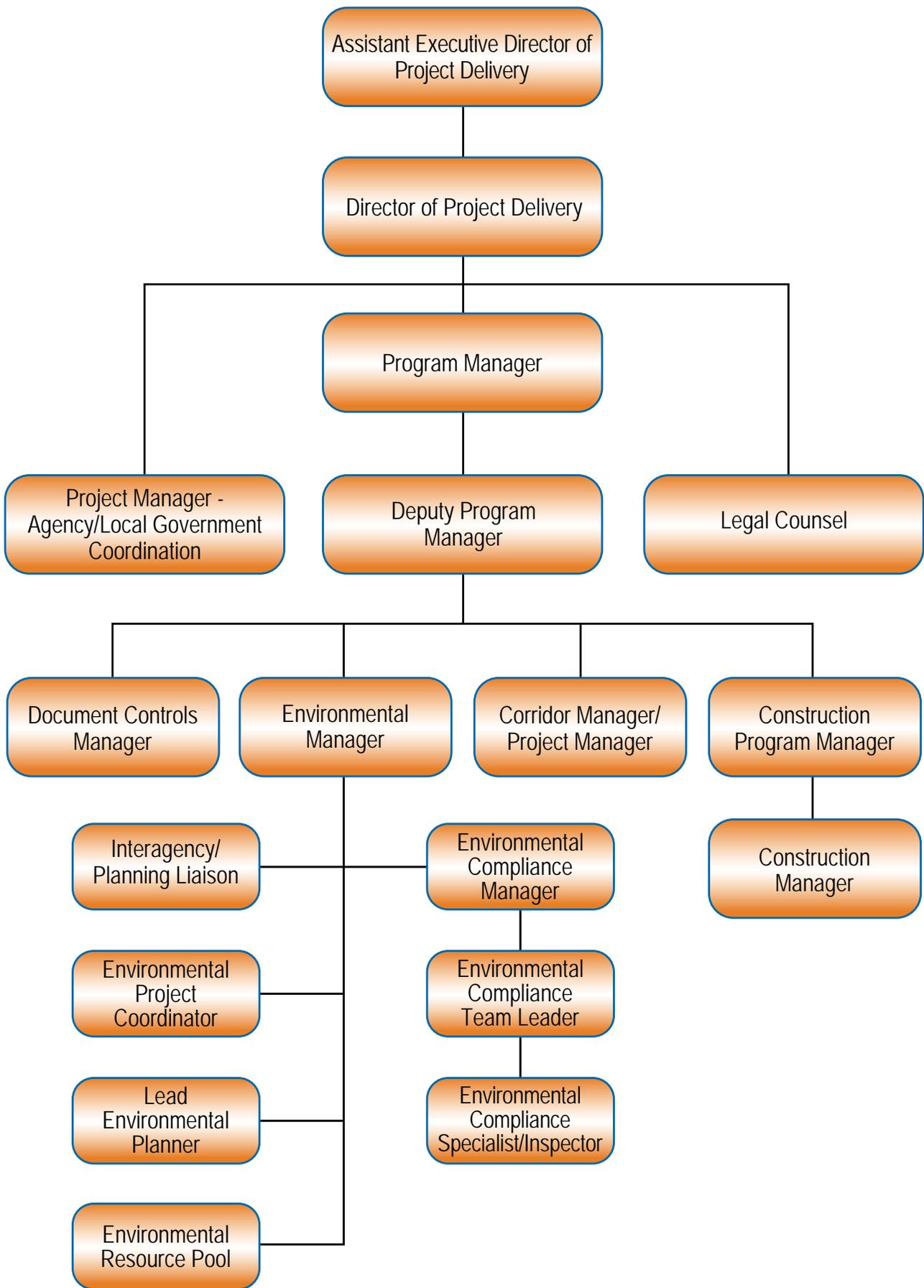
2.1 NTTA

2.1.1 Project Delivery Department Responsibilities

The NTTA Project Delivery Department (PDD) has the responsibility to deliver corridor projects through the corridor planning, project development, final design, construction, and open-to-traffic activities via authorization of the NTTA Board of Directors. Environmental clearance and compliance occur during the project development and construction phases of the NTTA project delivery life cycle. The PDD is also responsible for administering Capital Improvement Projects for existing NTTA facilities. A Program Management Consultant (PMC) and a Capital Improvement Program (CIP) Office were established within the PDD to assist with the management of these responsibilities. Refer to **Figure 2-1: Project Delivery Department Staff with Environmental Responsibilities** for a PDD organizational chart.

The PMC is responsible for overseeing and managing project development, final design, and construction of corridor projects through corridor teams. These corridor teams are focused on particular projects within designated transportation corridors. The CIP Office is responsible for project development, project management, program controls, program support, and final project delivery of projects that involve the improvement of existing NTTA facilities. The PMC and CIP teams are composed of NTTA personnel and consultants. The PMC and CIP Office are responsible for managing project delivery components inclusive of scheduling and financial control; contract administration; document control; design, environmental clearance, development and construction; public involvement and communications; and quality management.

All coordination regarding environmental documentation, permitting, and compliance for PMC corridor projects and CIP projects occurs through PDD Environmental Staff. The PDD coordinates with the TxDOT Dallas and Fort Worth Districts, TxDOT ENV, the FHWA, the USACE, and other federal, state, and local agencies, as appropriate, for NTTA's proposed tollway construction and improvement projects.



Project Delivery Department Staff with Environmental Responsibilities

Figure 2-1

2.1.2 Staff Responsibilities

The NTTA PDD staff with environmental roles and responsibilities are described below and illustrated in **Figure 2-1**.

Assistant Executive Director of Project Delivery

The Assistant Executive Director of Project Delivery (AEDPD) oversees the management of all corridor projects and major improvements to the existing NTTA system. The AEDPD is the head of the PDD. The AEDPD is a member of the NTTA executive staff and is responsible for the approval of all NTTA environmental documents prior to Board Approval.

Director of Project Delivery

The Director of Project Delivery (DPD) is responsible for the day to day management of project implementation from the planning stage through construction on all corridor and capital improvement projects. The DPD reviews all NTTA environmental documents prior to Board and/or federal/state approval. The DPD also reviews and signs any necessary environmental permit applications and mitigation agreements required for corridor and capital improvement projects. The DPD is main point of contact with TxDOT and the FHWA for environmental coordination, submittals, receipt of agency comments, and conflict resolution.

Legal Counsel

The Legal Counsel consists of attorneys specializing in environmental law and other related fields that are responsible for performing legal sufficiency reviews of NTTA environmental documents, assisting in the preparation and execution of formal agreements, and assisting with coordination between NTTA and property owners/stakeholders.

Program Manager

The Program Manager is responsible for assisting the DPD and AEDPD in delivering all corridor projects. The Program Manager is responsible for delivering all projects in accordance with the PDD established policies and procedures.

Deputy Program Manager

The Deputy Program Manager is responsible for facilitating communications between the Program Manager, the Corridor/Project Managers, the Environmental Manager, and the Interagency/Planning Liaison and assuring that all corridors are developed in a consistent and timely manner. The Deputy Program Manager reviews all aspects of a PMC corridor or CIP project from schedules, costs, environmental, engineering, and construction plan development.

Corridor Manager/Project Manager

The Corridor Manager/Project Manager is responsible for working with the Environmental Manager and Lead Environmental Planner to ensure the environmental requirements and deliverables are met for his/her corridor project. The Corridor Manager/Project Manager is responsible for providing the Environmental Manager and Lead Environmental Planner with the design details needed for corridor environmental studies. The Corridor Manager/Project Manager is also responsible for coordinating with the Lead Environmental Planner and Environmental Consultant to ensure that a Verification is conducted for his/her corridor project and to determine whether a Re-assessment is necessary prior to construction for locally-funded projects. The Corridor Manager/Project Manager is also responsible for providing the Document Controls Manager with relevant project correspondence and decision documents for

inclusion in the administrative record, if applicable. The Corridor Manager/Project Manager is responsible for performing a final quality assurance review of environmental documents prior to submittal to NTTA, TxDOT, and/or the FHWA.

Project Manager - Agency/Local Government Coordination

The Project Manager of Agency/Local Government Coordination is the primary point of contact with the regional Metropolitan Planning Organization (MPO). The Project Manager maintains coordination with the MPO to ensure that NTTA's proposed projects are included in and consistent with the current Metropolitan Transportation Plan (MTP), the required Transportation Improvement Program (TIP), and the Statewide Transportation Improvement Program (STIP). The Project Manager works closely with the Interagency/Planning Liaison to provide timely MTP/TIP/STIP updates to the MPO, TxDOT, and the FHWA.

The Project Manager of Agency/Local Government Coordination is also responsible for interfacing with the PMC and CIP Office to ensure quality and adherence to NTTA environmental policy and procedures, to facilitate the environmental clearance of projects, and to manage the timely delivery of all tollway construction projects. The Project Manager is the environmental and preliminary engineering point of contact with federal, state, and local agencies for the processing of environmental documents; regulatory permits; schematic plans; and Plans, Specifications, and Estimates (PS&E) for projects receiving federal/state funding. The Project Manager participates in program-wide and project-specific interagency workshops/meetings and attends public meetings/hearings for proposed toll facilities.

Environmental Manager

The Environmental Manager is responsible for overseeing the environmental planning and environmental compliance aspects of all PMC corridors and CIP projects. The Environmental Manager communicates corridor environmental requirements, issues, and status to the Program Manager and Deputy Program Managers. The Environmental Manager oversees the work of the Environmental Project Coordinator, Lead Environmental Planners, Environmental Resource Pool, and the Environmental Compliance Manager (ECM). The Environmental Manager performs quality control on environmental deliverables and verifies that Environmental Staff follow the policies and procedures established in this Manual and complete the needed analyses, reports, and coordination required by federal, state, and local laws, ordinances, and statutes. The Environmental Manager is also responsible for providing the Document Controls Manager with environmental documentation necessary for inclusion in the administrative record.

Interagency/Planning Liaison

The Interagency/Planning Liaison is responsible for facilitating communication between the PDD and federal, state, and local agencies in order to expedite environmental coordination and clearance and the delivery of all corridor projects. The Interagency/Planning Liaison works closely with the Project Manager of Agency/Local Government Coordination to ensure consistency with the MTP/TIP/STIP for all proposed corridor and CIP projects. The Interagency/Planning Liaison is also responsible for providing the Document Controls Manager with agency coordination documentation necessary for inclusion in the administrative record.

Document Controls Manager

The Document Controls Manager is responsible for the management and oversight of the creation, formatting, indexing, maintenance, and file storage of an official administrative record. The Document Controls Manager is also responsible for maintaining compliance with the NTTA

record control program and for gathering, organizing, and reviewing PMC project files from the Corridor Manager/Project Manager, Environmental Manager, and Lead Environmental Planner. Maintenance of the official administrative record is the responsibility of the Environmental Consultant.

Environmental Project Coordinator

The Environmental Project Coordinator is responsible for tracking the progress of all environmental deliverables in the production schedules for all corridor projects. The Environmental Project Coordinator also attends all PMC corridors and CIP project meetings relating to environmental issues and assists the Environmental Manager with quality control of work performed by the Environmental Consultants for the various corridor projects.

Lead Environmental Planner

The Lead Environmental Planner is responsible for coordinating with the Corridor Manager/Project Manager and Environmental Consultant on the environmental issues and deliverables for a specific corridor/project. The Lead Environmental Planner is also responsible for coordinating with the Corridor Manager/Project Manager and Environmental Consultant to ensure that a Verification is conducted and to determine whether a Re-assessment is necessary prior to construction for locally-funded projects. The Lead Environmental Planner manages the day to day environmental activities for a corridor/project, draws upon the Environmental Resource Pool, reviews work performed by the Environmental Consultant, and prepares environmental documentation as needed.

Environmental Resource Pool

The Environmental Resource Pool consists of environmental planners and technical specialists that conduct and/or review the needed impact assessments and reports required for environmental documentation and clearance. These specialists are responsible for being familiar with current federal, state, and local laws, regulations, statutes and ordinances that affect their particular discipline. The Environmental Resource Pool consists of specialists in the areas of environmental document preparation, environmental quality control, biology, cultural resources, community planning, indirect and cumulative impacts, traffic noise, air quality, hazardous materials, wetland permitting, and storm water permitting.

Environmental Compliance Manager

The ECM provides oversight to verify NTTA compliance with federal, state, and local regulations in addition to environmental commitments made during project development. The ECM oversees the work of the Environmental Compliance Team (ECT) Leaders for the various NTTA corridors/projects and verifies that the ECTs are following the compliance and monitoring process as defined in this Manual. The ECM is also responsible for being familiar with corridor specific environmental permits, issues, and commitments (EPIC) and for ensuring that the EPIC are communicated to the Construction Manager and Contractor. The ECM also briefs NTTA executive staff on all nonconformance matters through special item meetings, regularly scheduled update meetings, or regularly scheduled reports, as appropriate.

Environmental Compliance Team Leader

The ECT Leader is responsible for environmental compliance on specific corridors as assigned. The ECT Leader coordinates the efforts of Environmental Compliance Specialists/Inspectors and notifies the ECM and Construction Manager of environmental issues that arise or may foreseeably arise for the assigned corridor.

Environmental Compliance Specialist/Inspector

The Environmental Compliance Specialist/Inspector is responsible for environmental compliance in the area of specialty for which the Specialist/Inspector is assigned. Environmental Compliance Specialists/Inspectors serve as subject matter experts in waters of the U.S. and Section 404 permitting, wildlife (including protected species), storm water management, cultural resources, and hazardous materials. These Specialists/Inspectors report to the ECT Leader.

Construction Program Manager

The Construction Program Manager is responsible for assisting the DPD and AEDPD in the final project delivery of all corridors in accordance with the PDD established policies and procedures related to construction activities. The Construction Program Manager is also responsible for the oversight of all construction managers and for assuring quality management and compliance verification for all corridors.

Construction Manager

The Construction Manager for the project is responsible for monitoring to verify that Contractors comply with the environmental compliance and monitoring process as defined in this Manual. The Construction Manager monitors construction activities in order to verify environmental compliance while achieving project delivery. Where NTTA does not assign an ECT, the Construction Manager shall be responsible for ECT processes provided in this Manual. In the event that environmental specialist services may prove to be required, the Construction Manager shall coordinate with the PDD to obtain such services.

2.2 Consultants

2.2.1 Environmental Consultants

Environmental Consultants are responsible for preparing the appropriate level of environmental documentation (**Chapter 3**), assessing impacts (**Chapter 4**), and obtaining the necessary permits (**Chapter 5**) for environmental clearance as needed for project approval. The Environmental Consultant team consists of a Project Manager that oversees a team of technical specialists in the development of the needed environmental documentation. The team shall have adequate knowledge and experience as defined below in developing needed analyses and reports. The Environmental Consultant is responsible for maintaining the agreed upon schedule and submittal deadlines responding to review comments by the PDD and other applicable agencies, conducting periodic reviews of the construction plans as they are developed, and assisting the Design Section Engineers (DSEs) with the development of EPIC sheet(s). The Environmental Consultant is also responsible for maintaining an official project file and administrative record, if necessary, in coordination with the PDD Document Controls Manager. The Environmental Consultant coordinates with the PDD Environmental Manager and Lead Environmental Planner on a regular basis regarding the development, status, scheduling, and review/approval of assigned environmental tasks.

The required and preferred qualifications for technical specialists that the Environmental Consultant may need to provide are described below. Environmental Consultant staff that do not meet the specific criteria, but are capable of providing the requested technical services, can be accepted with appropriate supervision based on written approval from the DPD and Environmental Manager. The specific requirements are subject to change based on the nature of corridor environmental constraints and/or a specific project contract.

Wetland Delineator

Minimum 3 years field experience in wetland delineation and completion of wetland delineation training course; Bachelor's degree in biology, ecology, or related field required.

Wetland Permitting Specialist

Minimum 3 years experience in evaluating proposed impacts to waters of the U.S. for transportation projects, preparing permit applications, working within the USACE permitting program, and monitoring permit commitments in the field for compliance positions; Bachelor's degree in biology, ecology, or related field required; Master's degree preferred.

Wetland Mitigation Planner

Minimum 3 years experience in assessing impacts and planning appropriate mitigation measures to waters of the U.S. for transportation projects; knowledge of USACE approved mitigation banks desired; Bachelor's degree in biology, ecology, or related field required; Master's degree preferred.

Storm Water Pollution Prevention Specialist

Minimum 3 years experience authoring permits and storm water pollution prevention plans (SW3Ps) as well as conducting field inspections and monitoring; Bachelor's degree in environmental science or related field required.

Wildlife Biologist

Minimum 3 years experience conducting habitat assessments and species determination for wildlife and/or vegetation (with knowledge of current protected species and/or habitats and a demonstrated ability to perform basic inventory work); Bachelor's degree in biology, wildlife biology, rangeland ecology, or related field required; Master's degree and Wildlife Biologist Certification (as certified by The Wildlife Society) preferred for compliance positions.

Protected Species Biologist

Minimum 5 years experience conducting surveys for federally-listed species, with demonstrated ability to support ESA Section 7 consultations and/or Section 10(a) permit applications and to survey project sites, classify vegetation communities, and identify special habitat features; experience with the appropriate survey protocols and possession of the required state and federal permits for listed species survey work; Bachelor's degree in wildlife biology or related field required; Master's degree preferred.

Historian

Minimum 5 years experience conducting historic resources reconnaissance and intensive surveys; Bachelor's degree in history, architectural history, public history, or related field required; Master's degree with 2 years experience with regulations pertaining to NEPA coordination with appropriate agencies (e.g., the THC and/or TxDOT) preferred. Must meet the Secretary of the Interior's standards for historian and/or architectural historian.

Archeologist

Minimum 5 years experience conducting reconnaissance and intensive archeological surveys and/or excavations; experience preparing survey documentation, testing reports, and data recovery plans; Bachelor's degree in archeology, anthropology, or related field required; Master's degree with 2 years experience as a Principal Investigator preferred. Must meet the Secretary of the Interior's standards for archeologist.

Cultural Resources Compliance Specialist

Minimum 5 years experience and familiarity with regulations pertaining to the protection of cultural resources and coordination with applicable state agencies; Bachelor's degree in history, archeology, or related field required; Master's degree preferred.

Air Quality Specialist

Minimum 3 years experience with transportation projects and air quality issues as well as the CALINE3 modeling application. Minimum 1 year experience with quantitative MSAT analysis. Bachelor's degree in environmental science or related field required.

Traffic Noise Analyst

Minimum 3 years experience with the FHWA approved Traffic Noise Model (TNM) and completion of a TNM training course; Bachelor's degree in environmental science or related field required; 3 years experience with the TxDOT *Guidelines for Analysis and Abatement of Highway Traffic Noise* preferred.

Hazardous Materials Specialist

Minimum 1 year experience performing Phase I environmental site assessments (ESA)/hazardous materials assessments; working knowledge of pertinent federal, state, and local environmental laws and regulations, American Society for Testing and Materials (ASTM) standard practices for ESA, and hazardous materials assessments/investigations; 3 years experience with current training for health hazards associated with exposure to hazardous substances in accordance with 29 CFR 1910.120(e)(3)(i) required for compliance positions; Bachelor's degree in geology, environmental science, or related field required.

Community Impacts Specialist

Minimum 3 years experience conducting socioeconomic studies, evaluating community impacts, and/or community planning; working knowledge of current environmental regulations and guidance for assessing impacts to environmental justice (EJ) populations, impacts to public lands, and indirect and cumulative impacts; Bachelor's degree in urban planning, environmental planning, transportation planning, or related field required; Master's degree, American Institute of Certified Planners certification, and experience with land use analysis concepts preferred.

Environmental Document Coordinator

Minimum 7 years experience coordinating the preparation of environmental documents for transportation projects in accordance with NEPA; familiarity with DFW regional planning issues and experience addressing TxDOT and FHWA quality review comments desired; Bachelor's degree in environmental studies, environmental management, transportation planning, or related field required; Master's degree preferred.

2.2.2 Design Consultants

Design Consultant(s) consist of one or more DSEs who are responsible for developing the PS&E for a particular section of a corridor project. The DSE oversees the day-to-day development and communicates any conflicts or issues directly to the Corridor Manager/Project Manager. The DSE oversees the development of PS&E and is responsible for maintaining the agreed upon schedule and submittal reviews. In addition, the DSE coordinates with the PDD Environmental Manager, Lead Environmental Planner, and Environmental Consultant to jointly develop EPIC sheet(s) and assure that project environmental commitments are appropriated

documented. The EPIC sheet(s) shall be reviewed and updated throughout the development of the PS&E during milestone reviews. The EPIC sheet(s) shall be included in the final PS&E package.

2.2.3 Construction Management Consultants

The CMCs are responsible for assuring that construction of the project (or section) is in full compliance with the PS&E and EPIC as well as laws, regulations, statutes, and ordinances. The CMC monitors the project on a day to day basis and reports any environmental nonconformance issues to the ECM and corridor ECT.

2.3 Agencies and Agreements

2.3.1 Federal Agencies and Responsibilities

Advisory Council on Historic Preservation

The ACHP promotes the preservation, enhancement, and productive use of the nation's historic resources, and advises the President and Congress on national historic preservation policy. Jurisdiction includes determining effects to properties included or eligible for inclusion on the NRHP. Coordinated work includes projects on proposed ROW potentially impacting culturally sensitive sites, prehistoric sites, historic sites and structures, cemeteries, etc.

United States Army Corps of Engineers

The USACE administers the wetlands permitting program under Section 404 of the CWA. The Secretary of the Army has the authority to issue permits for the discharge of dredged and fill material. Jurisdiction includes work in waters of the U.S., including rivers, streams, and wetlands. Coordinated work includes bridge and culvert replacements and repairs, fill or dredging in wetlands, erosion control, and scour protection.

Natural Resources Conservation Service

The NRCS improves, protects, and conserves natural resources on private lands through a cooperative partnership with local and state agencies. Jurisdiction includes work in agricultural lands which may be prime, important or unique farmland, or farmed wetlands. Coordinated work includes projects on proposed ROW involving the conversion of agricultural land-use areas.

United States Coast Guard

The USCG protects the public, the environment, and the U.S. economic and security interests in any maritime region in which those interests may be at risk, including international waters and America's coasts, ports, and inland waterways. Jurisdiction includes work in navigable waterways. Coordinated work includes work in waterways which may affect navigation such as bridges and causeways.

United States Fish and Wildlife Service

The USFWS works with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats. Jurisdiction includes federally-listed threatened and endangered species and their critical habitat. Coordinated work includes requesting review of Section 404 permit applications, review of field studies for threatened and endangered species, and development of mitigation plans. Projects receiving federal funds or federal permits that impact newly disturbed areas

need to be coordinated with the USFWS under the FWCA. Coordination is required when there is federal funding and habitat disturbance occurs on a previously undisturbed easement.

National Park Service

The NPS manages all National Parks, many National Monuments, and other conservation and historical properties. Jurisdiction includes work in Section 6(f) lands. These properties are lands which had Land and Water Conservation funds involved in their purchase or improvement. Coordinated work includes projects on proposed ROW involving the conversion or use of public lands purchased with these federal funds.

Federal Highway Administration

The FHWA oversees the development of federally-funded projects for constructing and maintaining the National Highway System. Jurisdiction includes work on the FHWA ROW, Interstate System Access approvals, or involvement as the environmental lead federal agency in the NEPA process. Coordinated work includes interstate system access approval, federal major projects documentation approval, and NEPA documentation guidance and approval/decision.

Refer to attachment **MAN-14-A5** for information regarding joint goals, roles/responsibilities, and interagency communication/submittal protocols between the FHWA, TxDOT, and NTTA.

United States Environmental Protection Agency

The EPA is charged with protecting human health and safeguarding the natural environment, including air, water, and land. Jurisdiction includes air quality, waters of the U.S., special waste, water quality, urban land use, and NEPA documentation. Coordinated work includes review of Environmental Impact Statement (EIS) documents. Of special note is the EPA's authority to oversee the USACE Section 404 permitting process and to override the issuance of any such permit (seldom used).

Federal Emergency Management Agency

FEMA regulates any alterations or relocation of a waterway and proposals for amendments to FEMA maps, with respect to NEPA. Coordinated work includes projects that would require an amendment of the FIRM maps or any expected increase in the base flood elevation (BFE) above the 1-foot maximum.

2.3.2 State Agencies and Responsibilities

Texas Department of Transportation

TxDOT collaborates with NTTA to develop alternatives, review and approve environmental documents, assist with public involvement, evaluate intersecting state highway and toll facilities, and coordinate with other projects, agencies, or facilities.

The TxDOT Dallas District (TxDOT DAL) plans, designs, builds, operates, and maintains the state transportation system in the following counties: Collin, Dallas, Denton, Ellis, Kaufman, Navarro, and Rockwall. The TxDOT Fort Worth District (TxDOT FTW) plans, designs, builds, operates, and maintains the state transportation system in the following counties: Erath, Hood, Jack, Johnson, Palo Pinto, Parker, Somervell, Tarrant, and Wise. These TxDOT districts are joint sponsors with NTTA on several corridor projects in the DFW area.

The TxDOT North Regional Support Center, based in Fort Worth, provides operational and project delivery support for the following TxDOT districts: Atlanta, Brownwood, Dallas, Fort Worth, Paris, Tyler, Waco, and Wichita Falls. The Regional Support Center's responsibilities include environmental support, project scheduling, coordination with MPOs, TIP/rural TIP, design resource coordination, corridor planning and schematics, ROW acquisition, and maintenance utility permits.

The TxDOT Environmental Affairs (ENV), Design (DES), Finance (FIN), and Bridge (BRG) Divisions work closely with NTTA to review and coordinate deliverables for federal/state funded corridor projects needing TxDOT and/or FHWA approval. TxDOT ENV responsibilities include reviewing and coordinating environmental documents as the liaison to state and federal resource agencies. TxDOT DES responsibilities include reviewing design policies and roadside safety criteria, reviewing Project Management Plans for federal major projects, and providing hydraulic design expertise. TxDOT FIN responsibilities include reviewing Financial Plans and Financial Plan Annual Updates for federal major projects. TxDOT BRG responsibilities include assisting with planning and reviewing bridge specifications.

Refer to attachment **MAN-14-A5** for information regarding joint goals, roles/responsibilities, and interagency communication/submittal protocols between TxDOT, the FHWA, and NTTA.

Texas Parks and Wildlife Department

The TPWD is a state agency responsible for overseeing and protecting wildlife and their habitats. In this capacity, the TPWD is responsible for managing the state's parks and historical areas and oversees Chapter 26 of the Texas Statutes of the Parks and Wildlife Code. Jurisdiction includes state-listed threatened and endangered species. Coordinated work includes projects involving known locations of state-listed threatened and endangered species or their habitat and impounding, diverting, or deepening a stream channel or other body of water.

Texas Commission on Environmental Quality

The TCEQ is the state agency charged with the enforcement of certain environmental regulations and with issuing and regulating air and water operating permits. Jurisdiction includes air quality, water quality, and hazardous materials. Coordination includes projects that have the potential to affect natural resources, including water pollution abatement plans and air quality plans.

Texas Historical Commission

The THC is the state agency responsible for historic preservation within the State of Texas, the THC administers the NRHP for sites in Texas and identifies Recorded Texas Historic Landmarks (RTHLs), SALs, and Historic Texas Cemeteries. Jurisdiction includes historic and archeological sites within Texas. Coordinated work includes projects that may impact historic and archeological sites.

Texas General Land Office

The Texas GLO administers easements for ROW across navigable or state-owned river and stream beds, islands, saltwater lakes, bays, inlets, marshes, and reefs owned by the state. The Texas GLO oversees consistency with the TCMP for Section 404 IPs, Section 10 permits, Section 9 permits, and EIS documents.

Texas Department of State Health Services

The mission of the TDSHS is to improve health and well-being in the State of Texas. They offer a variety of services ranging from substance abuse and various mental health programs to environmental programs relating to asbestos and lead. Specifically, the TDSHS may be involved in transportation projects when demolition/renovation is necessary within ROW. The mission of the Asbestos Program of TDSHS is to protect and promote the physical and environmental health of the people of Texas from asbestos. The TDSHS helps to ensure that all federal and state laws and regulations regarding asbestos are followed within the State of Texas.

2.3.3 Local Agencies and Responsibilities

North Central Texas Council of Governments (NCTCOG)

Regional transportation planning in North Central Texas is conducted by the NCTCOG, one of 25 federally-designated MPOs in the state charged with the duty of planning for transportation projects with the use of federal funds within its planning area. The NCTCOG serves a 16-county region of North Central Texas centered around the two urban areas of Dallas and Fort Worth. The NCTCOG includes the four-county service area for NTTA (Dallas, Tarrant, Denton, and Collin Counties).

The NCTCOG is comprised of a Transportation Department, an Executive Board, the Regional Transportation Council (RTC), and several specialized technical committees, including the Surface Transportation Technical Committee (STTC).

The RTC is the independent transportation policy body of the NCTGOG. The RTC is comprised of local elected or appointed officials representing cities and counties as well as transportation provider representatives. The RTC is responsible for overseeing the metropolitan transportation planning process. Primary activities include providing guidance regarding the development of multimodal transportation plans and programs; programming federal and state funds for the implementation of transportation improvements; selecting specific federally-funded projects and programs; assuring the coordination of services among transportation providers; and ensuring compliance with federal and state laws and regulations pertaining to metropolitan transportation and air quality planning.

The STTC consists of engineers, transportation provider representatives, and other technical staff from local entities. The STTC reviews, comments on, and prepares recommendations regarding surface transportation planning and the funding of transportation improvements in the DFW metropolitan area.

The NCTGOG works with state and local governments, the private sector, and the region's citizens to plan coordinated transportation systems designed to move goods and people affordably, efficiently, and safely. Areas served include the Dallas-Fort Worth-Arlington, Denton-Lewisville, and McKinney urbanized areas and surroundings. Major products produced by the NCTGOG include a long-range MTP, a shorter-term TIP, a Congestion Management Process (CMP), and a Unified Planning Work Program.

The NCTCOG provides planning-level assistance in support of tollway feasibility/viability assessments, corridor studies, and environmental studies. The NCTCOG provides travel

demand model runs and quantitative data from the DFW Regional Travel Model to aid in the analysis of MSAT and EJ impacts related to proposed NTTA projects.

Dallas Area Rapid Transit (DART)

DART is a regional transit agency authorized pursuant to Chapter 452 of the Texas Transportation Code. The DART service area consists of 13 member cities: Addison, Carrollton, Cockrell Hill, Dallas, Farmers Branch, Garland, Glenn Heights, Highland Park, Irving, Plano, Richardson, Rowlett, and University Park. DART assists NTTA in analyzing the operational feasibility of various transit modes in project corridors, in the development of public transportation related alternatives and Transportation System Management/Transportation Demand Management (TSM/TDM) strategies, and in analyzing impacts of railroad/highway grade separations.

Fort Worth Transportation Authority (the T)

The T is the operator of the bus system of the City of Fort Worth. The T also partners with DART through the Trinity Railway Express (TRE), which offers commuter rail service from downtown Fort Worth to DFW Airport and downtown Dallas. The bulk of the T operations involve 36 bus routes within the service area. Most routes service downtown Fort Worth, where the TRE has two train stations, an Intermodal Transportation Center, and the T&P Station. The T also operates a vanpool/carpool service and service for the mobility impaired.

2.3.4 Agreements

Due to the complexity of projects and the number of entities involved in the project development process, one or more interagency agreements may be necessary to execute a project. These agreements provide useful information regarding project funding commitments and contributions as well as commitments regarding responsibilities for environmental documentation, permitting, and mitigation requirements, and should be referenced during the environmental study process. Such agreements are often attached as supporting documentation or appendices to environmental documents to demonstrate project support and coordination. Executed project-specific agreements could include any of those listed below.

Section 129(a) Tolling Agreement

A Section 129(a) Tolling Agreement is an agreement between NTTA and the FHWA that must be executed prior to federal participation in a toll facility. If federal funds are used for construction of or improvements to a toll facility or the approach to a toll facility, or if a state plans to reconstruct and convert a free highway, bridge or tunnel to a toll facility, a toll agreement under 23 USC Section 129(a)(3) must be executed.

Under 23 USC 129(a)(3), federal participation is allowed in the following five types of toll activities:

- Initial construction (except on the Interstate System) of toll highways, bridges, and tunnels, including the approaches to these facilities;
- Reconstructing, resurfacing, restoring, and rehabilitating of any existing toll facility;
- Reconstruction or replacement of free bridges or tunnels and conversion to toll facilities;
- Reconstruction of a free federal-aid highway (except on the Interstate system) and conversion to a toll facility; and

- Preliminary studies to determine the feasibility of the above toll construction activities.

Interlocal Agreement (ILA)

An ILA is an agreement between NTTA and municipalities such as cities/counties that outlines the terms pertaining to the funding and construction of improvements that the local jurisdiction would like to incorporate into a proposed NTTA project. The ILA also outlines schedules and commitments.

Memorandum of Understanding

An agreement between NTTA and non-municipal agencies such as DART, railroads, and utility companies that provide for the use of easements and establish commitments with regard to overlapping projects.

Letter of Intent (LOI)

An LOI is an agreement between NTTA and cities/counties/agencies/etc. which is more general in nature and less formal than an ILA or MOU. LOIs generally precede an ILA or MOU and are drafted prior to any legal framework. These agreements are similar to city council resolutions and do not contain funding specifications.

Two-Party Agreement

A Two-Party Agreement is a detailed agreement between NTTA and TxDOT that outlines all the terms and conditions between the two parties for a contract involving monetary commitments and terms of funding, revenue, and schedule for a project.

Three-Party Agreement

A Three-Party Agreement is a detailed agreement between NTTA, TxDOT, and the FHWA that may include environmental document requirements, mitigation commitments, safety conditions, major projects requirements such as the need for a Project Management Plan and Financial Plan, etc.

Multi-Party Agreement

A Multi-Party Agreement is a special agreement between NTTA and multiple agencies such as TxDOT, a city, a county, a federal agency, etc. in which all participants have contractual commitments. These agreements are often specific to a unique construction element of a project such as the relocation of a historic structure or mitigation for impacts to a public park.

3.0 Project Documentation and Procedures

In order for NTTA to establish the proper documentation and procedures required for a project, the PDD must first determine if a project is planned to be developed as a local project or as a federal/state project. For purposes of this Manual, local projects are projects developed without TxDOT/FHWA oversight. Federal/state projects involve participation by the FHWA and/or TxDOT and include federal/state funding or require a federal authorization/approval from the FHWA (e.g. Letter of Authority, Interstate System Access Approval, etc.). Because the receipt of federal/state funds or the need for a federal authorization/approval constitutes a federal action which must be processed in accordance with NEPA, this determination greatly affects NTTA procedures, schedules, environmental documentation, and coordination requirements.

The initial decision in the NTTA environmental document determination process is based on the sources of funding to be utilized for a project (**Figure 3-1: Environmental Document Determination**). The following sections describe the funding options and how they affect the environmental review process.

3.1 Local Funding

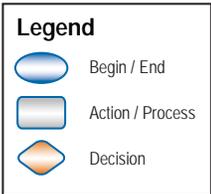
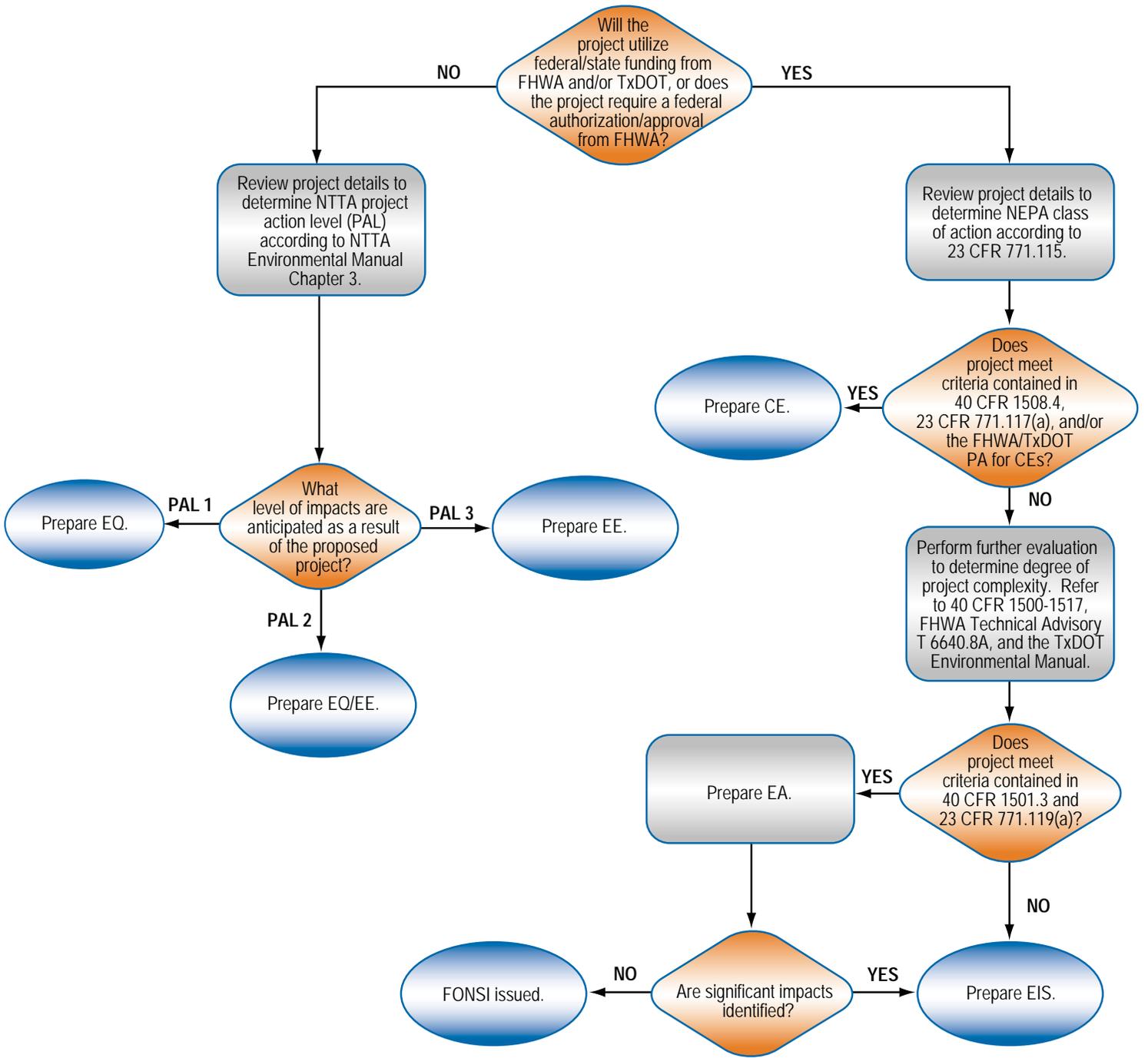
Locally-funded projects are developed with NTTA revenue bonds, toll revenues, and/or city and county funds. No federal/state funds are utilized for locally-funded projects. Except with regard to permitting and/or required federal approvals, locally-funded projects are not subject to NEPA. Nonetheless, environmental documentation is prepared for locally-funded projects as a matter of NTTA policy. The type of environmental documentation to be prepared is determined based on project action level (PAL).

3.1.1 Project Action Levels

NTTA projects, for which the NEPA process has not superseded the NTTA environmental review process, are categorized as one of three PALs. The PAL determines the level of coordination and documentation deemed necessary for assessing a project's environmental impacts. The PAL is determined by assessing the potential for environmental impacts, resource/regulatory agency coordination/requirements, public involvement, and controversy.

PAL 1 includes projects that involve the following:

- Minor design or alignment changes;
- Limited alternatives analysis;
- No proposed added capacity;
- Minor amounts of ROW acquisition and no displacements;
- Low potential for complex coordination with resource/regulatory agencies;
- No public involvement; and
- No known or anticipated controversy due to limited to no environmental impacts.



Environmental Document Determination

Figure 3-1

PAL 2 includes projects that involve and/or propose one or more of the following:

- Analysis of build alternatives on existing location;
- Added capacity;
- Minor amounts of ROW acquisition and potential displacements;
- Potential for complex coordination with multiple resource/regulatory agencies;
- Potential need for public involvement; and
- Minor potential for controversy due to environmental impacts.

PAL 3 includes projects that involve and/or propose any of following:

- Analysis of build alternatives on new location;
- Added capacity;
- Major amounts of ROW acquisition and displacements;
- Complex coordination with multiple resource/regulatory agencies;
- Public involvement; and
- Strong potential for controversy due to environmental impacts.

The PAL can change during the project development process. For example, although originally classified as PAL 2, a project may be elevated to PAL 3 or downgraded to PAL 1 during project development based on changes in the project scope, the results of impact assessments and analysis, or the outcome of coordination with resource/regulatory agencies.

3.1.2 Application of PALs to Document Type

3.1.2.1 PAL 1 (EQ)

PAL 1 projects require the completion of an NTTA Environmental Questionnaire (EQ), form **MAN-14-F1**. Completion of an EQ requires responding to a list of topical questions involving minimal data collection efforts and analysis effort. Supporting information must be compiled and submitted for NTTA project files to document decisions made. For an example of an EQ for an NTTA project, refer to attachment **MAN-14-A1**.

3.1.2.2 PAL 2 (EQ/EE)

PAL 2 projects require the initiation and/or completion of an EQ, but because one or several of the responses to questions posed in the EQ are answered as “yes,” additional impact assessment reports and/or technical memoranda may be required. The additional assessments may determine that either: no additional documentation other than a technical memorandum or report is required; or potential major impacts are anticipated and an Environmental Evaluation (EE) must be prepared.

3.1.2.3 PAL 3 (EE)

PAL 3 projects require a project initiation meeting to identify known and potentially major environmental impacts. An EE is required for PAL 3 projects and must be prepared in

accordance with the EE format (attachment **MAN-14-A2** and form **MAN-14-F2**). An EE is composed of the following six sections and attached appendices:

- Section 1: Project Description
- Section 2: Impact Assessment Summaries
- Section 3: Permits and Mitigation
- Section 4: Environmental Compliance
- Section 5: Agency Coordination
- Section 6: Project Agreements

For an example of an EE for an NTTA project, refer to attachment **MAN-14-A3**.

3.1.3 Verification and Re-assessment

As part of the environmental stewardship and coordination process, a Verification shall be conducted before each locally-funded project is constructed. A determination of whether a Re-assessment (update to the EQ or EE documentation) is necessary shall be made following the Verification.

The Verification and Re-assessment process serves to ensure compliance with all applicable federal/state/local laws prior to the advancement of the project to the next major phase. Verifications and Re-assessments provide the mechanisms whereby commitments made by NTTA in the EE or EQ are reviewed, confirmed, and their status reported. Any new commitments or laws which may have come into effect since the approval of the original EE or EQ shall be addressed. As a result, the EE or EQ shall be current with prevailing rules and regulations and any commitments resulting from the project development process or due to permit requirements.

A Verification shall be conducted for every locally-funded project to confirm that the approved EQ or EE conclusions remain valid and that there have not been changes to design or ROW that affect the previous environmental approval. The Corridor Manager/Project Manager shall coordinate with the PDD Lead Environmental Planner and/or Environmental Consultant to verify that:

- The EQ or EE approval was based upon the final design and remains valid;
- The EQ or EE approval remains valid although there may have been minor changes in design or ROW; or
- The EQ or EE approval does not remain valid and a Re-assessment is necessary due to design/ROW changes or other laws, rules, regulations, or permit requirements.

Verifications and Re-assessments shall not delay the construction letting schedule for a project and serve as a back-checking mechanism to ensure that NTTA is in compliance with the appropriate federal/state/local laws, rules, and regulations. Re-assessments shall be approved by the PDD.

Environmental compliance and monitoring activities shall commence after a project has been approved to verify that mitigation, permits, and commitments identified as part of the environmental review process are executed. As discussed in **Chapter 6** of this Manual, environmental compliance shall include tracking commitments on project EPIC sheet(s), field inspections, and annual audit reviews.

3.1.4 Local Approval Process

All locally-funded projects documented as EQs or EEs shall be reviewed and approved by the NTTA PDD or the Board of Directors, respectively. All coordination shall occur through the PDD. All PDD comments shall be provided and Environmental Consultant responses shall be prepared via form **ENV-02-F1**. Refer to **Figure 3-2: EQ and EE Approval Process - Local Funding** for a flow chart depicting the NTTA environmental review and approval process. The EQ shall be approved by the PDD, and publication or circulation of the final EQ is not required. Public involvement shall be conducted for projects requiring an EE. The results of the public involvement activities shall be summarized in the EE, and the EE shall be approved by the DPD, AEDPD, and NTTA Board. Once the EQ is approved by the PDD and the EE is approved by the NTTA Board, the documents may be made available to the public or agencies that request to review them. Copies of the approved documents shall be maintained by the Document Controls Manager in the PDD project files.

3.1.5 Local Projects with Federal/State Involvement

If a locally-funded project has a proposed connection to or interchange with an interstate highway or the state highway system, NEPA environmental and public involvement requirements shall be followed for the connection or interchange points. Coordination with TxDOT and the FHWA is required to define the "touchdown" points of the connection and to determine if an Interstate System Access Approval is required from the FHWA.

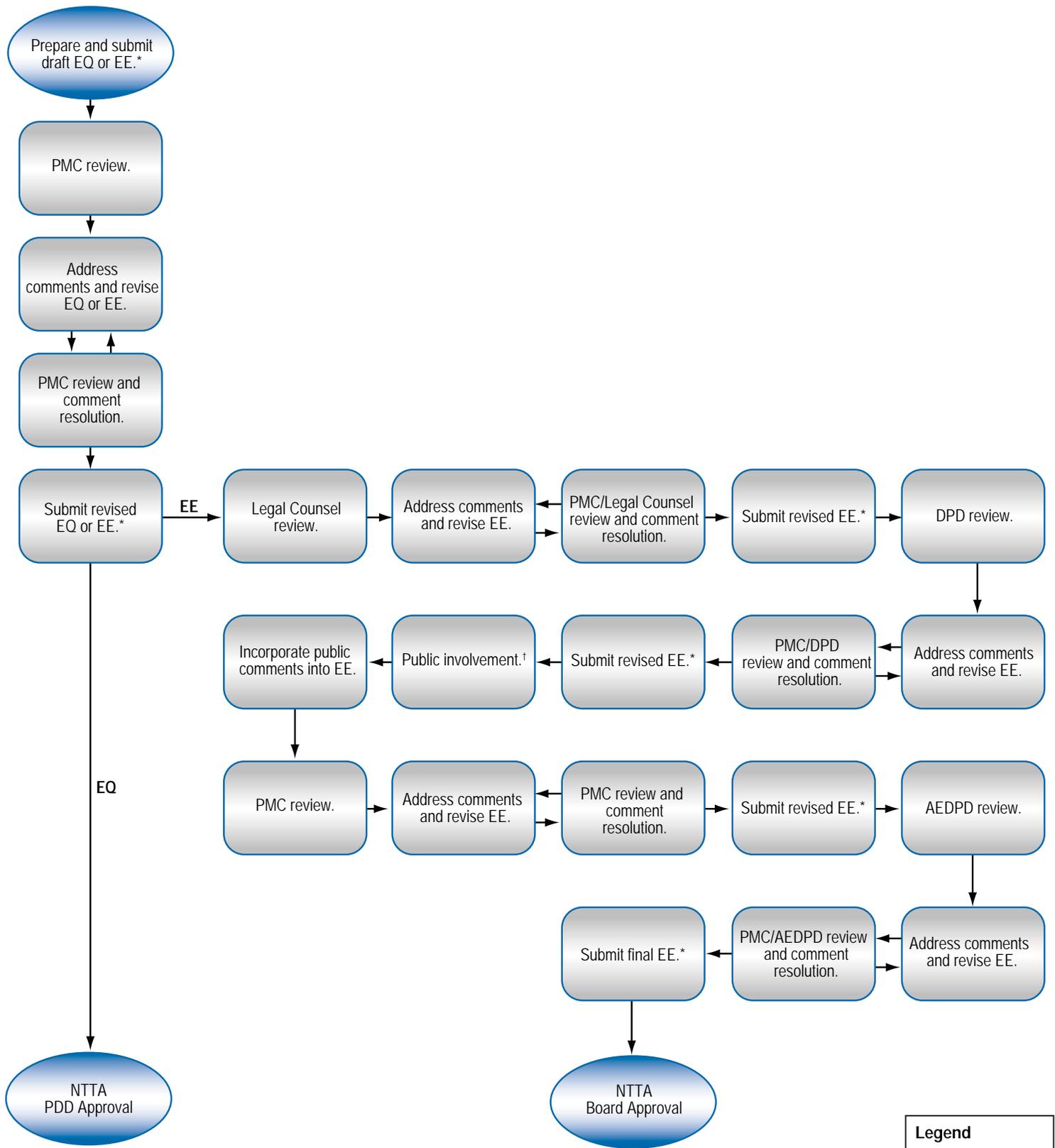
It is important to note that portions of local projects can also become federalized if a federal permit is needed for the project. For example, if a locally-funded project impacts waters of the U.S. and requires a Section 404 permit, the jurisdictional area covered under the permit would be federalized. The federal permitting agency (the USACE in this example) is responsible for complying with NEPA prior to issuing the federal permit. Typically, the federal agency will rely upon and use information from the NTTA environmental document to satisfy the requirements of NEPA.

In addition, if the construction of a local project is proposed to affect a federal project (e.g. the USACE Trinity River Flood Control Project) in some way, it may require a federal review or approval by the lead agency over the federal project.

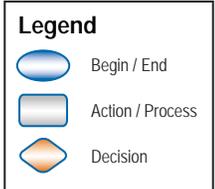
For local projects with federal involvement, the Corridor Manager/Project Manager shall coordinate with the Environmental Manager to develop the documentation necessary to initiate coordination with the appropriate federal/state agencies as early as possible in the project development process to determine the appropriate environmental documentation packaging options for the corridor and the required federal/state approvals.

3.2 Federal/State Funding

For the purposes of this Manual, "federal/state funded" applies to the utilization of federal and/or state funds for a project with the assumption that TxDOT state funds are or could be linked to FHWA federal funds. Therefore, NTTA follows the NEPA environmental review process for any projects utilizing federal and/or state funding.



* All submittals shall follow the NTTA Environmental Documentation Review and Submittal Process (QMS ENV-02).
 † All public involvement shall follow the processes and procedures in the NTTA Project and Corridor Communications Manual.



EQ & EE Approval Process - Local Funding

Figure 3-2

For projects that receive federal/state funding or require a federal authorization/approval from the FHWA, NTTA shall coordinate with the appropriate TxDOT District and the FHWA according to NTTA Quality Management System (QMS) procedure **ENV-02** and attachment **MAN-14-A5**. Because the FHWA and TxDOT have developed extensive guidance on environmental documentation that incorporates NEPA as well as the other relevant federal/state resource and regulatory agency requirements, their guidance shall supersede NTTA local project documentation requirements.

The following sections provide general guidance for determining the classes of action and level of documentation for federal/state funded projects. In addition to describing the classes of actions, documentation requirements for environmental clearance are also detailed below. These requirements are consistent with TxDOT and FHWA guidance. Attachment **MAN-14-A4** provides a preferred table of contents and list of tables for NTTA projects that require federal/state environmental documents.

3.2.1 Classes of Actions

NTTA projects vary in type, size and complexity, and potential to affect the environment. The project effects can vary from very minor to significant impacts subject to NEPA. When NTTA utilizes federal/state funds, there are three classes of actions which prescribe the level of documentation required in the NEPA process. Prior to initiating the preparation of any NEPA documentation, coordination with TxDOT/FHWA should be initiated, and an environmental classification letter specifying the type of NEPA documentation to be completed for the project should be approved by TxDOT/FHWA. Classes of actions are defined in 23 CFR 771.115 and are briefly summarized below.

The following classes and document types are often referred to as NEPA documents. In further discussions in **Chapter 4**, these documents are simply referred to as environmental documents.

3.2.1.1 Class I (EIS)

Class I actions that significantly affect the environment as interpreted under NEPA and 40 CFR 1508.27 require an EIS. The following are examples of actions that normally require an EIS:

- A new controlled access facility;
- A highway project of four or more lanes on a new location;
- New construction or extension of fixed rail transit facilities (e.g., rapid rail, light rail, commuter rail, automated guideway transit); and
- New construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility.

The NTTA shall coordinate with TxDOT and the FHWA when initiating the EIS process. The TxDOT ENV *Environmental Manual* shall be reviewed to obtain detailed requirements of EISs, the process for preparing them, and the content of the document at various stages of preparation. The process is generally as follows:

- A project initiation letter from the project sponsor notifies the FHWA of the proposed project plans;

- A Notice of Intent (NOI) announces the decision to prepare a DEIS and must be published in both the Federal and State Registers as approved by the FHWA;
- Scoping is conducted to determine the range of alternatives, significant impacts, and issues to be addressed in the DEIS;
- The approved DEIS is circulated;
- A Final Environmental Impact Statement (FEIS) is developed to document the preferred alternative and its significant impacts on the environment;
- A Record of Decision (ROD) explaining the basis for a project decision is developed; and
- The ROD (final clearance) is issued.

SAFETEA-LU added additional environmental procedures for transportation projects developed as EISs. All EISs for which the NOI was published in the *Federal Register* after August 10, 2005, must follow the SAFETEA-LU requirements. Documents such as, the FHWA *SAFETEA-LU Environmental Review Process Final Guidance* and the *Environmental Review Process (SAFETEA-LU 6002) Checklist* shall be reviewed with the PDD Environmental Manager to ensure that all aspects of the environmental process are applied as per SAFETEA-LU. Although this guidance outlines additional procedures, it does not supersede any previous guidance or regulations promulgated under NEPA, in particular, CEQ regulations (40 CFR 1500-1508).

3.2.1.2 Class II (CE)

Actions that do not individually or cumulatively have a significant environmental effect are excluded from the requirement to prepare an Environmental Assessment (EA) or EIS. A specific list of Categorical Exclusions (CEs) normally not requiring NEPA documentation is set forth in 23 CFR 771.117(c). When appropriately documented, additional projects may also qualify as CEs pursuant to 23 CFR 771.117(d).

The NTTA shall coordinate with TxDOT and the FHWA when a federal/state funded project meets the CE criteria. The TxDOT ENV *Environmental Manual* shall be reviewed to obtain specific requirements and typical CE documentation content. TxDOT ENV has also prepared various *Standards of Uniformity* (SOU) that may apply and shall be reviewed as well as the procedures presented in **Chapter 4** of this Manual.

3.2.1.3 Class III (EA)

Actions in which the significance of the environmental impact (40 CFR 1508.27) is not clearly established that are not Class I or II are Class III. All actions in this class require the preparation of an EA to determine the appropriate environmental document required (23 CFR 771.119).

The NTTA shall coordinate with TxDOT and the FHWA when an EA shall be prepared for a federal/state funded project. The TxDOT ENV *Environmental Manual* shall be reviewed to obtain specific requirements and typical EA documentation content. Various TxDOT ENV SOUs may apply and shall be reviewed as well as the procedures in **Chapter 4** of this Manual. The EA process will conclude with a Finding of No Significant Impact (FONSI) or with the initiation of an EIS. A FONSI shall typically be granted once public involvement requirements are met and final endorsement by TxDOT and the FHWA is received. A FONSI is not issued at the conclusion of an EA when it is determined that significant environmental impacts shall occur as

a result of the project. In this case, an EIS shall be prepared (**Figure 3-1**). If it becomes apparent during the development of an EA that an EIS is required, the project shall proceed under the EIS requirements in coordination with TxDOT and the FHWA.

3.2.2 Documentation Requirements Following Environmental Clearance

Once projects have been approved by TxDOT/FHWA, continuous activity to advance the project (ROW acquisition, final design, etc.) shall be demonstrated. Given that many projects require extensive time to develop, there may be a lag time between environmental clearance and project construction letting. If ROW acquisition, utility adjustments, PS&E, and other routine project activities have occurred, then project development is considered continuous. If subsections of a project have been let for construction, this is also considered to be continuous activity. If continuous activity has not taken place or if there have been changes in design, land use, or ROW, a Re-evaluation may be required.

All three classes of actions listed above may require continuous activity or Re-evaluation documentation and/or approval by TxDOT/FHWA. If major changes occur after a ROD has been issued, a Supplemental EIS (SEIS) may be required. The following sections summarize the guidance and requirements issued by TxDOT. Refer to 23 CFR 771.129, 43 TAC 2.43(e)(6), and the FHWA Technical Advisory T 6640.8A for additional guidance.

If the project has not let to construction and continuous activity cannot be demonstrated within 3 years from environmental clearance for an NTTA project that involves federal/state participation, consultation with the PDD Environmental Manager and TxDOT/FHWA is necessary to determine the level of agency coordination and documentation required.

3.2.2.1 Letter of Continuous Activity

In accordance with the TxDOT ENV *Environmental Manual*, NTTA shall consult with TxDOT and the FHWA before requesting approval to establish whether an approved environmental document remains valid. This consultation takes the form of a memo or separate document. If continuous activity has taken place on a project and there are no changes in design, land use, or ROW, and no new regulatory requirements are in effect which would require a Re-evaluation or SEIS, NTTA shall notify TxDOT and the FHWA that activity has been continuous. There is no FHWA approval of the action.

3.2.2.2 Re-evaluation and Verification

In accordance with the TxDOT ENV *Environmental Manual*, if three years have passed since the last approval and/or continuous activity has not taken place on a project, a Re-evaluation is required. If there are no changes in design, land use, or ROW, a letter to TxDOT and the FHWA is appropriate. If there are new regulatory changes or changes in design, land use, or ROW, a detailed Re-evaluation of the original document may be required. Guidance from the TxDOT ENV *Environmental Manual* is summarized below for re-evaluating CE, EA, and EIS documents.

CE Re-evaluations are not usually necessary because CE projects are typically constructed and completed within 3 years of CE approval. However, if there are changes in design, ROW, land use, regulatory requirements, or environmental issues after 3 years, it is necessary to prepare a Re-evaluation document.

EAs are typically considered valid for a period of 3 years following the date of FONSI approval. If the project has not advanced (ROW, detailed design work, etc.) within 3 years of the FONSI, documentation is prepared to demonstrate that continuous activity has or has not taken place on a project since environmental clearance. Any changes to design, ROW requirements, or environmental effects are evaluated. The level of documentation required shall be contingent upon the magnitude and complexity of the changes. After any additional resource agency coordination and/or public involvement that may be required, the Re-evaluation is approved by TxDOT ENV and/or the FHWA.

FEIS Re-evaluations are conducted to identify and evaluate any changes that may have occurred in design, ROW requirements, or quantifiable environmental effects since the previous approval.

Re-evaluations of NEPA documents can also be required in less than 3 years from approval if there have been significant changes to the project area, design, or regulatory requirements. If no changes in design, ROW requirements, land use, etc., have occurred since the time the CE, EA, or FEIS was approved, a notice of continuous activity shall be prepared.

As done for locally-funded projects, a Verification shall be conducted by NTTA before each federal/state funded project is constructed. The Verification process serves to ensure compliance with all applicable federal/state/local laws prior to the advancement of the project to the next major phase. A Verification ensures that commitments made by NTTA in the NEPA document are reviewed, confirmed, and their status is reported. Any new commitments or laws which may have come into effect since the most recent environmental approval shall be addressed. As a result, the NEPA document shall be current with prevailing rules and regulations and any commitments resulting from the project development process or due to permit requirements.

A Verification shall be conducted for every federal/state funded project to confirm that the approved NEPA document conclusions remain valid and that there have not been changes to design or ROW that affect the previous decision. The Corridor Manager/Project Manager shall coordinate with the PDD Lead Environmental Planner and/or Environmental Consultant to verify that:

- The NEPA document approval was based upon the final design and the previous approval remains valid;
- The NEPA document approval remains valid although there may have been minor design or ROW changes; or
- The NEPA document approval does not remain valid and a Re-evaluation is necessary due to design/ROW changes or other laws, rules, regulations or permit requirements.

A Re-evaluation can also be initiated by the PDD after a Verification determines that a previous approval is no longer valid, if more than 3 years have passed since the NEPA approval, or if there have been major design or ROW changes. A format for the Re-evaluation shall be determined by PDD Environmental Staff and coordinated with TxDOT/FHWA. Environmental approval for Re-evaluations must be issued by TxDOT/FHWA.

3.2.2.3 Supplemental EIS

In accordance with the TxDOT ENV *Environmental Manual*, an SEIS may be necessary when major changes occur in an EIS class project. These changes occur following the last approval (DEIS, FEIS, ROD). Although an NOI is required for an SEIS, an SEIS normally does not require reinitiating the overall environmental process. Instead, the SEIS is for the last approval. If a ROD had been granted, only the FEIS would need to be supplemented. If the changes are of such magnitude to require a re-assessment of the entire action, or more than a limited portion of the overall action, TxDOT ENV and the FHWA shall suspend any activities that would have adverse environmental impacts or limit the choice of alternatives until the SEIS is complete.

An SEIS may be needed in the following instances:

- If new alternatives are introduced;
- If changes are made to the design or scope of the project;
- If major changes to the previously documented environmental consequences may require supplemental documentation to determine whether the EIS conclusions are valid; or
- If TxDOT ENV or the FHWA determines that new information or circumstances result in significant environmental impacts not evaluated in the EIS.

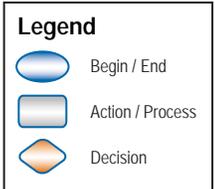
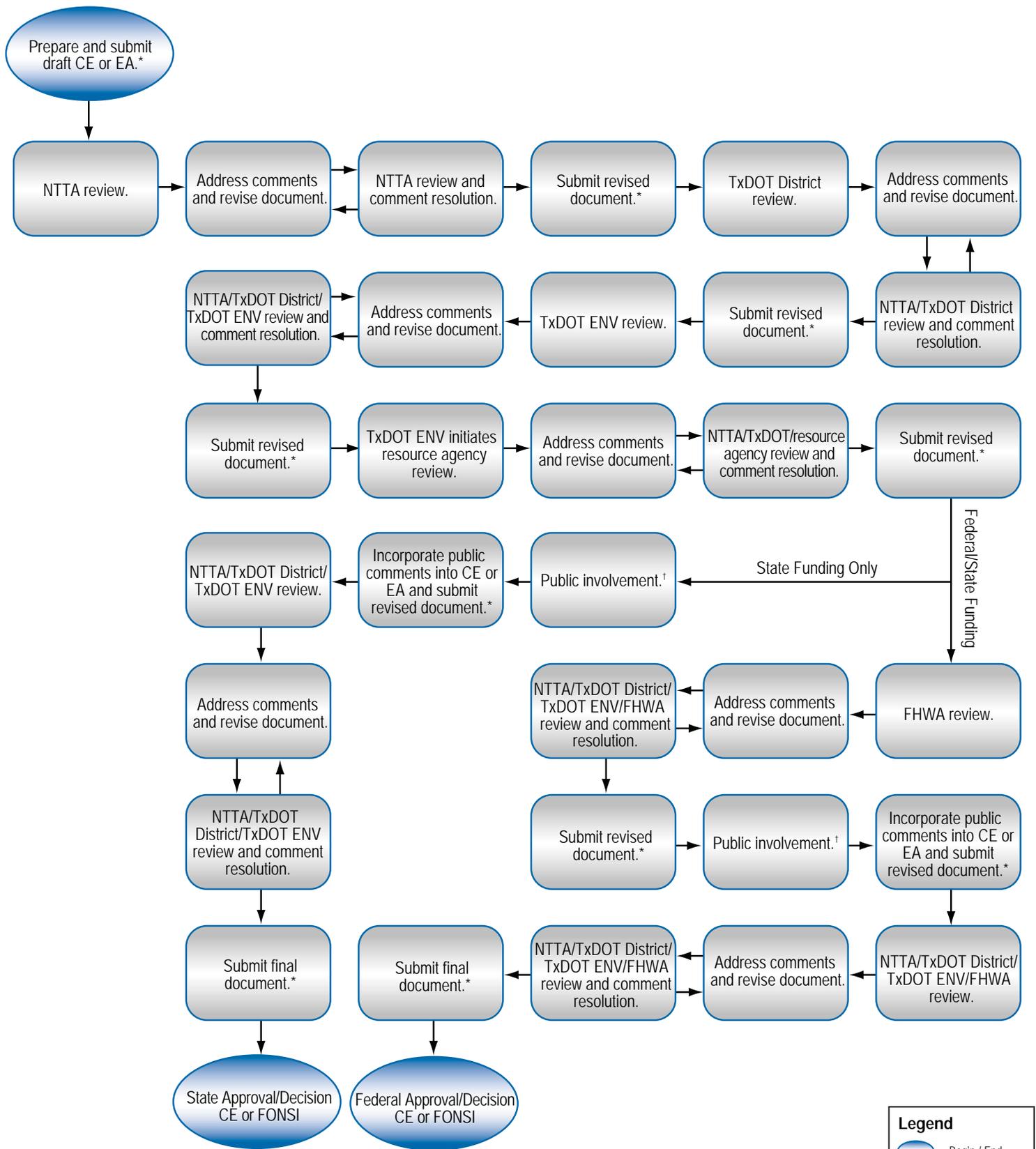
3.2.3 Federal/State Approval Process

All federal/state funded projects documented as described above shall be reviewed and processed through the PDD. Depending on the funding, TxDOT ENV or the FHWA shall issue the final document approval. The Environmental Consultant shall document comments and responses generated during the review/approval process on form **ENV-02-F1**.

Refer to **Figure 3-3: CE and EA Approval Process - Federal/State Funding** for a flow chart depicting the CE and EA approval process. A federal/state signed CE or FONSI constitutes environmental clearance for the project under NEPA, which allows NTTA to proceed with ROW acquisition and final design of the project.

Refer to **Figures 3-4.1 to 3-4.4: EIS Approval Process - Federal/State Funding** for a flow chart depicting the EIS approval process. The signed ROD constitutes environmental clearance for the project under NEPA.

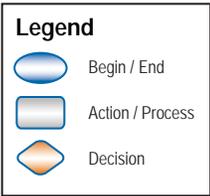
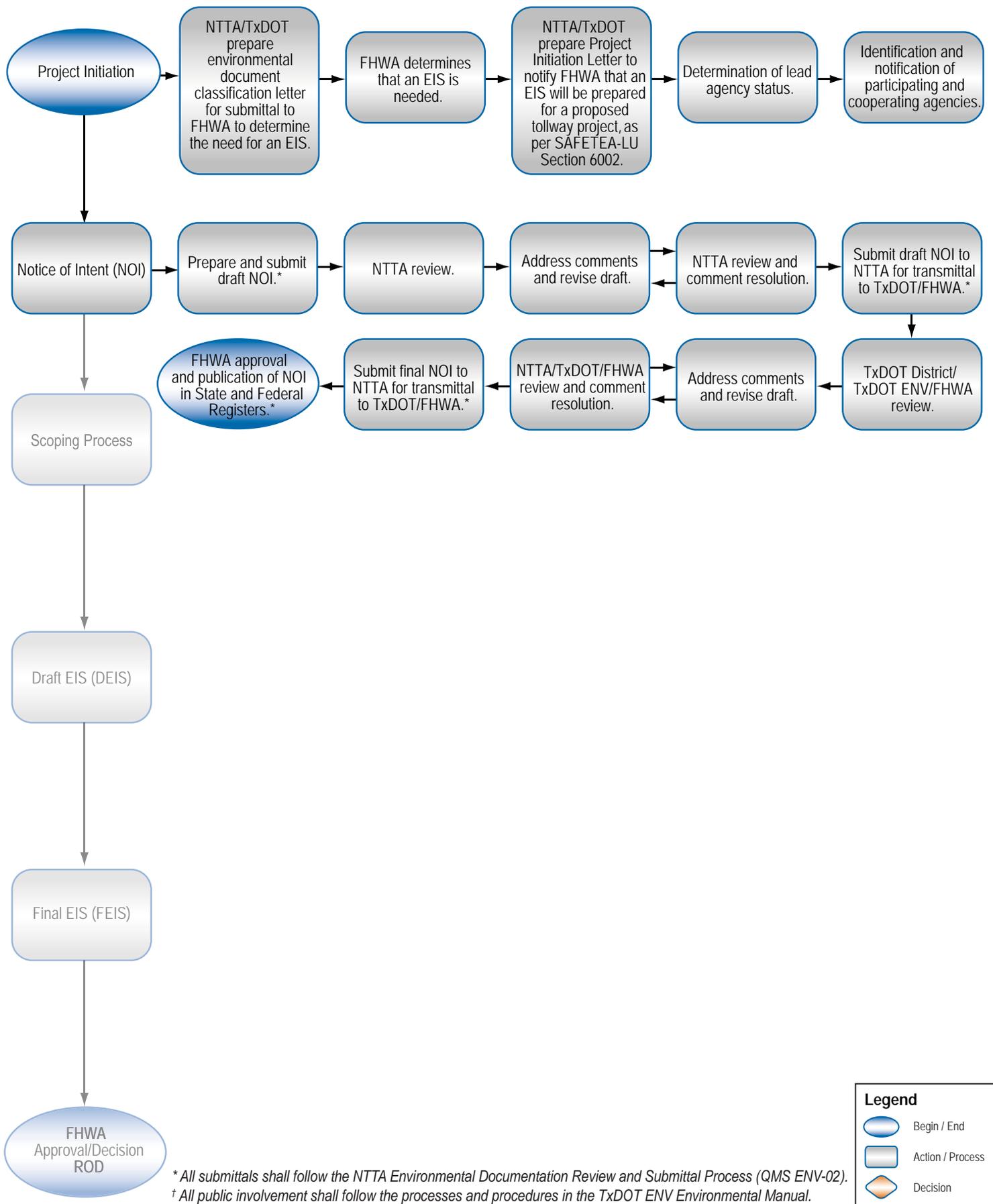
The Environmental Consultant shall determine the procedures for processing and coordinating continuous activity, Re-evaluation, and SEIS documents in consultation with PDD Environmental Staff on a project specific basis.



* All submittals shall follow the NTTA Environmental Documentation Review and Submittal Process (QMS ENV-02).
 † All public involvement shall follow the processes and procedures in the TxDOT ENV Environmental Manual.

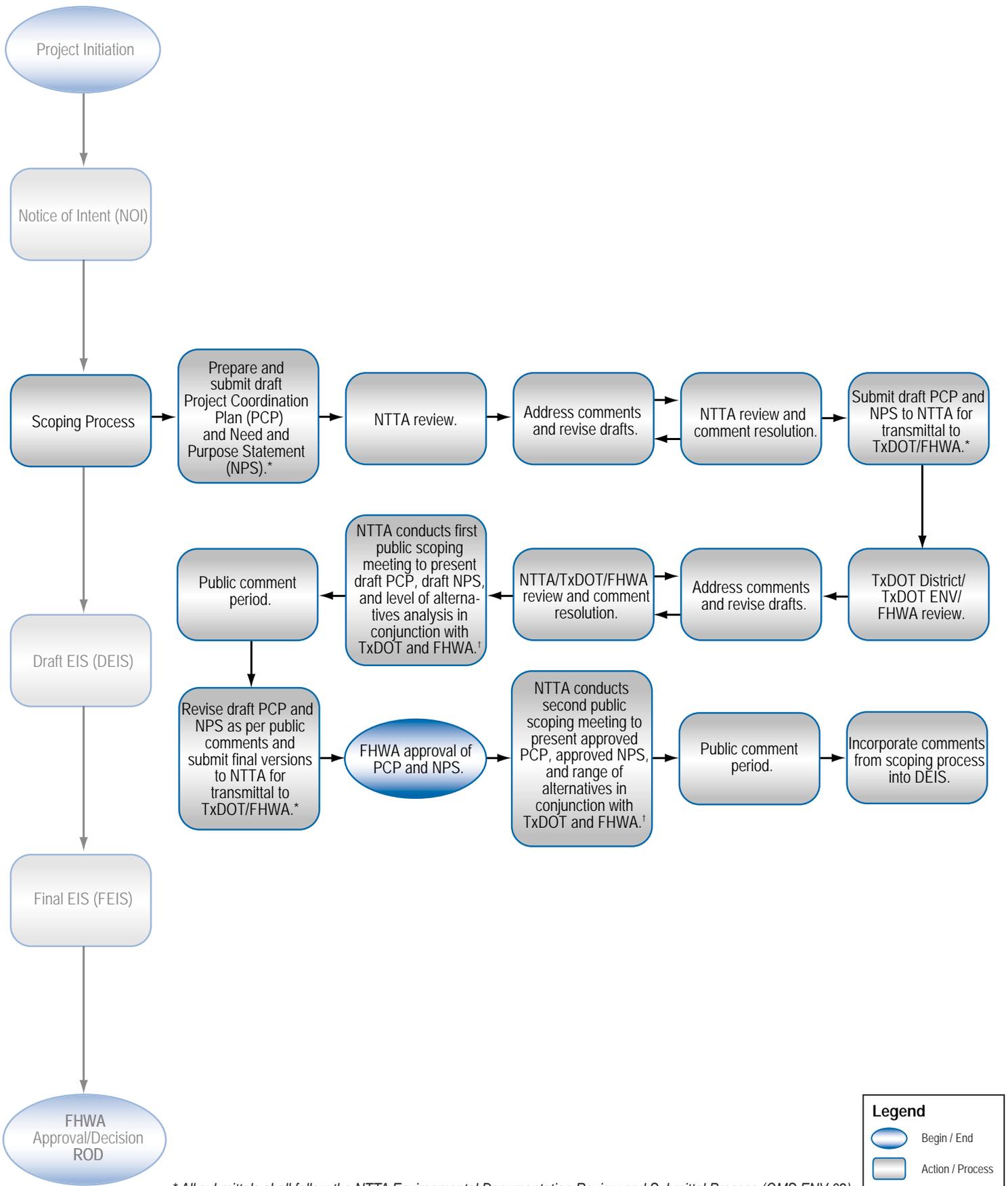
CE and EA Approval Process - Federal/State Funding

Figure 3-3

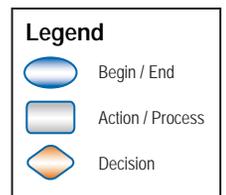


EIS Approval Process - Federal/State Funding

Figure 3-4.1

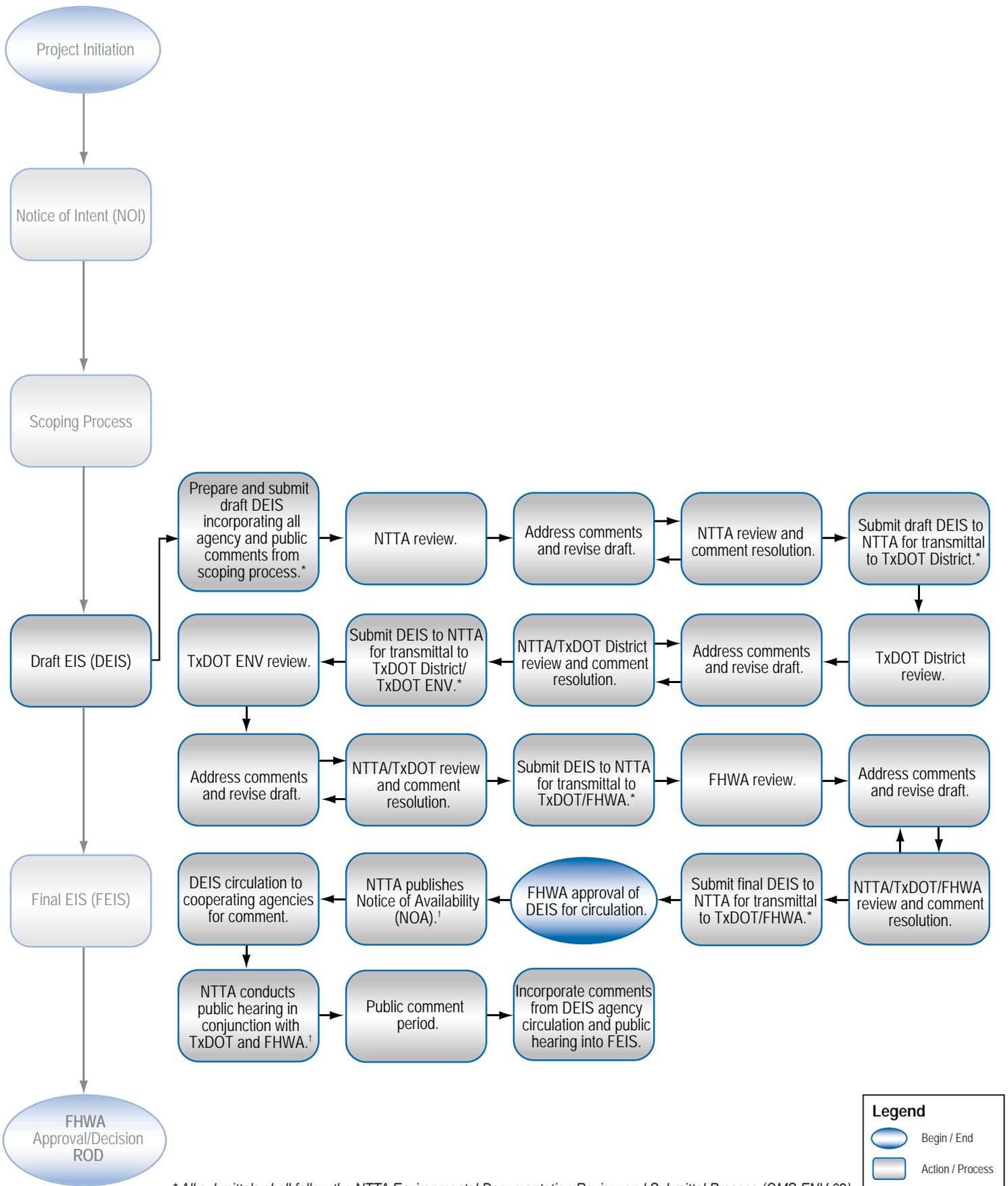


* All submittals shall follow the NTTA Environmental Documentation Review and Submittal Process (QMS ENV-02).
 † All public involvement shall follow the processes and procedures in the TxDOT ENV Environmental Manual.

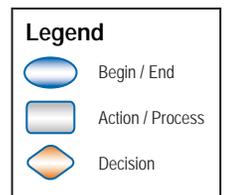


EIS Approval Process - Federal/State Funding

Figure 3-4.2

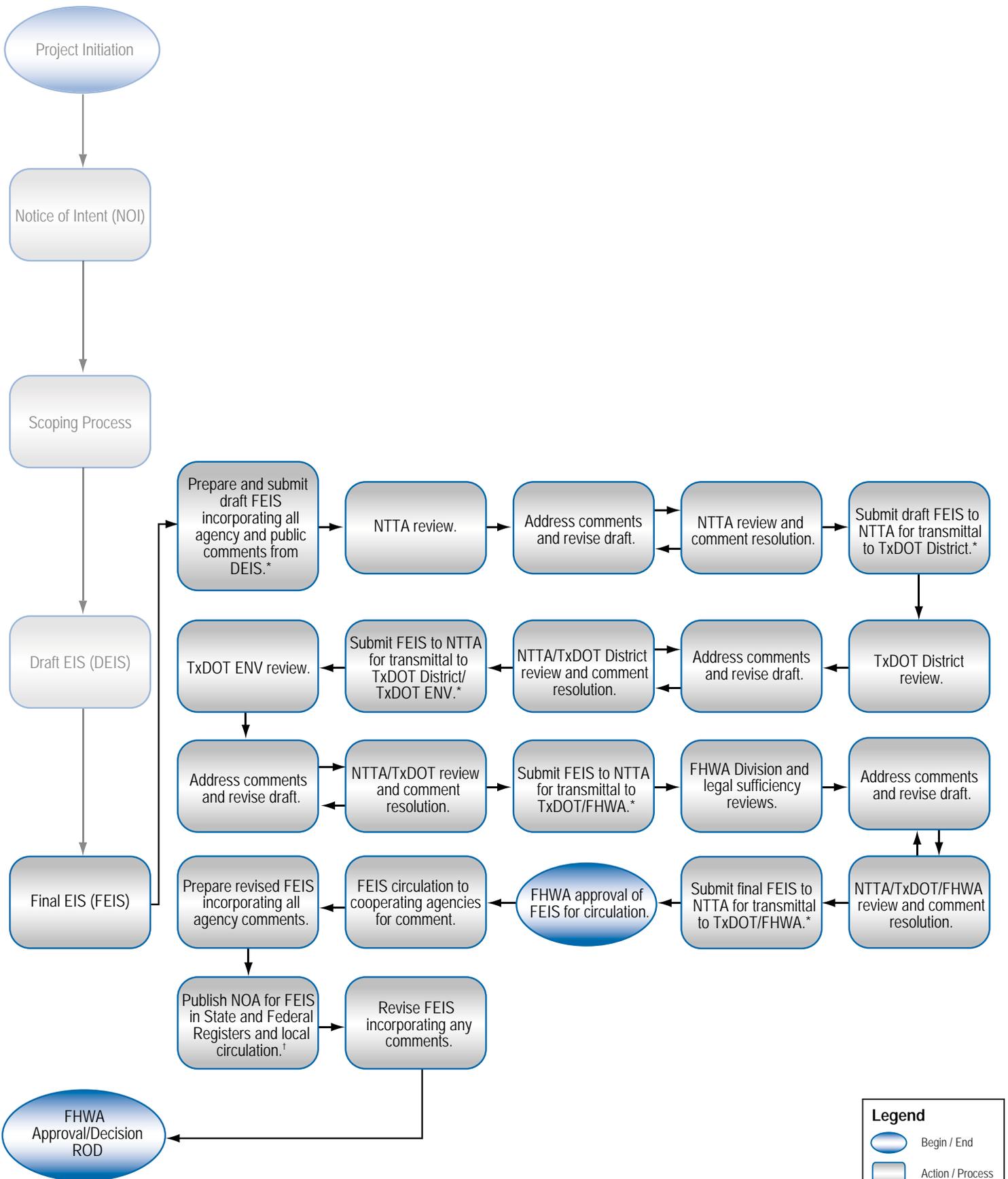


* All submittals shall follow the NTTA Environmental Documentation Review and Submittal Process (QMS ENV-02).
 † All public involvement shall follow the processes and procedures in the TxDOT ENV Environmental Manual.

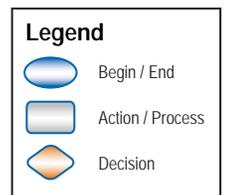


EIS Approval Process - Federal/State Funding

Figure 3-4.3



* All submittals shall follow the NTTA Environmental Documentation Review and Submittal Process (QMS ENV-02).
 † All public involvement shall follow the processes and procedures in the TxDOT ENV Environmental Manual.



EIS Approval Process - Federal/State Funding

Figure 3-4.4

3.2.3.1 Section 139(l) Notice

After a federal decision has been made, NTTA shall decide if a Section 139(l) notice is needed. Section 6002(a) of SAFETEA-LU includes a provision limiting the time period for filing claims that challenge permits, licenses, or approvals issued by federal agencies for highway or public transportation capital projects. The law, codified as 23 USC 139(l), established a 180-day statute of limitations for claims on final federal agency actions. The 180-day limitation period applies if a notice is published in the *Federal Register* announcing that the federal agency has taken action that is final under the federal law pursuant to which the action was taken. If no notice is published, the period for filing claims is not shortened from what is provided by other parts of federal law. If other federal laws do not specify a statute of limitations, then a 6-year claims period applies. Section 139(l) is intended to expedite the resolution of issues affecting transportation projects and shall be considered for each NEPA project that NTTA sponsors.

3.2.4 Document Submittal Protocol

NTTA projects utilizing federal/state funds shall be under the oversight of TxDOT; therefore, the local TxDOT District, TxDOT ENV, and the FHWA shall review and approve NTTA environmental documents for these projects. Refer to TxDOT's Local Government Project Procedures (LGPP) Module 5, *The Environmental Process for Transportation Projects Developed by Local Governments Under TxDOT Oversight* for the roles and responsibilities of each reviewing agency.

As outlined in NTTA QMS procedure **ENV-02**, all draft and final environmental deliverables prepared by the Environmental Consultant shall be submitted to NTTA for review and processing, specifically PDD Environmental Staff. Once comment resolution is achieved, the PDD shall forward environmental submittals to the local TxDOT District for a minimum 30-day review period.

The Environmental Consultant shall address TxDOT District comments and forward comment resolution materials to PDD Environmental Staff for review and approval. The PDD shall then forward environmental submittals to the local TxDOT District for review. Once comment resolution is achieved, the local TxDOT District shall forward submittals to TxDOT ENV for a minimum 30-day review period.

The Environmental Consultant shall address TxDOT ENV comments and forward comment resolution materials to PDD Environmental Staff for review and approval. The PDD shall then forward the environmental submittals back to the local TxDOT District, who will then forward submittals to TxDOT ENV for review. Once comment resolution is achieved, TxDOT ENV shall, if necessary, forward environmental documentation to the FHWA for review and approval.

Federal/state review comments shall be transmitted to NTTA through the TxDOT District. The approval process may require subsequent re-submittals to the PDD in order to meet TxDOT ENV and FHWA requirements. Comment resolution shall be achieved between the Environmental Consultant and NTTA, TxDOT, and the FHWA for all draft documents prior to TxDOT/FHWA approving or clearing documents for further processing and before a federal/state funded project shall proceed to construction. All federal/state agency comments and NTTA Environmental Consultants' responses to comments shall be thoroughly documented on form **ENV-02-F1** and attached with any re-submittals of draft documents until the required federal/state decision is obtained. Refer to attachment **MAN-14-A5** for further clarification

regarding the submittal and review processes agreed to by NTTA, TxDOT, and the FHWA for deliverables during project development.

3.3 Environmental Permits, Issues, and Commitments

EPIC identified throughout project development will range in complexity and required actions. EPIC shall be tracked and documented throughout the environmental review process and incorporated into final design via EPIC sheets. EPIC sheet(s) shall identify the needed permits and describe any issues or commitments that may have been agreed to during project development. These plan sheets are generated by the Corridor Manager in conjunction with the Environmental Consultant and the Lead Environmental Planner near the time final design plans are complete. Typically, once the DSE submits plans at the 90% milestone review, the Environmental Consultant, the Lead Environmental Planner, and the ECM shall review the approved environmental document and compare the impacts described to the actual design plans. The EPIC sheet(s) shall then be placed in the final set of design plans.

Examples of common EPIC sheet(s) contents include:

- USACE Section 404 permit requirements;
- TPDES storm water permit requirements;
- Commitments regarding encounters with any threatened or endangered species identified to potentially occur in the project area;
- Commitments to survey for active migratory bird nests prior to construction;
- Commitments regarding landscaping and vegetation resources;
- Commitments to avoid or mitigate for impacts to cultural resources;
- Commitments regarding the discovery of unknown cultural resources during construction;
- Commitments to avoid, remove, test, or remediate hazardous materials;
- Commitments to construct noise walls during a certain phase of construction;
- Commitments to avoid or mitigate for impacts to public lands, including Section 4(f) properties; and
- Documented commitments made to adjacent property owners or municipalities.

The ECM shall review project-specific EPIC with potential Contractors during project pre-construction meetings so that the Contractors shall be aware of the EPIC and can take the needed/appropriate actions. The Corridor Manager and selected Contractor, with the ECM's oversight, shall ensure the EPIC are carried through and met during construction.

3.4 Public Involvement

Most projects developed by NTTA shall have some level of public involvement to inform and seek input from stakeholders, affected property owners, interested citizens, resource agencies, and local and elected officials. The level of public involvement may comprise various formats such as project Web sites, newsletters, email updates, letters, phone calls, workshops, public meetings, and public hearings. Public involvement is an integral part of the project development process at all stages. All public involvement and outreach efforts that occur in tandem with the

environmental documentation process shall follow the processes and procedures in the NTTA *Project and Corridor Communications Manual* for locally-funded projects and the TxDOT *ENV Environmental Manual* for federal/state funded projects. All NTTA projects that require an EQ, EE, or NEPA document shall also describe any project-specific public involvement efforts that were conducted.

3.5 Project File and Administrative Record

A project file includes the files maintained by the project team during the environmental review process. An accurate and up-to-date project file shall be developed for each project. Maintaining an accurate and complete project file allows the Environmental Consultant to locate important documents quickly and efficiently. The Environmental Consultant shall coordinate with the Environmental Manager to determine a written filing protocol to designate the types of documents that should be filed and the information to be included. Each project shall also establish a project file email address to capture project-related emails.

An administrative record includes the documents that are actually submitted by an agency to the court in a NEPA lawsuit. Administrative records shall be created and maintained by the Environmental Consultant and PDD Document Controls Manager for NTTA's projects if and when a lawsuit is filed challenging a decision made during the NEPA process, or if a project may be controversial and has the potential to result in litigation. The decision to create an administrative record shall be made in coordination with Legal Counsel, the Environmental Consultant, the PDD Environmental Manager, the Interagency/Planning Liaison, and the Corridor Manager/Project Manager. The Corridor Manager/Project Manager, DSE, Environmental Consultant, and PDD Environmental Staff shall be responsible for providing the administrative record documents as outlined in NTTA QMS procedure **DM-03**.

3.6 Planning Process Coordination

The NTTA coordinates with the appropriate MPO to ensure that proposed projects are considered and included in the required TIP and MTP for the NCTCOG and/or Texoma Council of Governments (TCOG). The project must be consistent with the MTP and listed in the TIP, including total project costs escalated to the year of completion (year of expenditure) and the open-to-traffic date. Total project costs include preliminary engineering, environmental analysis, mitigation, ROW, utilities, PS&E, construction and construction engineering, contingencies, and indirect costs. In addition to costs, the MTP/TIP should include project design concept, scope, type of work, and implementation timeframes to ensure that federal requirements of linking the planning process and environmental review are achieved (23 CFR 450, Appendix A – Linking the Transportation Planning and NEPA Processes). If the proposed project and MTP/TIP are not consistent, the environmental documents and/or the MTP/TIP must be updated and a new conformity determination may be required. Lastly, NTTA projects are coordinated with TxDOT through the appropriate MPO for inclusion into the STIP. Updates to the STIP occur every 3 months and usually take 6 to 9 months to be processed and approved. The TIP is approved by the MPO, and the STIP is approved by the FHWA and the FTA.

Changes to the MTP typically occur every 2 to 3 years and must be approved by the MPO Policy Board. The MTP must be updated at least every 4 years in nonattainment areas. For MTPs in nonattainment areas, the MTP must conform to the SIP and conformity is determined by the MPO Policy Board, the FHWA, and the FTA. For a project in a metropolitan area, the FHWA cannot take action to approve a CE or issue a ROD or FONSI unless the project has

been included in, and is consistent with, the MTP. Additionally, projects should be consistent with the TIP/STIP; however, FHWA guidance does not require that the entire project be included in the financially constrained TIP/STIP. It is anticipated that a subsequent phase (beyond NEPA approval) of the project seeking final environmental action shall be included in the TIP/STIP. In those instances where no subsequent phase (e.g., preliminary engineering, ROW acquisition, or construction) of the project, or portion of the project (i.e., staged construction) is anticipated to occur within the timeframe of the TIP/STIP, FHWA guidance calls for the project to be described in the TIP/STIP for informational purposes.

Addressing transportation planning issues as early as possible in the environmental review process shall facilitate the reduction of potential project delays when final NEPA action is needed. In order to ensure that a project is included in the MTP/TIP/STIP, cooperation and coordination among NTTA, TxDOT, the MPO, and the FHWA shall be ongoing and is essential during project development to achieve success.

Changes regarding the decision to toll a facility may also require additional environmental document revisions, review, and public involvement. All projects, including toll facilities, should be considered early in the transportation planning process. The MTP, TIP, and STIP must also match the project resulting from the environmental and public involvement process for TxDOT/FHWA approval. If the recommended project does not match the MTP, TIP, and STIP, these documents will need to be updated and a new conformity determination would need to be made. The following scenarios provide additional guidance based on when tolling is considered during the project development process:

- **Known Toll Road** - If it is predetermined that a facility will be tolled, the project need and purpose should address only toll alternatives if the project is included in the MTP as a toll facility. The environmental and public involvement processes shall be conducted based on the project being a toll road.
- **Non-Toll or Toll Road Possible** - When it is not known if a facility will be a non-toll road or a toll road, both options shall be studied in the environmental process. The need and purpose should support both types of facilities and both non-toll and toll alternatives shall be considered. The environmental and public involvement processes shall examine both types of facilities and evaluate the benefits and limitations of the alternatives. If the approval is based on one scenario and it is subsequently determined to implement the other scenario, then an amended approval could more easily be provided since the environmental document included both options. However, the Long Range Transportation Plan (LRTP), TIP, and STIP would need to be revised before the amended approval could be issued.
- **Change from Non-Toll to a Toll Road after Environmental Approval, but Prior to Construction** - In this situation, additional environmental documentation and public involvement would be needed, with appropriate revisions to the LRTP, TIP, and STIP, including a new conformity determination, as applicable, before the environmental approval.
- **Change from Non-Toll to Toll Road during Construction** - Additional environmental documentation and public involvement would be needed along with related revisions to the LRTP, TIP, and STIP. These activities and related approvals would need to be finalized prior to the completion of construction of the toll road in order for conversion rules not to apply.
- **Change from Operating Non-Toll Road to Toll Road** - Environmental studies and public involvement should be part of a process for considering changing an operating non-toll road

to a toll road. Environmental approvals would be required and changes in regional policy and state law would apply to this scenario.

TxDOT publications entitled *Guidance on the Environmental Process for Toll Roads* and *Guidelines for TxDOT – Regional Toll Road Authority Cooperation and Coordination*, and the FHWA publication *Policy for Planning, Environment, and Project Development for Toll Roads* contain further guidance on the planning and environmental processes for toll roads.

4.0 Impact Assessments

Chapter 4 contains guidance for assessing impacts to water, biological, cultural, physical, and community resources. The following sections provide procedures and guidance for documenting impacts in environmental documents (EQs, EEs, CEs, EAs, EISs, and Re-evaluations), technical memoranda, and other reports. The guidance included in this chapter is not all encompassing; therefore, additional technical analyses may be required on a project specific basis.

Appropriate agency coordination protocol shall be followed for all NTTA projects. The NTTA shall communicate directly with resource/regulatory agencies for projects that are locally-funded; whereas, NTTA coordination with resource/regulatory agencies shall be through TxDOT/FHWA for projects utilizing federal/state funds. The Environmental Consultant shall not contact any local, state, or federal agency directly unless authorized in advance by NTTA.

Initial Assessments

Data collection and field visits must be conducted for all NTTA projects. Field visits shall be documented and representative project photographs shall be included if impacts are anticipated to water, biological, cultural, physical, and/or community resources. All photographs shall include a caption that describes the view point and location and be included as an attachment to the environmental document or submitted for NTTA project files. Field visit notes shall also be submitted for NTTA project files.

A constraints map is required for each project that clearly shows the project area, pertinent information (cross streets, proposed ROW/easements, directional arrow, scale, project name, etc.), and the project specific constraints. The constraints map shall be on 11- x 17-inch sheets and shall use the most current color aerial photography available. The constraints map shall be attached to the environmental document. Individual impact assessment exhibits may reference the constraints map rather than creating a separate exhibit for that section, if applicable.

4.1 Water Resources

This section provides guidance on the procedures for consistently assessing and documenting water resources in order to satisfy local and federal/state requirements for NTTA projects. This section discusses waters of the U.S., including wetlands; navigable waters; water quality; and floodplains.

4.1.1 Waters of the U.S., Including Wetlands

All NTTA projects shall assess impacts to waters of the U.S., including wetlands, in accordance with Section 404 of the CWA. **The procedures for assessing impacts to waters of the U.S., including wetlands, are the same for locally-funded and federal/state funded projects.**

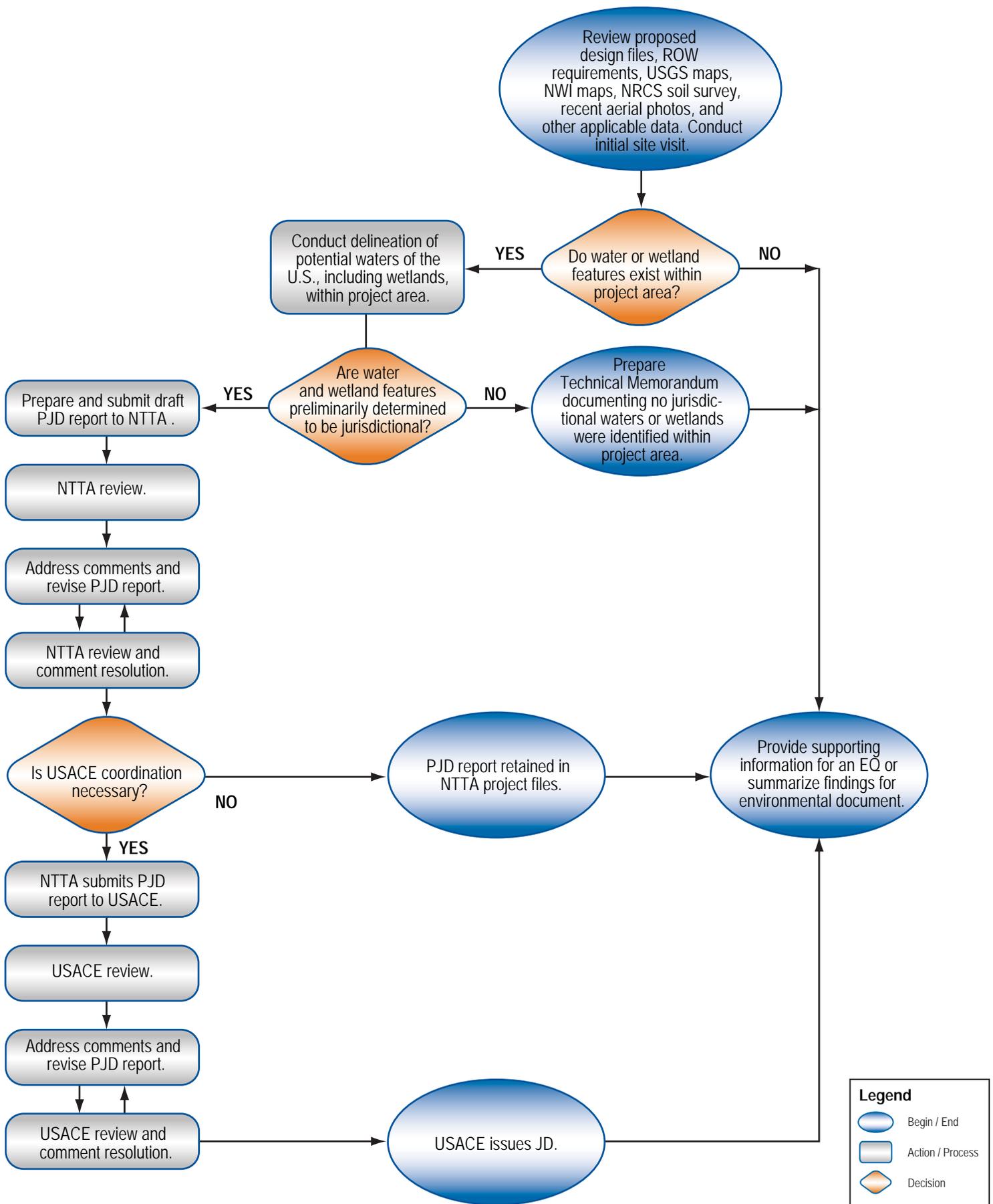
Assessment Procedures

During the initial data collection process, the Environmental Consultant's qualified wetland delineator shall review proposed design files, ROW requirements, United States Geological Survey (USGS) maps, National Wetland Inventory (NWI) maps, NRCS soil surveys, aerial photographs, and other applicable data.

Additionally, the Environmental Consultant's qualified wetland delineator shall conduct an initial site visit to determine if potential water/wetland features are present within the project area. The following procedures shall be utilized to determine the proper documentation for waters of the U.S., including wetlands.

- If no potential or actual water/wetland features exist within the project area, the Environmental Consultant's qualified wetland delineator shall summarize the results of the initial data collection and site visit for inclusion in the environmental document and provide supporting information for NTTA project files.
- If potential waters of the U.S., including wetlands are present within the project area based on the data collected and the initial site visit, the Environmental Consultant's qualified wetland delineator shall conduct a wetland delineation. The wetland delineation shall be conducted in accordance with the *1987 Corps of Engineers Wetland Delineation Manual (1987 Manual)*, the latest Rapanos cases guidance (Rapanos guidance) issued by the USACE and the EPA, and other current procedures or guidance such as the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region* (USACE Regional Supplement). Prior to the wetland delineation, the Environmental Consultant shall obtain right-of-entry permission for properties within the proposed ROW of a project.
 - If no waters/wetlands are preliminarily determined to be jurisdictional, the Environmental Consultant's qualified wetland delineator shall prepare a Technical Memorandum that discusses why the waters/wetlands within the project area do not meet the criteria of the *1987 Manual*, the Rapanos cases guidance, the USACE Regional Supplement, and any other relevant guidance. The Technical Memorandum shall be summarized in the environmental document and submitted for NTTA project files.
 - If any waters/wetlands are preliminarily determined to be jurisdictional, the Environmental Consultant's qualified wetland delineator shall prepare a Preliminary jurisdictional determination (PJD) report in accordance with the USACE Fort Worth District guidance, *Procedures for Jurisdictional Determinations*, and the suggested content for PJD reports in attachment **MAN-14-A6**. The Environmental Consultant's qualified wetland delineator shall include a completed jurisdictional determination (JD) form in accordance with the joint USACE/EPA publication, *Jurisdictional Determination Form Instructional Guidebook*. In certain circumstances, the Environmental Consultant's qualified wetland delineator may need to conduct a significant nexus evaluation to support jurisdictional and non-jurisdictional determinations in accordance with the Rapanos cases guidance. The Environmental Consultant's qualified wetland delineator shall also complete form **MAN-14-F3** for each stream crossing within the project area. The Environmental Consultant's qualified wetland delineator shall submit the PJD report for review by PDD Environmental Staff to determine if further action and coordination with the USACE is necessary. The USACE shall issue a formal JD in response to the PJD report. The PJD report shall be submitted for NTTA project files and summarized in the environmental document or attached to the EQ.

Refer to **Figure 4-1: Waters of the U.S. - Preliminary Jurisdictional Determination**, for a flow chart illustrating the above-mentioned procedures.



Waters of the U.S. - Preliminary Jurisdictional Determination

Figure 4-1

Following the PJD report, the Environmental Consultant's qualified wetland delineator shall conduct a preliminary impact assessment for all potential jurisdictional waters/wetlands within the project area. The impact assessment shall include calculations of temporary and permanent impacted jurisdictional areas and linear feet of impacts within the project ROW. The Environmental Consultant's qualified wetland delineator shall finalize the impact assessment following the approved JD from the USACE.

If impacts to waters/wetlands are anticipated, refer to **Chapter 5** of this Manual to determine potential permitting requirements. If a permit with notification to the USACE is required, a NEPA document may be required and the Environmental Consultant's qualified wetland permitting specialist shall coordinate further steps with PDD Environmental Staff.

Environmental Documentation

The environmental document shall include the following:

- A summary of the initial data collection and site visit;
- A summary of the Technical Memorandum or the PJD report;
- A summary table with the following information: names and descriptions of jurisdictional waters/wetlands within the project area; associated observation points; and acreages of temporary and permanent impacts within the project ROW;
- A discussion of anticipated permitting requirements; if the activity is a single and complete project; what level of Section 401 water quality certification (Tier I or II) is required; and which best management practices (BMPs) would be utilized during construction;
- A statement regarding the need for stream channelization, if applicable;
- A discussion of any USACE coordination that has occurred, including an assigned project number, if applicable; and
- The following attachments: wetland determination data forms, stream data forms (**MAN-14-F3**), an aerial photograph exhibit identifying the location and area of each jurisdictional water/wetland within the project ROW, the Technical Memorandum or PJD Report (if necessary), and approved JD form (if obtained).

Supporting Information

If no potential or actual water/wetland features exist within the project area, the Environmental Consultant's qualified wetland delineator shall summarize the results of the initial data collection and supply the following supporting information to NTTA in both hard copy and electronic format: aerial photography; USGS topographic quad maps, NWI, and NRCS soil maps showing the project ROW; survey data; project site photographs; and a brief summary documenting the absence of water/wetland features.

If potential waters of the U.S., including wetlands are present within the project area, the Environmental Consultant shall supply the following supporting information to NTTA in both hard copy and electronic format: Geographic Information System (GIS) shape files of the waters/wetlands within the project area, calculation worksheets, and impact assessment drawings indicating avoidance of wetlands and minimal impacts to waters.

4.1.2 Navigable Waterways

All NTTA projects shall assess possible impacts to navigable waterways in accordance with the General Bridge Act of 1946, Section 9 of the RHA of 1899 (administered by the USCG), and Section 10 of the RHA of 1899 (administered by the USACE). **The procedures for assessing impacts to navigable waterways are the same for locally-funded and federal/state funded projects. However, agency coordination for locally-funded projects shall occur directly between NTTA and the USCG/USACE, whereas agency coordination for federal/state funded projects shall occur between TxDOT/FHWA and the USCG/USACE.**

Assessment Procedures

Sections 9 and 10 apply to navigable waterways of the U.S. Navigable waterways are those waters that are subject to the ebb and flow of the tide and/or are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the water body, and is not extinguished by later actions or events that impede or destroy navigable capacity.

The principal navigable waterways in Texas are the Gulf coastal bays, the Gulf Intracoastal Waterway, the Trinity River from the Gulf of Mexico to Fort Worth, and the ship channels serving the Gulf ports. Within the NTTA area of operation, the Trinity River is subject to USACE Section 10 jurisdiction from Riverside Drive in Fort Worth, Texas extending downstream to a point where Houston, Madison, and Walker counties intersect.

Because only a limited portion of the NTTA service area includes a navigable waterway, it is unlikely that NTTA projects shall require Section 9/Section 10 permits or a USCG lighting exemption (for bridges over waters that have little or no nighttime traffic). However, the Environmental Consultant shall still determine if coordination with the USCG and the USACE is required to obtain an exemption from the permitting requirements. The Environmental Consultant shall refer to **Chapter 5** of this Manual and the TxDOT ENV *Environmental Manual* for guidance to determine if navigable waterways are present within the project area.

For locally-funded projects, NTTA shall consult with the USCG directly and include the navigability determination in their environmental documents. The Environmental Consultant shall complete the USCG questionnaire for navigability determinations in all cases. This completed form shall be kept in the project administrative record as the supporting information for the determination recommendation and final decision based upon FHWA/USCG approval as appropriate for federal/state funded projects.

For federal/state funded projects, TxDOT shall consult with the FHWA and/or the USCG to make navigability determinations and include the navigability determination in their environmental documents. The NTTA shall assist TxDOT in the preparation and coordination of navigability determinations.

If it is determined that navigable waterways exist within the project area and that a Section 9/Section 10 permit or a USCG lighting exemption is necessary, a NEPA document may be required. The Environmental Consultant shall coordinate further steps with PDD Environmental Staff.

Environmental Documentation

The environmental document shall include the following:

- A summary of navigable waterways, if any; and
- A summary of the permitting and/or lighting exemption requirements, if necessary.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for navigable waterways assessments in both hard copy and electronic format: a brief summary documenting the reasons waterways are not considered navigable, including project photographs of waterway crossings; USCG coordination regarding lighting exemption; and a map depicting Section 10 Trinity River jurisdictional area in relation to the project area.

4.1.3 Water Quality

This section discusses storm water and impaired waters.

4.1.3.1 Storm Water

All NTTA projects shall be assessed for compliance with the TCEQ TPDES Construction General Permit TXR150000 (CGP) under provisions of Section 402 of the CWA. **The procedures for assessing storm water impacts are the same for locally-funded and federal/state funded projects.**

Assessment Procedures

All NTTA projects shall be evaluated by the DSE to determine the appropriate CGP, NOI, SW3P, Municipal Separate Storm Sewer System (MS4), and Storm Water Management Plan (SWMP) requirements. The DSE, in conjunction with NTTA, shall be responsible for coordinating the submittals of appropriate storm water permits and notifications to the TCEQ prior to construction. The Environmental Consultant shall coordinate with the DSE and submit a project email from the DSE verifying the appropriate storm water documentation required. Refer to **Chapter 5** of this Manual for guidance on CGP compliance and requirements.

Environmental Documentation

The environmental document shall include the following:

- A description of the amount of earth disturbed and the appropriate CGP, NOI, and SW3P requirements;
- A general description of the BMPs (including temporary erosion and sediment control structures, as well as, permanent sediment control structures; that shall be implemented to minimize potential impacts); and
- A statement regarding MS4 permits and any applicable requirements of the SWMP.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for storm water compliance assessments in both hard copy and electronic format: a map showing acreage of earth disturbance.

4.1.3.2 Impaired Waters

All NTTA projects shall assess impacts to impaired waters in accordance with Section 303(d) of the CWA. **The procedures for assessing impacts to impaired waters are the same for locally-funded and federal/state funded projects.** Coordination with the TCEQ concerning impacts to threatened or impaired water bodies shall follow the TxDOT/TCEQ MOU.

Assessment Procedures

The TCEQ *Texas Water Quality Inventory* shall be reviewed to determine if runoff from the project would discharge directly into or within 5 miles upstream of a segment which is listed as threatened or impaired on the most recent EPA-approved Section 303(d) list. If runoff or discharge would occur, the Environmental Consultant shall determine the appropriate BMPs that would be used to minimize water quality impacts.

Environmental Documentation

The environmental document shall include the following:

- A statement regarding if runoff or direct discharges would impact Section 303(d) listed threatened or impaired waters; and
- A list of appropriate BMPs that would be used in coordination with the DSE if discharges would occur.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for impaired waters assessments in both hard copy and electronic format: the appropriate pages of Section 303(d) list and a standard project email from the DSE verifying there will not be any runoff discharge directly into or within 5 miles upstream of any threatened or impaired stream segments.

4.1.4 Floodplains

All NTTA projects shall be assessed to determine compliance with the NFIP. **The procedures for assessing impacts to floodplains are the same for locally-funded and federal/state funded projects.**

Assessment Procedures

Floodplain impacts shall be assessed through the use of FEMA FIRMs. The Environmental Consultant shall coordinate with the DSE to ensure that the project is being designed to permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the facility, stream, or other property. Additionally, the Environmental Consultant, in conjunction with the DSE, shall determine that the proposed project would not increase the BFE to a level that would violate applicable floodplain regulations and ordinances. The Environmental Consultant shall obtain a project email from the DSE verifying whether the project will or will not result in modifications to the BFE.

If a project is within the Trinity River Corridor Development Certificate (CDC) Regulatory Zone, a CDC permit may be required. The Environmental Consultant shall refer to the *Corridor Development Certificate Manual, Trinity River Corridor, North Central Texas* to make this determination. Refer to **Chapter 5** of this Manual for more information regarding the CDC process.

The Environmental Consultant shall notify PDD Environmental Staff if there are alterations or increases to the BFE and if the project may require a CDC as early as possible in the project development process.

Environmental Documentation

The environmental document shall include the following:

- A summary of the floodplains that would be encountered along the project limits and which counties and communities are participants in the NFIP;
- A statement if the project is located in a FEMA designated 100-year floodplain, include a statement regarding changes to the BFE, if any;
- A statement on whether the project is within the Trinity River CDC Regulatory Zone. If the project is located within the Trinity River CDC Regulatory Zone, the document must state if a CDC permit is required or if an exemption shall be sought; and
- The following attachments: FEMA FIRMs and a project location map indicating the project area within the Trinity River CDC Regulatory Zone, when applicable.

Supporting Information

The Environmental Consultant shall supply the following supporting information, as applicable, to NTTA for floodplains assessments in both hard copy and electronic format: a copy of the FEMA FIRM panel with overlay of project limits; standard project email from the DSE verifying whether or not the project will cause modifications to the BFE; and a map identifying the Trinity River CDC Regulatory Zone and proposed project limits.

4.2 Biological Resources

This section provides guidance on the procedures for consistently assessing and documenting biological resources in order to satisfy local and federal/state requirements for NTTA projects. This section discusses vegetation and wildlife as well as threatened and endangered species.

4.2.1 Vegetation and Wildlife

All NTTA projects shall assess impacts to vegetation and wildlife in accordance with the 1998 TxDOT/TPWD MOA. **The procedures for assessing impacts to vegetation and wildlife are the same for locally-funded and federal/state funded projects.**

Assessment Procedures

The Environmental Consultant's qualified wildlife biologist shall classify vegetative communities in accordance with descriptions provided in *The Vegetation Types of Texas* as published by the TPWD in 1984. Initial assessments shall include the review of recent high quality aerial photographs of the project study area. The Environmental Consultant's qualified wildlife biologist shall verify vegetative communities observed on aerial photographs during field visits to the project site. Information for each vegetative strata (i.e., tree, shrub, vine, and herbaceous layers) shall be gathered while in the field. This information shall include, but is not limited to, dominant species, range and average tree height, range and average tree diameter at breast height (dbh), estimates of percent canopy cover, etc. Unusual vegetative features including fencerow vegetation, riparian vegetation, trees that are unusually larger than other trees in the area, and unusual or isolated stands of vegetation shall be noted, photographed, and mapped in the field.

The Environmental Consultant's qualified wildlife biologist shall also identify, photograph, and map any special habitat features for wildlife while in the field. Special habitat features include bottomland hardwoods, caves, cliffs, bluffs, native prairies, seeps and/or springs, snags, water bodies, and bridges or culverts supporting or likely to support bird or bat colonies.

The Environmental Consultant's qualified wildlife biologist shall assess potential vegetation and wildlife impacts by utilizing GIS or similar software to determine acreage calculations of impacts to each vegetation type and special habitat feature.

The Environmental Consultant's qualified wildlife biologist shall also conduct an assessment of wildlife using, or likely to use, the project study corridor. All wildlife observed, either by direct observation (e.g., seeing or hearing the animal) or by secondary observation (e.g., prints, scat, etc.) shall be documented. Further information concerning wildlife in the area shall be attained from resources such as the TPWD, the NRCS, the USFWS, and other local resources (e.g. universities, etc.).

Environmental Documentation

The following information or descriptions shall be included in environmental documents, in accordance with the TxDOT/TPWD MOA:

- For projects involving no proposed ROW, the habitat description shall include a general description of vegetation type as described in *The Vegetation Types of Texas*. Maps, aerial photographs with dates, project photographs, etc. (when available) may be provided to supplement the general description of the area and the description of what vegetation occurs within the ROW.

If the vegetation within the ROW does not match the description contained in *The Vegetation Types of Texas* or, if there is an unusual difference between the vegetation identified in the ROW and outside the ROW, additional details shall be required in the description. If special habitat features are present, additional details shall also be required in the description. Any habitat which occurs for state- or federally-listed species within or abutting the ROW shall be described. The description shall include habitat requirements for these species.

- For projects on new location, the vegetation description shall address the project corridor(s) and include the information described in Section (1) of the TxDOT/TPWD MOA. The vegetation description shall include dominant species for each vegetation strata, height and dbh of trees, percent canopy cover of trees, and acres of vegetation types.
- For projects on existing location that require additional ROW, the habitat description shall be determined based on the level of potential impacts and the nature or the resource to be impacted. The information required in both Sections (1) and (2) of the MOA shall be included in the habitat description.

Proposed impacts to vegetation and wildlife shall be presented in terms of quantified areas (acreage) for both present habitat and potentially impacted habitat to quantify the change and/or loss of habitat and/or species in the environmental document or Technical Memorandum. An assessment of potential impacts to vegetation and wildlife habitat and associated mitigation shall be conducted and documented in accordance with **Chapter 5** of this Manual.

Compliance with the MBTA shall also be addressed in environmental documents. Nesting survey commitments made in the environmental document regarding migratory birds shall be conducted in accordance with **Chapter 6** of this Manual.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for vegetation and wildlife assessments in both hard copy and electronic format: all quantitative/qualitative data utilized in the assessments and any information obtained that was utilized to make a decision that was not presented in the documentation including field notes, project photographs, emails, memos, Web site printouts, phone record summaries, etc.

4.2.2 Threatened and Endangered Species

All NTTA projects shall assess impacts to threatened and endangered species in accordance with the ESA. **The procedures for assessing impacts to threatened and endangered species are the same for locally-funded and federal/state funded projects.**

Locally-funded projects with the potential to impact threatened or endangered species shall comply with Section 10 of the ESA. Locally-funded projects requiring a federal permit, approval, or action shall comply with Section 7 and Section 10 of the ESA.

Federal/state funded projects with the potential to impact threatened or endangered species shall comply with Section 7 and Section 10 of the ESA.

Assessment Procedures

Prior to any field investigations, the Environmental Consultant's qualified protected species biologist shall obtain threatened and endangered species county lists from both the USFWS and the TPWD. Although the TPWD county lists of rare, threatened, and endangered species include information on the presence and status of federally-listed species, the USFWS list shall be referenced and utilized in the documentation and assessment of impacts to federally-listed species.

The Environmental Consultant's qualified protected species biologist shall obtain additional information regarding known locations of previous observations of threatened and endangered species from the TPWD Natural Diversity Database (NDD). This information can be secured by submitting an electronic request to the TPWD Diversity Program. The request shall include data for the USGS topographic 7.5' quadrangle map(s) encompassing the project and the quadrangles immediately surrounding the project area. The email shall include a request for the ArcGIS shapefile, the Element of Occurrence Record (EOR) list, and the EOR report for the USGS quadrangles of interest and include a brief description of the scope/type of project.

The NDD primarily includes known occurrences on public lands and does not indicate where threatened and endangered species do not occur. For this reason, the Environmental Consultant's qualified protected species biologist shall only utilize the NDD as a tool to supplement the county lists and the analysis of potential habitat within the project area. The Environmental Consultant's qualified protected species biologist shall simultaneously evaluate aerial photographs, USGS topographic maps, soil surveys, and the NDD to assess the potential of any listed species, or their habitat, listed on the federal and state county lists in the project area. For federal/state funded projects, the Environmental Consultant shall coordinate with the

appropriate TxDOT District to check the NDD information using the NDD Mimic in accordance with TxDOT SOU requirements.

The Environmental Consultant's qualified protected species biologist shall then conduct a field visit to assess the project area, specifically concentrating on areas of potential habitat. During the field visit, extra effort shall be taken to identify on-going and future land use patterns that may cumulatively impact the species. This information is essential in the documentation of cumulative impacts analyses.

Based on this field data, the Environmental Consultant's qualified protected species biologist shall make a determination of "no effect" or "may affect" based on the collected field data and the environmental analyses. The Environmental Consultant's qualified protected species biologist shall document this determination for each species. If the field visit supports a finding of "no effect" and/or the USFWS and the TPWD indicate that there are no listed species present in the project area, this information shall be documented and the consultation will be complete.

Section 10 of the ESA is applicable for locally-funded projects with a "may affect" determination or which may require "direct take" or "indirect take" permits. Refer to **Chapter 5** of this Manual for more information on Section 10(a) permit procedures. Locally-funded projects requiring a federal permit, approval, or action shall comply with Section 7 of the ESA.

All federal/state funded projects are subject to the provisions of Section 7 of the ESA. For projects of this type, the Environmental Consultant's qualified protected species biologist shall also follow the guidance and procedures in the TxDOT ENV *Environmental Manual*.

If a "may affect" determination is made under Section 7 by the USFWS, the Environmental Consultant's qualified protected species biologist shall complete a Biological Assessment (BA), appropriate to the scope of the project. A BA evaluates the potential effects of an action on listed and proposed species and designated and proposed critical habitat. A BA also determines whether any such species or habitat are likely to be adversely affected by an action and is used in determining whether formal consultation is necessary.

If the BA results in a determination of "no effect" or "is not likely to adversely affect," the Environmental Consultant's qualified protected species biologist shall provide the BA to the USFWS for concurrence. TxDOT advises that statements of "no effect" that are not supported by a biological analysis are not acceptable (i.e., the Environmental Consultant's qualified protected species biologist shall complete adequate research and a field visit before a "no effect" determination may be made).

If the BA results in a determination of "is likely to adversely affect" or "is likely to jeopardize proposed species/adversely modify proposed critical habitat," the Environmental Consultant's qualified protected species biologist, in coordination with PDD Environmental Staff, shall initiate formal consultation with the USFWS as appropriate. The basic content requirements for a BA are stated in 50 CFR 402.12(f) and are further expanded below:

- Description of the project;
- Description of location, surrounding land use, vegetation, geology, soils, wetlands, etc.
- Description of construction activities and timing of activities;

- Description of secondary project features such as staging areas, borrow/waste sites, mitigation sites, etc.;
- Description of interrelated and interdependent actions or activities;
- Description of avoidance and minimization efforts;
- Definition and delineation of an action area (geographic extent of physical, chemical, and biological impacts of project activities);
- List and description of species addressed in the BA, species occurrence in the action area, and presence/absence of critical habitat in the action area;
- Analysis of the presence and condition of listed and proposed species habitat features in the action area, assessment of key habitat features for each species, and presence/absence of suitable habitat for listed and proposed species;
- Analysis of the direct and indirect effects of the action on the species and the condition of its habitat;
- Analysis of the direct and indirect effects of the action on the listed and proposed species critical habitat;
- Identification of additional species-specific impact avoidance and minimization efforts;
- Description of beneficial effects of project activities;
- Assessment of cumulative effects within the action area; and
- Effect determination and summary of rationale for each species/critical habitat analyzed.

Because any effect determination other than “no effect” requires USFWS consultation, the Environmental Consultant’s qualified protected species biologist shall coordinate positive findings with PDD Environmental Staff before initiating informal coordination under Section 7 or an ESA permit under Section 10.

For federal/state funded projects, the FHWA, its designated representative (TxDOT), or a representative from the appropriate federal sponsor must conduct Section 7 coordination or consultation with the USFWS. The PDD Lead Environmental Planner and the Environmental Consultant shall coordinate with the USFWS through the FHWA, TxDOT, or the appropriate federal sponsor to evaluate appropriate actions recommended in the Biological Opinion (BO) to mitigate for impacts to federally-listed threatened or endangered species habitat.

For locally-funded projects requiring a federal permit, approval, or action, the PDD Lead Environmental Planner and the Environmental Consultant shall conduct Section 7 coordination or consultation with the USFWS through the federal agency issuing the permit, approval, or action.

For locally-funded projects (not requiring a federal permit, approval, or action), the PDD Lead Environmental Planner and the Environmental Consultant shall coordinate with the USFWS under Section 10 of the ESA.

Environmental Documentation

The environmental document shall evaluate the potential for any impact to threatened or endangered species or their critical habitat resulting from the project. For each threatened and

endangered species listed to exist or potentially exist within the project area, the environmental document shall include:

- Habitat requirements of the species
- Description of the habitat condition
- Habitat deficits for the species in the project area;
- Temporal or spatial characteristics of the species (migratory, karstic, fossorial, etc.), description of timing or location of project activities;
- Food habits and description of food availability in project area; and
- Sources utilized for the information presented on threatened and endangered species.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for threatened and endangered species assessments in both hard copy and electronic format: a brief summary documenting conclusions from field visits and background research; USFWS local threatened and endangered species listings; TPWD county lists; TPWD NDD search results; and any information obtained that was utilized to make a decision that was not presented in the documentation including field notes, project photographs, phone record summaries of conversations with resource agencies, emails, memos, Web site printouts, etc.

4.3 Cultural Resources

This section provides guidance on the procedures for consistently assessing and documenting cultural resources in order to satisfy local and federal/state requirements for NTTA projects. This section discusses historic-age and archeological resources.

4.3.1 Historic-age Resources

All NTTA projects shall assess impacts to historic-age resources in accordance with Section 106 of the NHPA and/or Chapter 26 of the ACT. **The procedures for assessing impacts to historic-age resources are similar, varying only slightly, for locally-funded and federal/state funded projects depending on regulatory compliance requirements.**

Projects utilizing federal funding or requiring a federal permit or authorization shall comply with Section 106 of the NHPA and Chapter 26 of the ACT. Projects utilizing only state or local funding that do not require a federal permit or authorization shall comply with Chapter 26 of the ACT. However, because NTTA evaluates projects on a federal/state funded or locally-funded basis, all projects utilizing federal and/or state funding shall comply with Section 106.

Historic-age resources coordination shall occur with the THC for most NTTA projects. **If necessary, agency coordination for locally-funded projects shall occur directly between NTTA and the THC, whereas agency coordination for federal/state funded projects shall occur between TxDOT ENV and the THC. Early coordination with TxDOT ENV is recommended and historic-age resources reports should be forwarded for review in advance of the associated NEPA document to the extent possible. In addition, historic-age resources survey documentation for federal/state funded projects shall be reviewed and approved by TxDOT ENV prior to submittal to the THC.** The difference in agency coordination protocol is a result of the PA-TU and the TxDOT/THC MOU.

Assessment Procedures

Historic-age resources are defined as buildings, structures, objects, districts, archeological sites, or traditional cultural properties that are 50 years of age or older. NTTA follows TxDOT ENV's recommendation of establishing a historic-age cutoff date of 45 years or older for historic-age investigations in order to allow for unforeseen delays in project letting dates. Historic-age resources surveys consist of several steps as shown in **Figure 4-2: Historic-age Resources Survey**.

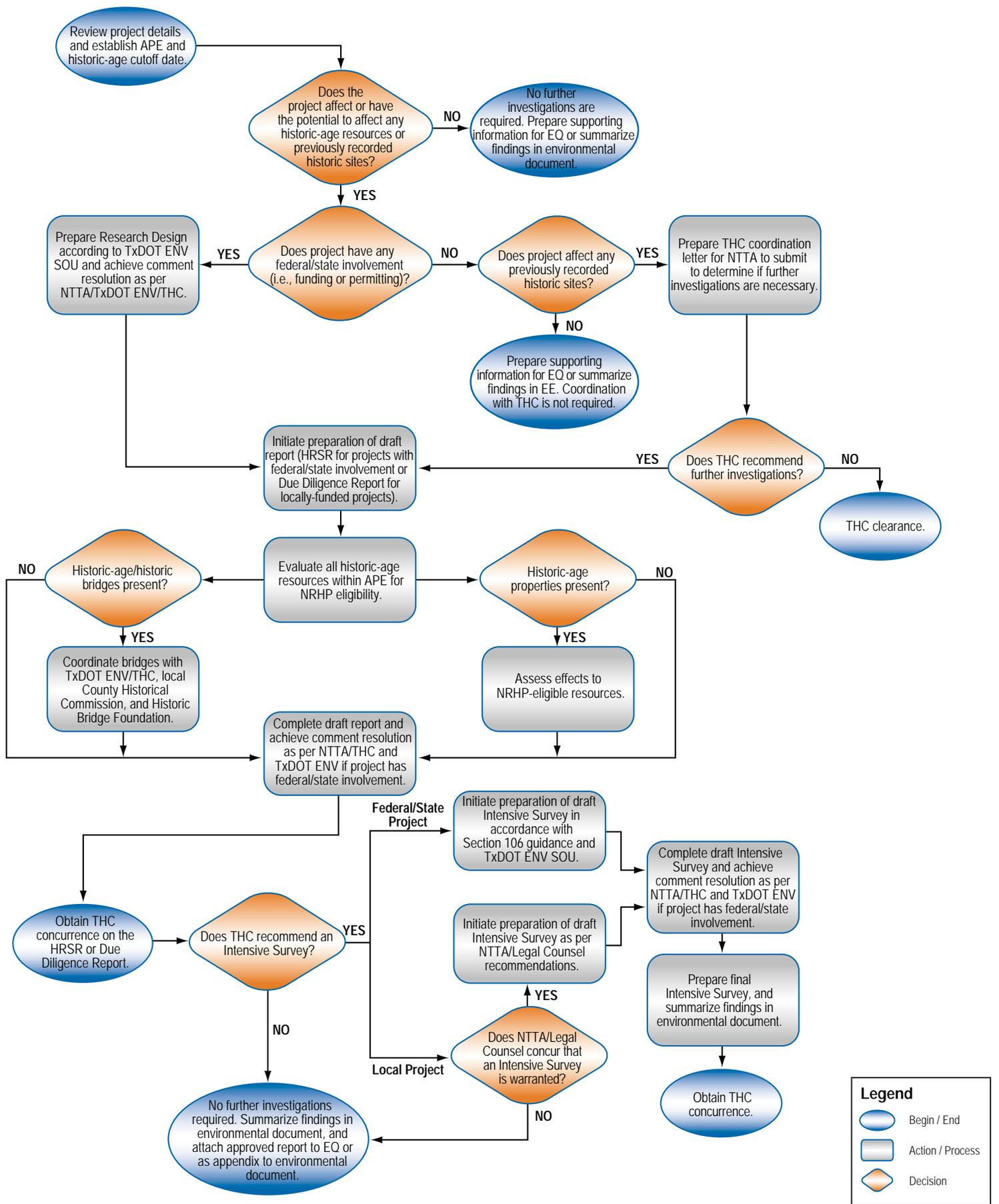
Initially, the Environmental Consultant's qualified historian shall review the project details and establish an area of potential effects (APE) and historic-age cutoff date.

The NTTA shall coordinate with the THC for all projects with state/federal involvement or for locally-funded projects that are proposed to affect or have the potential to affect any previously recorded historic sites. The Environmental Consultant's qualified historian shall prepare a coordination letter for submittal to the THC including a project location map, a project description, documentation of any historic resources found and previous historic-age resources surveys performed within the project area, a recommendation to conduct or not to conduct further investigations, the basis for such recommendations, and a request for the THC's concurrence with the recommendation.

In accordance with Section 106 and with the THC's recommendation, most federal/state funded projects shall require a background investigation and the preparation of a research design. The Environmental Consultant's qualified historian shall prepare a research design outlining the proposed methodology for a historic-age resources survey. Development of the research design shall include, but is not limited to, preparing a project location map including the APE, the existing and proposed ROW boundaries, and the parcel boundaries; reviewing the THC Atlas for historical markers and previously designated historic properties within the study area (1,300 feet from the edge of the proposed ROW); and conducting a literature review of the study area.

Upon approval of the research design from NTTA and TxDOT ENV, the Environmental Consultant's qualified historian shall initiate a reconnaissance survey and prepare a draft Historic-age Resources Survey Report (HRSR) for federal/state funded projects. The preparation of the HRSR shall include, but is not limited to, conducting field surveys; conducting research and preparing historic context narratives; evaluating all historic-age resources within the APE for NRHP eligibility; coordinating historic-age bridges with the THC, TxDOT ENV, the Historic Bridge Foundation, and the local County Historical Commission; and assessing the effects to those resources that are recommended as NRHP-eligible.

In accordance with the ACT and with the THC's recommendation, historic-age resources investigations will likely be necessary for locally-funded projects if the project occurs within a designated historic district, if work is proposed that would impact a recorded historic site, or if a property within the project APE has the potential to divulge information which may be of historical interest. If the THC recommends that further historical investigations are necessary for locally-funded projects, the Environmental Consultant's qualified historian shall initiate a reconnaissance survey and prepare a draft Historic-age Resources Due Diligence Report (DDR) for review by NTTA and submittal to the THC. The DDR format shall follow the format of an HRSR, in accordance with the TxDOT ENV SOUs for historic-age resources. A formal research design methodology is not required prior to survey initiation for locally-funded projects.



Historic-age Resources Survey

Figure 4-2

If a reconnaissance survey did not reveal enough information for the THC or TxDOT ENV to make a determination of NRHP eligibility or effects, the THC may recommend an Intensive Survey.

If the THC recommends an Intensive Survey for a federal/state funded project, NTTA shall conduct the survey in accordance with Section 106 and the TxDOT ENV *SOU for Non-Archeological Historic-age Resource Intensive Survey Reports Review Checklist*. The Intensive Survey shall include a methodology based on the approved research design appropriate to the identification and evaluation of historic-age resources specific to the survey area. The Intensive Survey shall include, but is not limited to, the review of maps, inventories, and photographic documentation which shall be developed in accordance with the TxDOT ENV SOUs for historic-age resources; a brief background history of the project area presenting the appropriate historic contexts; a description of the property type and significance of the property or district in question; and an explicit evaluation of the NRHP eligibility of each resource along with a justification for NRHP eligibility and a determination of the effect that the project would have on any historic resources.

In the event that the THC recommends an Intensive Survey for a locally-funded project, Legal Counsel shall review the recommendation, in coordination with PDD Environmental Staff and the Environmental Consultant, to determine if additional investigations are warranted and feasible for the project. If NTTA concurs with the recommendation to conduct an Intensive Survey, the Environmental Consultant's qualified historian shall initiate the preparation of the survey and draft report summarizing the findings. The NTTA shall review the draft report, and once all comments have been addressed and the Environmental Consultant has submitted a final report, the THC shall review and concur with the findings in the report.

TxDOT ENV and/or the THC shall make the determination of effects of project activities to historic properties. The options for potential effects determinations include:

- **No Effects** – If a project is determined to have no effect to historic properties, the project may proceed as designed and no further coordination with the THC is required.
- **No Adverse Effects** – If a project is determined to have no adverse effect to historic properties, the project may proceed as designed and no further coordination with the THC is required unless the project requires proposed ROW from a historic property. In that case, TxDOT ENV shall coordinate with the THC to comply with the FHWA *de minimis* rules in an effort to avoid the requirement for a more lengthy Section 4(f) analysis of alternatives to taking land from a historic property.
- **Adverse Effects** – If a project is determined to have an adverse effect to historic properties, TxDOT ENV shall consult with the THC and the THC has 20 days in which to respond. If a determination of an adverse effect is made and the THC concurs, NTTA shall consult with the TxDOT District, TxDOT ENV, the DSE, and the SHPO to determine ways to minimize the adverse effect. As soon as TxDOT ENV identifies an adverse effect and notifies the TxDOT District, the NTTA Corridor/Project Manager, Environmental Manager, Lead Environmental Planner, and Environmental Consultant's qualified historian shall initiate discussions to identify mitigation options for the adverse effect. A determination of adverse effect could also trigger a Section 4(f) evaluation if proposed ROW is required from the historic property. The extent of the documentation to show consideration of alternatives to minimize harm shall depend upon the amount of the taking or use of historic properties.

If a historic-age resource is determined eligible for the NRHP, and an adverse effect is identified for the project that cannot be avoided, mitigation may be required. Refer to **Chapter 5** of this Manual for more details regarding mitigation for impacts to historic resources.

The NTTA shall coordinate with TxDOT and the FHWA on federal/state funded projects to make an active effort to identify and involve Indian tribes, consulting parties (i.e., local citizen groups), and members of the public who may have an interest in a project's effects on historic-age resources. Additionally, NTTA shall comply with the FHWA's obligations for public involvement under the NHPA and 36 CFR 800 which exist in addition to public involvement requirements under NEPA. Public involvement requirements under 36 CFR 800 can be combined with public involvement requirements under NEPA, provided that the requirements of 36 CFR 800 are satisfied.

The following TxDOT ENV resources contain additional procedural guidance and requirements for historic-age resources surveys and documentation prepared for federal/state funded projects:

- The PA-TU among the FHWA, the THC/SHPO, the ACHP, and TxDOT;
- TxDOT ENV guidelines provided in the September 8, 2006 draft of *Historic Resources Section 106 Review and NEPA Guide*;
- TxDOT ENV *Environmental Manual*;
- *SOU for Windshield Survey of Non-Archeological Historic-age Resource Review Checklist*;
- *SOU for Non-Archeological Historic-age Resource Research Designs Review Checklist*;
- *SOU for Non-Archeological Historic-age Resource Reconnaissance Survey Reports Checklist*;
- *SOU for Non-Archeological Historic-age Resource Intensive Survey Reports Review Checklist*;
- *SOU for Discussion of Effects on Non-Archeological Historic Resources as Components of HRSRs and NEPA Documents Review Checklist*;
- *SOU for Non-Archeological Historic Properties Section 4(f) De Minimis Report in FHWA Projects Review Checklist*;
- *SOU for Non-Archeological Historic Properties Individual Section 4(f) Determination Reports in FHWA Projects Review Checklist*; and
- *SOU for Non-Archeological Historic-age Resources Section 106 Public Involvement Plan Review Checklist*.

The Environmental Consultant's qualified historian shall follow TxDOT ENV guidance for federal/state funded projects to demonstrate compliance with THC reporting standards and the *Archeology and Preservation: Secretary of the Interior's Standards and Guidelines*.

Environmental Documentation

Environmental documentation for locally-funded and federal/state funded projects shall contain a summary of the historic-age resources investigations conducted for the project with the following information:

- A description of efforts to identify historic-age resources, including records searches and previous surveys;
- A discussion on the presence or absence of any historic-age resources within the project area;
- A discussion on how the effects of historic-age resources were considered in the development and selection of the project alternatives;
- A status of the coordination efforts with the THC;
- A status of the reconnaissance survey;
- A discussion of whether any NRHP-eligible resources or RTHLs are located within the project area;
- A discussion of the anticipated effects that the project would have on the NRHP-eligible resources;
- A discussion of any efforts proposed to minimize and mitigate anticipated negative effects to the NRHP-eligible resources;
- A description of planned or completed public involvement activities regarding the anticipated adverse effects to any NRHP-eligible resources; and
- The resolution of any adverse effects (if known) on any NRHP-eligible resources.

Stand alone HRSRs or Historic-age Resources DDRs shall also be attached as appendices to the environmental document or EQ to document compliance with the ACT and coordination with the THC.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for historic-age resources surveys in both hard copy and electronic format: all quantitative/qualitative data utilized for the survey not already disclosed in the environmental document or the HRSR/DDR including field notes, emails, memos, Web site printouts, phone record summaries, maps, etc. In addition, if it is determined that the project does not affect or have the potential to affect any historic-age resources or previously recorded historic sites, the Environmental Consultant shall provide a standard project email documenting the findings of previous investigations concluding that no historic-age resources or previously recorded historic sites exist within the project area.

4.3.2 Archeological Resources

All NTTA projects shall assess impacts to archeological resources in accordance with Section 106 of the NHPA and/or Chapter 26 of the ACT. **The procedures for assessing impacts to archeological resources are the same for locally-funded and federal/state funded projects.**

Archeological resources coordination shall occur with the THC for all NTTA projects. **Agency coordination for locally-funded projects shall occur directly between NTTA and the THC, whereas agency coordination for federal/state funded projects shall occur between TxDOT ENV and the THC. Early coordination with TxDOT ENV is recommended and archeological resources reports should be forwarded for review in advance of the**

associated NEPA document to the extent possible. In addition, archeological resources survey documentation for federal/state funded projects shall be reviewed and approved by TxDOT ENV prior to submittal to the THC. The difference in agency coordination protocol is a result of the PA-TU and the TxDOT/THC MOU.

Assessment Procedures

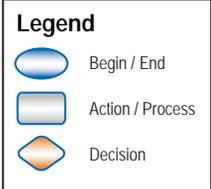
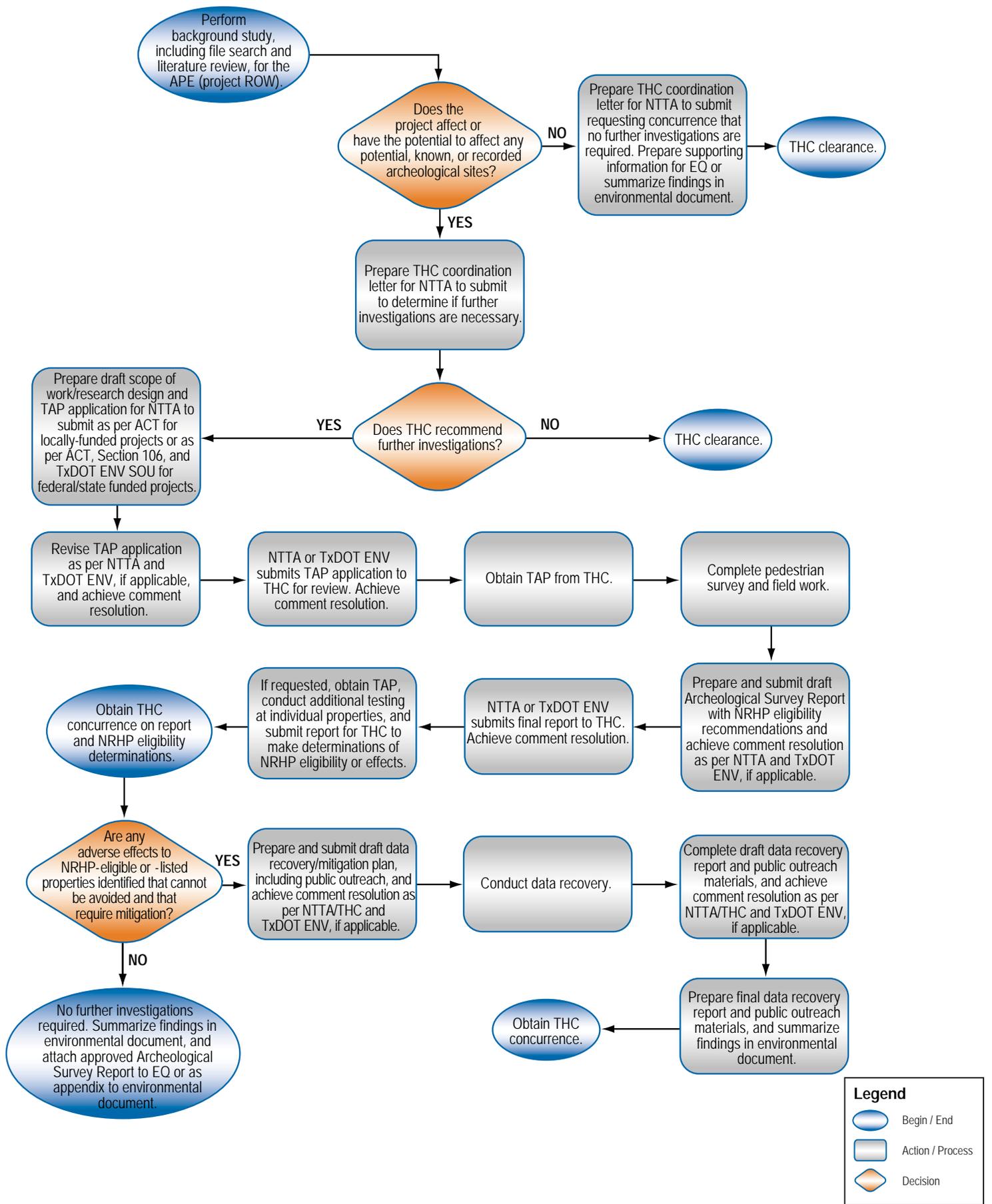
Archeological investigations consist of several steps as shown in **Figure 4-3: Archeological Resources Investigation**. The first step is to perform a background study, including a file search and literature review, for the APE (area contained within the project ROW for archeological investigations). Before conducting field investigations, the Environmental Consultant's qualified archeologist shall conduct research to determine the potential for significant sites or properties, including records searches, maps or other archival information. Such investigations shall include reviewing site files and maps at the THC and the Texas Archeological Research Laboratory (TARL), the NRHP, soil survey maps, county records, and city/county historical societies.

The Environmental Consultant's qualified archeologist shall prepare a coordination letter for submittal to the THC including the results of the background study, a recommendation to conduct or not to conduct further investigations, the basis for such recommendations, and a request for the THC's concurrence with the recommendation. If a potential for archeological resources is found and the THC concurs that further investigations are necessary, the Environmental Consultant's qualified archeologist shall prepare a TAP application, including a scope of work/research design methodology, and obtain a permit number to conduct an on-site walking survey, also known as a pedestrian survey, for the project.

Once TxDOT ENV and/or the THC approve the scope of work/research design, a TAP has been obtained, and written requests for right of entry (ROE) have been coordinated, the Environmental Consultant's qualified archeologist shall initiate the field investigation for the properties that have ROE according to the approved methodology. For those properties in which ROE has not been obtained, surveys shall be completed once ROW is acquired.

Upon completion of the pedestrian survey, the Environmental Consultant's qualified archeologist shall produce an Archeological Survey Report following the *Council of Texas Archeologists Guidelines for Cultural Resource Management Reports*. Upon receipt of the survey recommendations, the THC shall make a determination of NRHP eligibility for each of the identified resources. If the pedestrian survey identified archeological resources determined to be potentially eligible for the NRHP but did not reveal enough information to make a determination of NRHP eligibility or effects, the THC may require additional archeological testing to collect further data for use in an NRHP eligibility determination. An additional TAP may be required to conduct any additional investigations.

If the THC anticipates the project shall have an adverse effect to an archeological resource, TxDOT ENV and/or NTTA shall consult with the THC regarding the eligibility determinations. If a site is determined eligible for the NRHP, and an adverse effect is identified for the project that cannot be avoided, data recovery of the site or removal of archeological deposits/artifacts through excavation may be required to mitigate the adverse effect. Refer to **Chapter 5** of this Manual for more details regarding mitigation for impacts to archeological resources.



Archeological Resources Investigation

Figure 4-3

The TxDOT ENV *Environmental Manual* and the following TxDOT ENV SOUs contain additional procedural guidance and requirements for archeological resources surveys conducted for federal/state funded projects:

- *SOU for Background Study, Archeological Resources;*
- *SOU for Individual Antiquities Permit Applications, Archeological Resources;*
- *SOU for Review Standards for Archeological Survey Reports, Individual Permit; and*
- *SOU for Certification Standards for Projects that Do Not Require Project-Specific Review, Archeological Resources.*

The Environmental Consultant's qualified archeologist shall follow TxDOT ENV guidance to demonstrate compliance with THC reporting standards and the *Archeology and Preservation: Secretary of the Interior's Standards and Guidelines*.

Environmental Documentation

The environmental document shall contain a summary of the archeology investigations conducted for the project with the following information:

- A description of efforts to identify archeological sites, including records searches and previous surveys;
- A status of coordination efforts with the THC;
- A status of the pedestrian survey;
- Known information on historic archeological sites based on a search of inventories;
- A discussion of whether any NRHP-eligible sites or those that qualify as SALs are located within the project area; and
- The resolution of any adverse effects (if known) on any NRHP-eligible sites or those that qualify as SALs.

Stand alone Archeological Survey Reports shall also be attached as appendices to the environmental document or EQ to document compliance with the ACT and coordination with the THC. Site specific location information shall be removed from the attached survey reports due to the sensitivity and protection of the resources identified in them.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for archeological investigations in both hard copy and electronic format: all quantitative/qualitative data utilized for the investigations not already disclosed in the environmental document, TAP application, or Archeological Survey Report including field notes, emails, memos, Web site printouts, phone record summaries, maps, etc. In addition, if it is determined that the project does not affect or have the potential to affect any potential, known, or recorded archeological sites, the Environmental Consultant shall provide a standard project email documenting the findings of previous investigations concluding that no potential or known archeological sites exist within the project area.

4.4 Physical Environment

This section provides guidance on the procedures for consistently assessing and documenting impacts to the physical environment in order to satisfy local and federal/state requirements for NTTA projects. This section discusses air quality, traffic noise, and hazardous materials.

4.4.1 Air Quality

4.4.1.1 Traffic Air Quality Analysis

All NTTA projects shall assess impacts to air quality in accordance with the requirements of the CAA. **The procedures for assessing impacts to air quality are the same for locally-funded and federal/state funded projects.** The NTTA follows the procedures set forth in the TxDOT *ENV 2006 Air Quality Guidelines*.

Assessment Procedures

A Traffic Air Quality Analysis (TAQA) shall be conducted for all NTTA added capacity projects involving an annual average daily traffic (AADT) of greater than or equal to 140,000 vehicles per day (vpd) for the estimated time of completion or the design year. This criterion is independent of funding source or air attainment status of the area in which the project is located. Although a TAQA is a federal/state requirement, NTTA has adopted the TxDOT TAQA process for locally-funded projects.

The Environmental Consultant's qualified air quality specialist shall follow the procedures for analyzing traffic air quality provided in the TxDOT *ENV 2006 Air Quality Guidelines*, as appropriate for all NTTA projects. The TAQA process is also depicted in **Figure 4-4: Traffic Air Quality Analysis**.

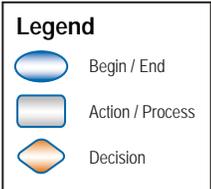
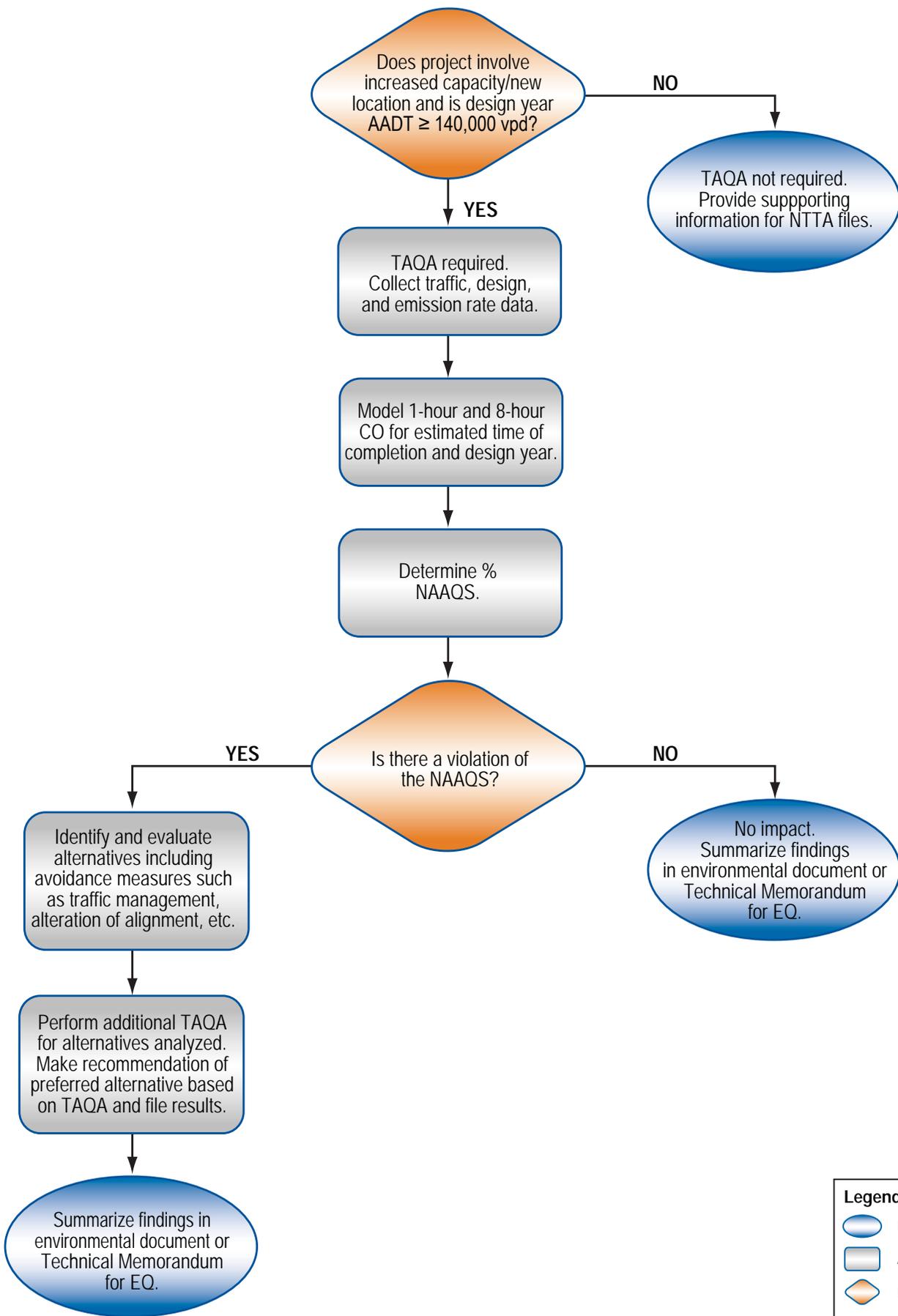
TAQA requirements are the same for nonattainment as well as attainment areas. The need for a TAQA is based upon traffic numbers and nature of the project. **Table 1** is helpful in this determination.

Table 1: TAQA Requirements

Project Type	TAQA Required?
The project is not adding capacity - essentially exempt projects such as bridge replacements, auxiliary lanes, etc.	No
The project is adding capacity but the design year AADT is less than 140,000 vpd	No
The project is adding capacity and the design year AADT is equal to or greater than 140,000 vpd	Yes

Source: TxDOT *Air Quality Guidelines*, 2006.

Of the six criteria pollutants included in the NAAQS, the pollutant with high potential to increase due to automobile exhaust and that can be evaluated at a project specific level is CO. Therefore, proposed projects shall be assessed to determine the need and level of CO analysis (i.e., TAQA) required.



Traffic Air Quality Analysis

Figure 4-4

Because O₃ is a regional issue, analyses to determine motor vehicle emission budgets for O₃ precursors, volatile organic compounds (VOCs) and NO_x, are performed by the NCTCOG during the transportation conformity determination. Conformity ensures that approval is given to transportation projects that are consistent with the air quality goals of the region. It ensures that emissions attributed to transportation activities do not aggravate air quality or interfere with the purpose of the SIP, which is to meet the NAAQS. The Environmental Consultant's qualified air quality specialist shall review the current MTP and TIP to determine if a project meets the regional transportation conformity requirements. Any discrepancies shall be communicated to PDD Environmental Staff for review and further action.

Data to be gathered shall include: proposed design files, traffic (for the estimated time of completion and design years); CO background levels; CO emission rates, and project information (location of the ROW boundaries; number of lanes; width; etc.).

If a TAQA is required, the Environmental Consultant's qualified air quality specialist shall determine 1-hour and 8-hour CO concentrations along the ROW for the estimated time of completion and design year using the CALINE3 model and MOBILE6.2 emission factors. As required by the EPA, CO modeling shall be conducted under the worst-case scenario to demonstrate that standards shall not be exceeded under the worst possible conditions. To help create the worst-case scenario, the CALINE3 model uses the following variables:

- Peak hour traffic volumes;
- Receivers on the ROW line; and
- Very stable atmospheric conditions (mixing height of 1,000 meters, 1 meter/second wind speed, stable atmosphere, and winds blowing parallel to the roadway).

Current and future emissions should continue to follow existing trends; however, if a violation of the NAAQS occurs, the Environmental Consultant's qualified air quality specialist shall contact PDD Environmental Staff to determine if additional alternatives shall be evaluated and if an additional TAQA shall be required.

Environmental Documentation

The TxDOT ENV 2006 Air Quality Guidelines provide the below guidance for addressing TAQA in environmental documents:

- **Attainment Status** - State the county in which the project is located, attainment status and information (i.e., pollutants it is not in attainment of), and whether the transportation conformity rules apply or not.
- **Conformity Statement** - State whether or not the project is consistent with the local Metropolitan Planning Area (MPA) conforming MTP (include the date it was found to conform) and with the TIP. State whether the proposed letting date is within the TIP timeframe. Include supporting documentation (i.e., MTP corridor and TIP pages). If the project is outside an MPA, state that the project is consistent with the STIP if the proposed letting date is within STIP timeframe.
- **Traffic Air Quality Analysis Statement** - If a TAQA was required, include the results in a table format. Results shall include the 1-hour and 8-hour CO concentrations for the estimated time of completion and design year, and the percent of the 1-hour and 8-hour CO standards that was achieved. Also include the tools used to complete the analysis (i.e.,

CALINE3, MOBILE6.2, etc.). If a TAQA was not required, include a statement explaining why this project was exempt from a TAQA.

- **Congestion Management Process** - For single occupancy vehicle added capacity projects in nonattainment transportation management areas, the following shall be included in the environmental document:
 - a statement that the project is consistent with an operational CMP including the date the CMP was approved; and
 - a table outlining other travel demand reduction or operational management strategies committed to for implementation with the proposed project or in the corridor
- **Figure** - Figure indicating the location(s) where the TAQA was performed along the project limits.

The above guidelines for documenting TAQA shall also be followed for the preparation of a Technical Memorandum if required for an EQ.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for a TAQA in both hard copy and electronic format: traffic data, design hourly volume calculation sheets, a list of assumptions, emission rates, CALINE3 input and output files, 8-hour concentration and percent of the NAAQS output files, and a standard project email from the DSE confirming that the design year AADT is not anticipated to be greater than or equal to 140,000 vpd if a TAQA is not performed.

4.4.1.2 Mobile Source Air Toxics Analysis

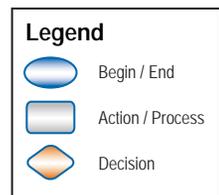
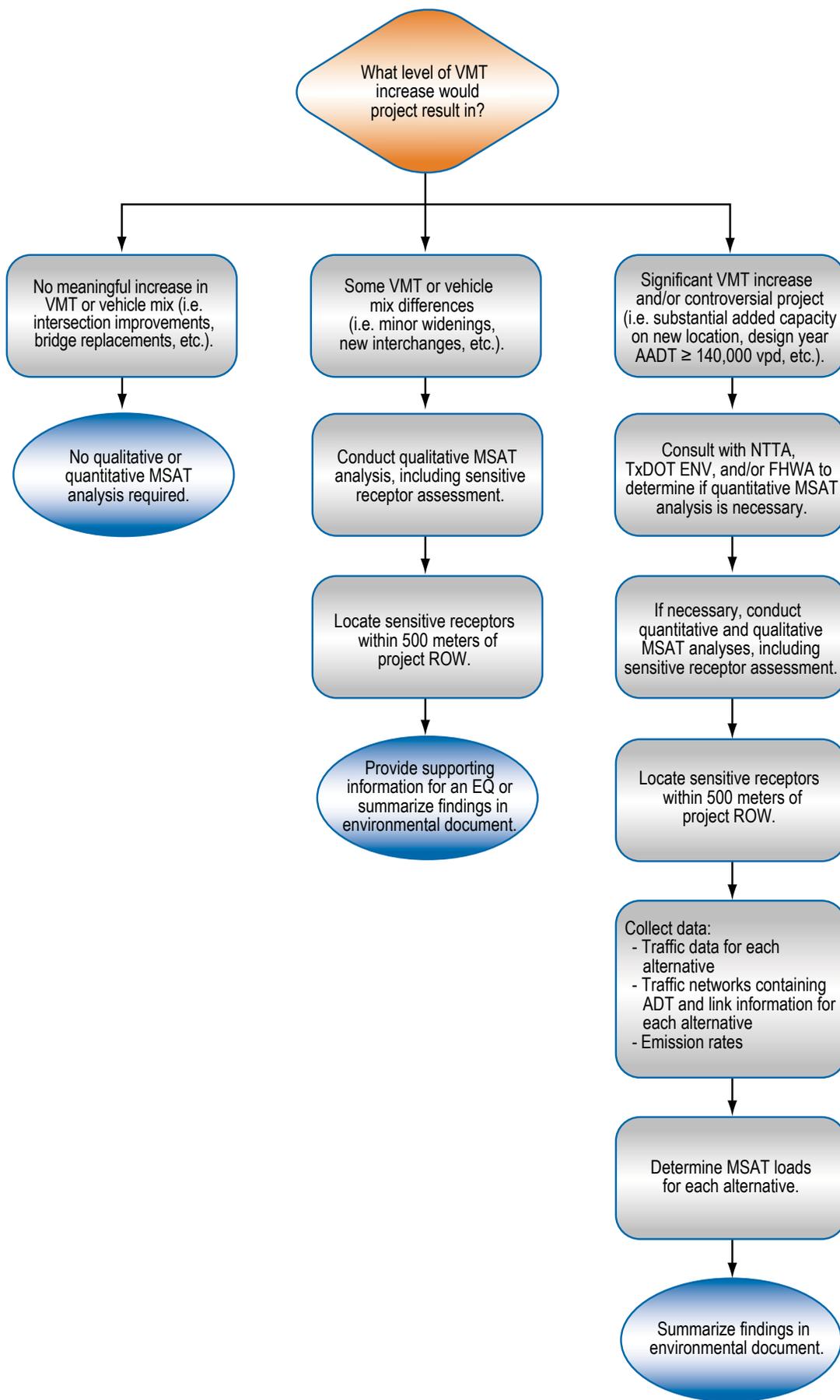
All NTTA projects shall assess impacts to MSAT in accordance with the 1970 CAAA and the TxDOT ENV 2006 Air Quality Guidelines. **The procedures for assessing impacts to MSAT are the same for locally-funded and federal/state funded projects.**

Assessment Procedures

If significant differences in vehicle miles traveled (VMT), vehicle mixes, or speeds are identified, the Environmental Consultant's qualified air quality specialist shall evaluate the need for an MSAT quantitative analysis, regardless of AADT. In addition, if several sensitive receptors (schools, licensed day cares, licensed elder care facilities, and hospitals) are located along the roadway and/or if the public has expressed concern about air pollution associated with the project, a quantitative analysis may be appropriate.

The TxDOT ENV 2006 Air Quality Guidelines contain extensive guidance for assessing MSAT. The procedures for analyzing MSAT are summarized below and in **Figure 4-5: Mobile Source Air Toxics Analysis**.

MSAT analyses are not dependent upon federal funding or attainment status. In addition, the need for MSAT analysis is based upon traffic numbers and the nature of the project. The NTTA has adopted the TxDOT procedure for assessing MSAT.



The CAA identified 188 air toxics, also known as HAP. The EPA has assessed this expansive list of toxics and identified a group of 21 toxics as MSAT, which are set forth in an EPA final rule, *Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17235)*. The EPA also extracted a subset of this list of 21 toxics, labeled as the six priority MSAT. The priority MSAT are benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene. On February 3, 2006, the FHWA issued guidance on when and how to analyze MSAT; however, the EPA has not established regulatory concentration targets for the six relevant MSAT pollutants appropriate for use in the project development process.

As stated in the 2006 FHWA guidance, a project-level analysis of MSAT has not been fully developed and, as such, lacks established criteria for determining when MSAT emissions shall be considered a significant issue in the NEPA context. The three levels for MSAT analysis include no analysis, qualitative analysis, and quantitative analysis. No analysis may be the case for projects without a potential for meaningful MSAT effects. A qualitative analysis serves to explore the general nature of the project. The most comprehensive level of analysis, the quantitative analysis, is used to compare or differentiate among proposed project alternatives and to communicate the results and conclusions to interested parties. For projects warranting MSAT analysis, as depicted in **Figure 4-5**, the Environmental Consultant's qualified air quality specialist shall analyze the six priority MSAT.

The Environmental Consultant's qualified air quality specialist shall follow the tiered approach developed by the FHWA for analyzing MSAT in environmental documents for NTTA projects. Depending on the specific project circumstances, the following three levels of analysis have been identified:

- **No analysis** shall be used for projects that have no potential for meaningful MSAT effects. The types of projects included in this category are those not expected to result in a meaningful increase in VMT, changes in traffic volume, or changes in vehicle mix. (Note: There is no known numerical value or threshold associated with the term "meaningful" as used in this description.) Examples of these types of projects include improvements that do not increase or add capacity such as intersection improvements, pavement improvements, bridge replacements, etc. (i.e. most projects requiring an EQ or a CE).
- **Qualitative analysis** shall be used for projects that have low potential for MSAT effects. The types of projects included in this category are those that serve to improve operations of highway, transit, or freight facilities without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions. This category covers a broad range of projects. Examples of these types of projects include minor widening projects, new interchanges, and most projects where the design year AADT is not projected to exceed 140,000 vpd (i.e. most projects requiring an EE or an EA and some projects requiring an EQ or an added capacity CE). The qualitative assessment shall include:
 - comparing the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated assumed changes in MSAT; and
 - assessing sensitive receptors (schools, licensed day cares, licensed elder care facilities, and hospitals) located within 100 meters (328 ft) and 500 meters (1,640 ft) of the ROW.
- **Quantitative analysis** shall be used for projects that have higher potential for MSAT effects. The types of projects included in this category are those that are expected to create a facility that is likely to meaningfully increase emissions. Examples of these types of

projects include those that propose substantial added capacity on new location, have a high potential for controversy, or have a projected design year AADT that equals or exceeds 140,000 vpd (i.e. most projects requiring an EIS and some projects requiring an EA or an EE).

Projects with higher potential MSAT effects (i.e., projects that have potential for meaningful differences among project alternatives) shall include both qualitative and quantitative MSAT analyses. Projects with higher potential MSAT effects are generally those proposed to be located in proximity to populated areas or in rural areas in proximity to concentrations of vulnerable populations (schools, licensed day cares, licensed elder care facilities, and hospitals). These projects also create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with expected traffic volumes to be equal to or greater than 140,000 vpd by the design year. A quantitative MSAT analysis requires calculations to estimate MSAT loads for the different project alternatives/scenarios for the base case and design year or for those scenarios for which traffic networks are available. Results of the quantitative analysis shall be used for comparison purposes among alternatives.

The Environmental Consultant's qualified air quality specialist shall gather data including traffic data for each alternative, MSAT emission rates, and traffic networks containing average daily traffic (ADT) and link information for each alternative. The Environmental Consultant's qualified air quality specialist shall conduct a field reconnaissance to locate sensitive air receptors including schools, registered day care centers, licensed elder care facilities, and hospitals within 500 meters (1,640 ft) of the ROW.

Environmental Documentation

The content of the environmental document shall vary based upon the level of MSAT analysis conducted. The environmental document shall describe the basis for this determination and a brief description of the factors considered.

The environmental document for a project with no potential for meaningful MSAT effects may only need to include standard language/documentation regarding MSAT impacts as provided in the TxDOT ENV 2006 *Air Quality Guidelines*.

The environmental document for a project with low potential for MSAT effects shall include the following elements:

- Brief MSAT description and discussion of national trend data projecting substantial overall reductions in emissions due to stricter engine and fuel regulations issued by the EPA;
- Comparison of the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated assumed changes in MSAT;
- Listing of the sensitive receptors located within 100 meters (328 ft) and 500 meters (1,640 ft) of the ROW and a map depicting the location of each;
- A discussion of information that is incomplete or unavailable for a project-specific assessment of MSAT impacts, in compliance with CEQ regulations (40 CFR 1502.22(b)); and
- A summary of current studies regarding the health impacts of MSAT, in compliance with 40 CFR 150.22(b).

The environmental document for a project with higher potential MSAT effects shall include both qualitative and quantitative MSAT analyses. In addition to including all elements described in the qualitative analysis, the quantitative analysis results shall include a discussion of the levels of emissions for the six priority MSAT for all alternatives considered to use as a basis of comparison.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for MSAT analyses in both hard copy and electronic format: a list of assumptions, emission look up tables, spreadsheets used to calculate MSAT loads, traffic networks utilized in the analyses, a map and a table with results of sensitive receptor assessment, and documentation justifying the level of MSAT analysis used for the project.

4.4.2 Traffic Noise

All NTTA projects shall assess impacts to traffic noise in accordance with the Noise Control Act and the TxDOT ENV *1996 Guidelines for Analysis and Abatement of Highway Traffic Noise*. **The procedures for assessing impacts to traffic noise are the same for locally-funded and federal/state-funded projects.**

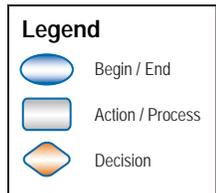
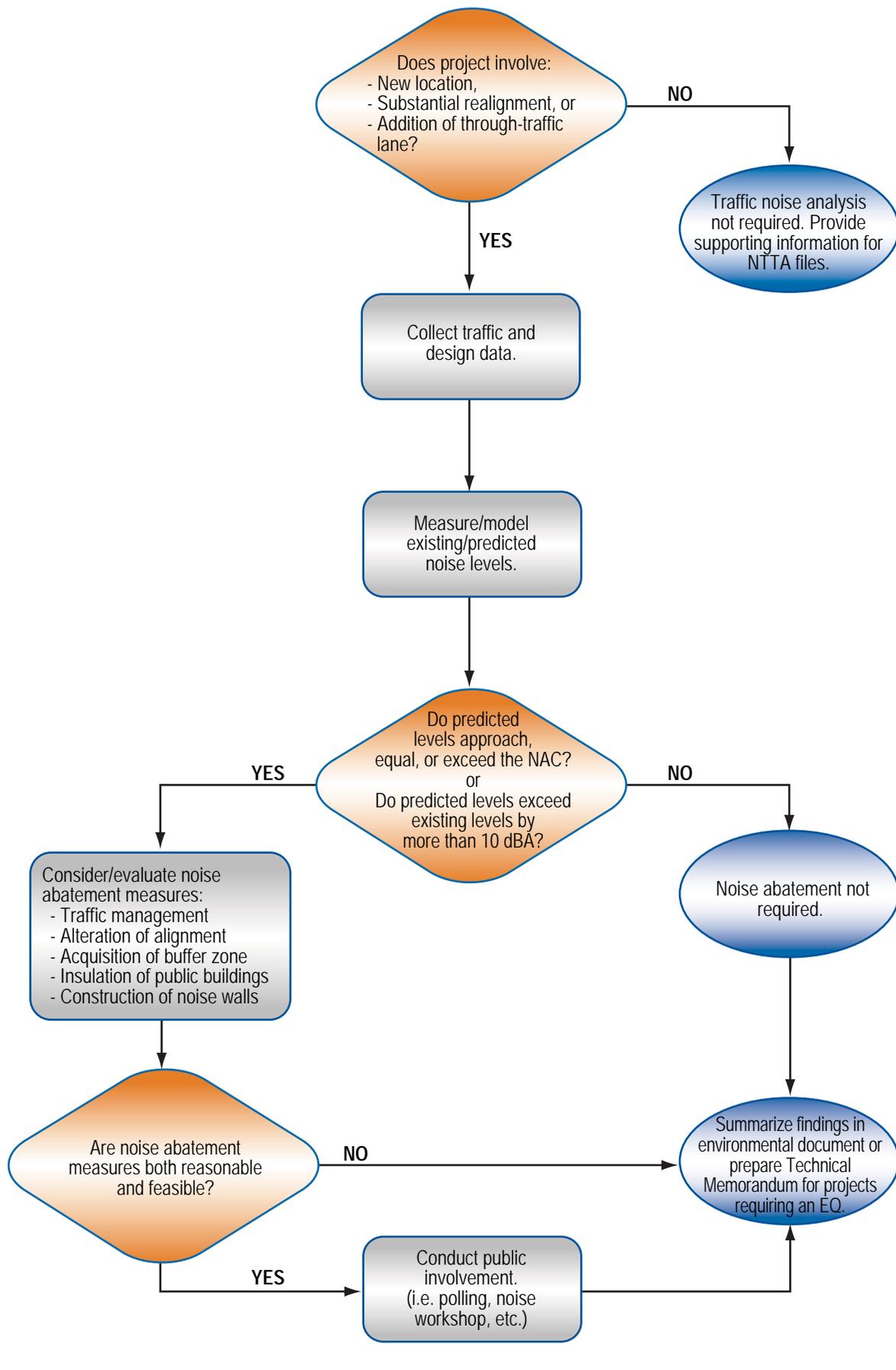
Assessment Procedures

NTTA has adopted TxDOT's traffic noise guidelines; therefore, a traffic noise analysis shall be performed for all NTTA PAL 2 and PAL 3 projects that include new location or involve the physical alteration of an existing highway that substantially changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes (**Figure 4-6: Traffic Noise Analysis**).

Data to be gathered shall include existing and planned land use information, traffic data, and design information. The data collection process includes photographing the project area and conducting field reconnaissance visits to locate sensitive receivers and existing features that shall be incorporated in the model such as existing berms, fences, noise walls, etc. If the project is on new location, the Environmental Consultant's qualified traffic noise analyst shall use a noise meter to measure existing noise levels in the field. If the project is along an existing facility, the Environmental Consultant's qualified traffic noise analyst shall model existing noise levels. The Environmental Consultant's qualified traffic noise analyst shall model predicted noise levels using the latest FHWA-approved version of TNM.

When all land use activity areas adjacent to a proposed NTTA project are undeveloped, with no development planned, designed, or programmed, a complete traffic noise analysis is not necessary. However, the Environmental Consultant's qualified traffic noise analyst shall calculate and document predicted noise impact contours for the project for use in local future development planning.

If it is determined that the project causes a noise impact (predicted noise levels approach, equal, or exceed the noise abatement criteria [NAC]), noise abatement measures such as traffic management, alteration of alignment, acquisition of buffer zones, and construction of noise walls (the most commonly used) shall be considered. Refer to **Chapter 5** of this Manual for traffic noise mitigation procedures and guidance on incorporating noise abatement measures into the project.



Traffic Noise Analysis

Figure 4-6

Environmental Documentation

The TxDOT ENV 1996 *Guidelines for Analysis and Abatement of Highway Traffic Noise* contain sample language that shall be used to document traffic noise impacts in an environmental document. The Environmental Consultant's qualified traffic noise analyst shall prepare a discussion that includes traffic noise fundamentals, regulatory requirements, the traffic noise analysis process, and results of the analysis (i.e., associated impacts and abatement). The traffic noise discussion shall provide government-decision makers with information needed for project alternative selection and for the development of compatible land use plans (i.e., noise contours). All noise receivers and preliminary noise walls (if any) shall be located on a constraints map and referenced in the environmental document. The same guidelines shall also be followed for the preparation of a Technical Memorandum if required for an EQ.

Supporting Information

The Environmental Consultant's qualified traffic noise analyst shall supply the following supporting information to NTTA for traffic noise analyses in both hard copy and electronic format:

- Traffic data utilized for the analysis (including assumptions, traffic projections, etc.);
- Field notes, noise meter used, dates, location, frequency of noise readings, and measured noise levels (if existing noise levels were measured);
- Spreadsheets (excel files) including existing and predicted noise levels;
- Noise wall analyses results for scenarios considered (i.e. 8-, 10-, 12-ft noise walls) if applicable;
- Reasonable and feasible determination;
- TNM input and output files in electronic format; and
- Hard copies of TNM input and output files.

The Environmental Consultant shall obtain a standard project email from the DSE documenting that the project is not proposed on new location, does not substantially alter the horizontal or vertical alignment, or does not include added capacity to support the conclusion that a traffic noise analysis is not required.

4.4.3 Hazardous Materials

All NTTA projects require hazardous materials assessments in accordance with RCRA, CERCLA, the Texas Solid Waste Disposal Act, the Texas Hazardous Substances Spill Prevention and Control Act, and the latest ASTM standards. **The procedures for assessing potential impacts associated with hazardous materials are the same for locally-funded and federal/state funded projects.**

Assessment Procedures

The Environmental Consultant's qualified hazardous materials specialist shall refer to the following guidance materials for detailed procedures and methodologies for conducting hazardous materials investigations:

- 40 CFR 312;
- Texas Health and Safety Code;

- Texas Water Code, Subchapter G, Section 26.261;
- TxDOT ENV *SOU for Hazardous Materials Initial Site Assessment*;
- TxDOT *Hazardous Materials in Project Development*;
- FHWA *Environmental Guidebook*;
- ASTM E1528-06 *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process*;
- ASTM E1527-05 *Standard Practice Environmental Site Assessments: Phase I Environmental Site Assessment Process*; and
- ASTM E1903 *Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

Hazmat Initial Site Assessment

The Environmental Consultant's qualified hazardous materials specialist shall perform a Hazmat Initial Site Assessment for all projects to determine the potential for encountering hazardous materials during ROW acquisition, property management, and/or construction. The purpose of the Hazmat Initial Site Assessment is to determine the potential for encountering hazardous materials contamination within existing and proposed ROW and to begin evaluating the potential impacts to the project. The Hazmat Initial Site Assessment shall include:

- A review of project design and ROW requirements;
- A review of existing and previous land use;
- A review of regulatory agency (the TCEQ and the EPA) databases and files for recorded sites within ASTM-recommended search radii;
- Windshield survey/field visit;
- Interviews, if necessary; and
- A determination of the need for further investigation (through a Phase I ESA or Phase II ESA) considerations and/or coordination.

Phase I ESA

As part of the hazardous materials investigation, the Environmental Consultant's qualified hazardous materials specialist shall review the proposed design, additional ROW/easements, and current/historical land use information (i.e., USGS maps, aerial photographs, city directories, etc.) and conduct a visual survey of the project area. As part of the Phase I ESA, the property shall be evaluated to determine the likelihood of encountering hazardous and regulated material contamination on or near the property. Such contamination is referred to as a recognized environmental condition (REC).

The evaluation shall consist of obtaining information from federal and state database searches through a licensed vendor and visual inspections of the properties affected by the project. Data shall be collected in accordance with the most current ASTM *Standard Practice for a Phase I ESA*, the TxDOT *SOU for Hazardous Materials Initial Site Assessment*, and the EPA "all appropriate inquiry" standard (40 CFR 312). The collection of soil or water samples is not necessary as part of the Phase I ESA. If a REC is identified at a specific property, then additional investigation may be required for the property, such as a Phase II ESA. Additional

investigation of the impacted sites shall consist of interviews with owners and/or tenants, and local government officials about the impacted properties to obtain more information about the type, extent, and history of the contamination. All Phase I ESAs shall be reviewed by NTTA PDD Environmental Staff and Legal Counsel.

The Phase I ESA shall include a discussion addressing the hazardous materials investigation, the results of the investigation and corresponding recommendations for an additional investigation and/or site remediation. The discussion shall categorize the known hazardous materials sites as either a low risk site or a high risk site. Low risk sites are sites that do not pose a threat to the project. Conversely, high risk sites are sites that pose actual or potential threats (i.e. leaking underground storage tank (LUST), undocumented landfill, etc.) and are located adjacent to or within the proposed ROW. The conclusions and recommendations reached in the Phase I ESA shall be clearly summarized.

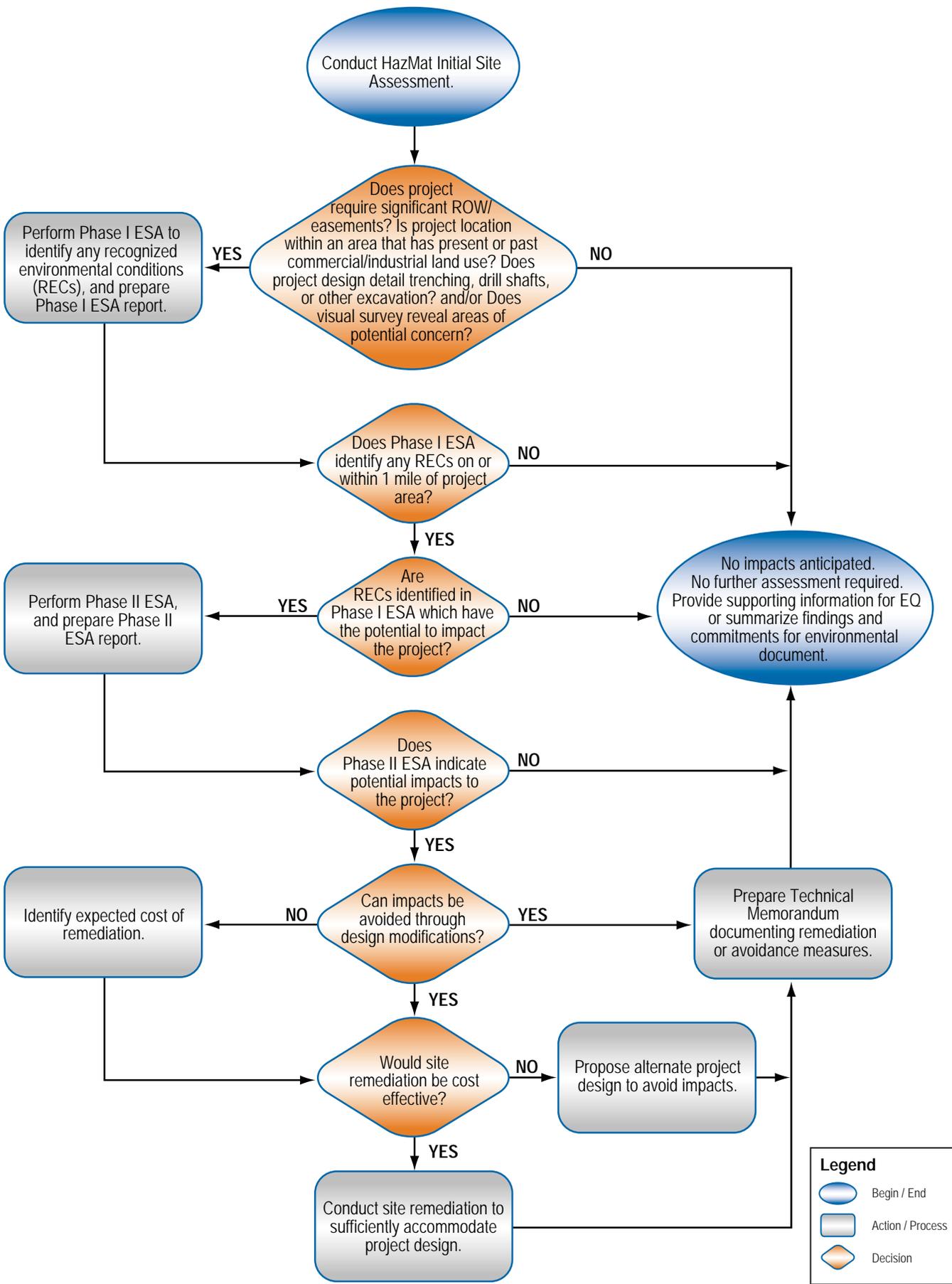
Phase II ESA

If the Phase I ESA identifies RECs that could impact the project, the Environmental Consultant's qualified hazardous materials specialist shall conduct a Phase II ESA. The Phase II ESA shall include the development of a soil and/or groundwater sampling and analysis plan inclusive of locations of borings, depths of borings, locations of monitoring wells, groundwater level and gradient, and hydrogeologic or hydraulic testing. The purpose of this sampling and analysis plan is to identify and characterize the contamination through sampling and analytical testing methods. The sampling and analysis plan shall also determine the horizontal and vertical extents of contamination that might be encountered prior to or during construction. The Phase II ESA report shall include soil boring logs, maps showing vertical and horizontal extent of contaminants, maps of soil borings and underground monitoring wells with unique identification associated with analytical results.

The Phase II ESA shall also assess worker safety and public health exposure concerns related to construction of the project. Finally, the Phase II ESA shall determine the regulatory handling, reuse, and/or disposal requirements for contaminated media and shall recommend a cost-effective preventive action plan to ensure the contamination is not aggravated by the project. All Phase II ESAs shall be reviewed by NTTA, PDD Environmental Staff, and Legal Counsel.

Following the results of the Phase II ESA, it may be necessary to involve Legal Counsel to coordinate with the TCEQ for determining the need for site remediation and the development of a corresponding corrective action plan. If the Phase II ESA indicates the need for site remediation, the Environmental Consultant's qualified hazardous materials specialist shall document the resulting actions such as avoidance or remediation measures in a Technical Memorandum. The Environmental Consultant shall coordinate with PDD Environmental Staff if any hazardous materials sites require general remediation that may require coordination with the TCEQ.

Figure 4-7: Hazardous Materials Assessment illustrates the general steps in performing Phase I and II ESAs, as well as site remediation.



Hazardous Materials Assessment

Figure 4-7

Environmental Documentation

The hazardous materials section of the environmental document shall follow the documentation requirements as specified in the TxDOT ENV *Environmental Manual*, the TxDOT ENV *SOU for Hazardous Materials Initial Site Assessment*, and *Hazardous Materials in Project Development*. The environmental document shall contain the following information:

- A summary of the regulatory records search, including a table detailing all hazardous materials sites within ASTM-recommended search radii. The table shall include the physical address of all sites identified;
- A summary of the results of the Hazmat Initial Site Assessment, including any identified RECs;
- A summary of the windshield survey verifying the results of the hazardous materials regulatory records search, also identifying any RECs;
- A discussion of any early coordination or consultation with regulatory agencies, local entities, or property owners;
- A discussion of any required further coordination, approvals, permits, and site closure with regulatory agencies;
- Disclosure of any known or suspected hazardous materials contamination anticipated to be encountered during construction;
- A summary of the Phase I ESA, if performed; and
- Any recommendations for further investigations, including a Phase II ESA.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for hazardous materials assessments in both hard copy and electronic format: a copy of the regulatory records database search results, field notes from the windshield survey confirming database search results, and a brief summary of Hazmat Initial Site Assessment. Deliverables including Phase I ESA, Phase II ESA, and Technical Memorandum shall be provided, as applicable.

4.5 Community Impacts

This section provides guidance on the procedures for consistently assessing and documenting community resources in order to satisfy local and federal/state requirements for NTTA projects. This section discusses socioeconomics, EJ, indirect and cumulative impacts, and public lands.

4.5.1 Socioeconomics

All NTTA projects shall assess potential socioeconomic impacts in accordance with EO 13166 and the FHWA Technical Advisory T 6640.8A, as applicable. **The procedures for conducting socioeconomic analyses are the same for locally-funded and federal/state funded projects.**

Assessment Procedures

The following topics are included in socioeconomic analyses: community impact assessment, regional/community growth, community cohesion, LEP, access, non-toll alternatives, transit usage, and displacements/relocations.

The Environmental Consultant's qualified community impacts specialist shall conduct a community impact assessment to summarize the impacts to the communities directly impacted by the proposed project. Topics to be addressed include community profiles, demographic make-up, general business trends, and current major planned development. The FHWA 1996 publication, *Community Impact Assessment: A Quick Reference for Transportation*, provides guidance on how to conduct and document community impact assessments.

Regional and community growth shall be captured with the provision of data on the Metropolitan Statistical Area (MSA) regarding population growth rates for past and future trends. The Environmental Consultant's qualified community impacts specialist shall review NCTCOG data (U.S. Census Bureau) on growth rate percentages and changes in growth rate for 2000 and 2030.

Potential influences on community cohesion shall be determined by assessing whether or not the proposed improvements would change the social interaction of neighborhoods or communities adjacent to the proposed corridor. Potential impacts to distinct neighborhoods, ethnic groups, or other specific groups adjacent to the facility shall be determined.

Potential LEP populations shall be identified by reviewing census block group data for individuals who have limited or no fluency in English. The Environmental Consultant shall refer to EO 13166 and incorporate steps taken to ensure meaningful access to project information.

The Environmental Consultant's qualified community impacts specialist shall assess options for users of the facility, including an assessment of travel time differences between toll and non-toll options. The Environmental Consultant shall describe the non-toll alternatives; a comparison of travel time may be applicable. Potential impacts to transit usage along the proposed corridor improvements and potential impacts associated with anticipated displacements and/or relocations of residences or commercial establishments shall be determined. The Environmental Consultant shall follow the FHWA Technical Advisory T 6640.8A to assess anticipated displacements and/or relocations.

Environmental Documentation

The purpose of incorporating socioeconomic findings in an environmental document is to provide a factual presentation of information about the potential impacts of each project alternative, conclusions about methods to address adverse impacts, and any proposed enhancements.

The content of the environmental document shall incorporate the determinations and findings, including both benefits and adverse impacts, resulting from the assessments outlined above. Standard language, such as text related to community cohesion, LEP populations, and displacements/relocations shall be included. Tables presenting quantitative data collected such as NCTCOG 2030 Demographic Forecast data, LEP population data from the U.S. Census Bureau, and demographic data compiled for the community impact assessment shall also be included. The Environmental Consultant shall prepare a community impacts baseline assessment and document the findings in a Technical Memorandum for NTTA projects meeting the criteria for an EQ.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for socioeconomic analyses in both hard copy and electronic format: all quantitative/qualitative data utilized for the various analyses not already disclosed in the environmental document or EQ Technical Memorandum including emails, memos, Web site printouts, phone record summaries, maps, etc.

4.5.2 Environmental Justice

All NTTA projects shall assess and address potential EJ impacts in accordance with EO 12898 and Title VI of the Civil Rights Act. **The procedures for assessing impacts to EJ populations are the same for locally-funded and federal/state funded projects; however, the level of documentation summarizing the analyses may vary depending on the project funding type and the degree of potential impacts.**

Assessment Procedures

The Environmental Consultant's community impacts specialist shall conduct an EJ analysis for each project by following the below steps:

- Determine the study areas for EJ populations;
- Identify minority and low-income populations within the study areas;
- Analyze U.S. Census Bureau data representing the study areas;
- Obtain Origin-Destination (O&D) data from the NCTCOG and analyze, as necessary;
- Summarize and document the potential impacts to EJ populations for each alternative;
- Develop mitigation options if a project is determined to have disproportionate and adverse impacts to EJ populations; and
- Coordinate all mitigation options with PDD Environmental Staff, TxDOT, and the FHWA.

The Environmental Consultant shall refer to the following guidance materials for detailed procedures and methodologies for assessing potential impacts to EJ populations:

- National Cooperative Highway Research Program (NCHRP) Report 532, *Effective Methods for Environmental Justice Assessment*;
- Center for Transportation Research Project 0-5208, *Guidebook for Identifying, Measuring and Mitigating Environmental Justice Impacts of Toll Roads*;
- FHWA *Community Impact Assessment: A Quick Reference for Transportation*;
- FHWA Technical Advisory T 6640.8A;
- TxDOT *Guidance on Environmental Justice for Toll Roads*; and
- TxDOT ENV *SOU for Socioeconomic Resources*.

Environmental Documentation

The Environmental Consultant's community impacts specialist shall incorporate the determinations and findings resulting from the EJ analysis into the content of the environmental document. Standard language, such as definitions of federally-recognized EJ populations (specifically minorities and low-income) along with thresholds for interpreting the presence of

these populations, shall be included. Demographic descriptions of minority and low-income populations within the defined study areas shall be presented, including quantitative data analysis. Tables shall be included presenting the quantitative data collected such as census data, median household income, and poverty status. Identification of impacts, whether disproportionate or not, as well as benefits to minority and/or low-income individuals and communities shall be documented. Disproportionate and adverse impacts shall be addressed and appropriate mitigation options/commitments, including community outreach, shall be described.

Environmental documents for locally-funded projects shall include descriptions from the TxDOT *ENV SOU for Socioeconomic Resources*. The level of census data assessment for locally-funded projects shall reflect the project scale and shall typically be reported at the census tract level. The Environmental Consultant's community impacts specialist shall prepare a Technical Memorandum summarizing the EJ analysis for NTTA projects meeting the criteria for an EQ.

Environmental documents for federal/state funded projects shall compare and report census data at the lowest scale available, preferably block or block group. In addition, environmental documents for federal/state funded projects shall include an O&D analysis to present findings of potential user impacts. The proposed toll rate shall be based on best available information and included in the analysis. The electronic toll collection (ETC) system shall be defined and discussed as it applies to NTTA projects. The applicable methods of toll charge collection shall also be discussed. An explanation of payment methods shall be described, including ZipCash®, and conclude with a comparison of payment methods and their impacts to both low-income and non-low-income populations.

Attachments to the environmental document or Technical Memorandum shall include exhibits with locations of EJ and non-EJ Traffic Serial Zones, maps delineating census tract/block/block group boundaries, and O&D analysis data, as necessary.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for EJ analyses in both hard copy and electronic format: all quantitative/qualitative data utilized for the analyses not already disclosed in the environmental document including emails, memos, Web site printouts, phone record summaries, maps, etc.

4.5.3 Indirect and Cumulative Impacts

The NTTA shall address and consider direct, indirect, and cumulative impacts as established in the CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508). **Indirect and cumulative impacts analyses are required for all federal/state funded projects and for locally-funded projects requiring an EE. Indirect and cumulative impacts analyses are not required for locally-funded projects meeting the criteria for an EQ.**

Assessment Procedures

The indirect impacts analysis shall document impacts related to the project but which occur later in time and distance. Indirect impacts 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 and other natural systems, including ecosystems.

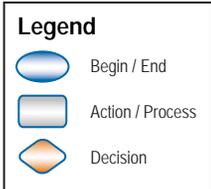
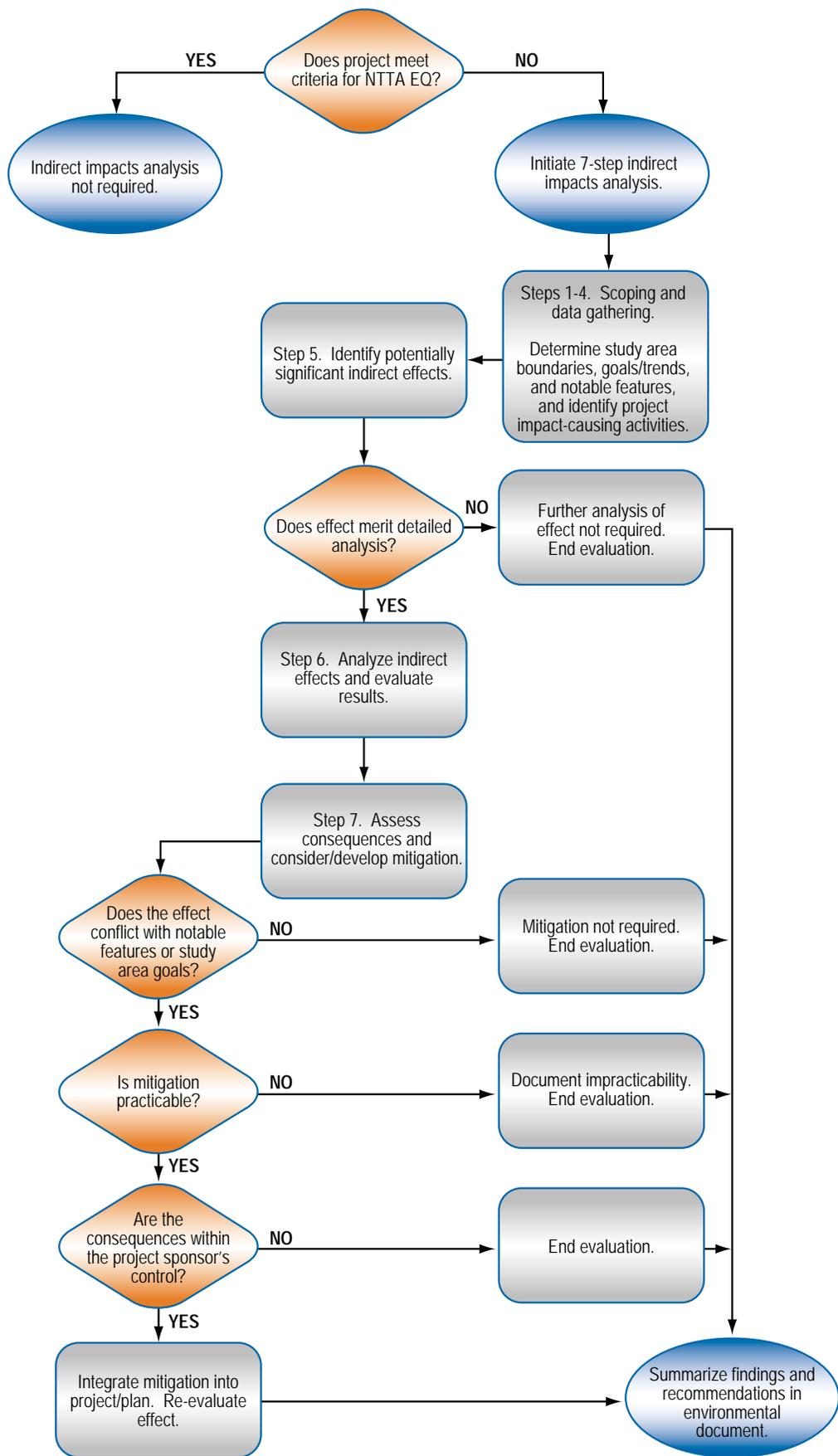
Cumulative impacts are the incremental impacts that the project's direct and indirect effects have on a resource in the context of the myriad of other past, present, and future effects on a resource from unrelated activities. The cumulative impacts analysis shall focus on: 1) those resources substantially impacted by the project; and 2) resources currently in poor or declining health or at risk even if the project impacts are relatively small (less than significant).

Federal/state funded projects requiring an EIS, an EA, or a CE for added capacity and locally-funded projects requiring an EE shall assess indirect and cumulative impacts. These projects shall include an analysis for both indirect and cumulative impacts. The content of each analysis shall follow its respective methodology.

Indirect Impacts Analysis

The Environmental Consultant shall follow the below seven-step framework for estimating indirect effects when evaluating impacts for federal/state funded NTTA projects (**Figure 4-8: Indirect Impacts Analysis**). These steps are discussed in greater detail in the *TxDOT Guidance on Preparing Indirect and Cumulative Impacts Analyses, revised June 2009*.

- **Step 1 - Scoping.**
Scoping is a process used to determine the extent of the analysis needed and to define the study area. Basically, scoping establishes the context for the indirect impacts analysis.
- **Step 2 - Identify the Study Area's Direction and Goals.**
Step 2 assembles information on the general trends and goals within the study area.
- **Step 3 - Inventory the Study Area's Notable Features.**
The primary objective of Step 3 is to inventory the base-line environmental conditions of the project area. This step involves three sub-steps: inventory ecosystem conditions, inventory socioeconomic conditions, and inventory notable features.
- **Step 4 - Identify Impact-Causing Activities of Proposed Action and Alternatives.**
Step 4 involves the identification and assessment of impacts that may come into conflict with the goals and features identified in Steps 2 and 3. Impact-causing activities involve the construction, operation, and maintenance of the proposed facility. The ten general categories of impact-causing activities identified in NCHRP Report 466, *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects*, must be addressed in Step 4.
- **Step 5 - Identify Potentially Significant Indirect Effects for Analysis.**
The objective of Step 5 is to compare the list of project impact-causing actions with the list of goals and notable features to explore potential cause-effect relationships and establish which effects are potentially substantial and merit subsequent detailed analysis. This step should clearly identify which effects may be and are not substantial, and the environmental document should discuss how and why this determination was made.
- **Step 6 - Analyze Indirect Effects and Evaluate Results.**
The objective of Step 6 is to assess the effects identified in the previous step by determining magnitude, probability of occurrence, timing and duration, and degree to which the effect can be controlled or mitigated to determine if those effects have the potential to be substantial.



Note: Source of 7-step analysis: TxDOT, 2009. Revised Guidance on Preparing Indirect and Cumulative Impact Analyses.

Indirect Impacts Analysis

Figure 4-8

- **Step 7 - Assess Consequences and Consider/Develop Mitigation (When Appropriate).** Once indirect impacts have been analyzed in Step 6, Step 7 must consider whether or not those impacts are acceptable. This relates to the criteria for whether or not impacts are substantial. It is also important to recognize that the perception of impacts plays a role in determining the magnitude of the impact and its relative importance. In general, mitigation should be considered for indirect impacts that:
 - conflict with study area goals;
 - could worsen the condition of a sensitive or vulnerable notable feature;
 - could delay or interfere with planned improvement of a notable feature;
 - could eliminate a valued or unique notable feature, or could render that notable feature ordinary; and
 - are inconsistent with applicable law.

Mitigation options should be developed in a manner similar to that used for direct impacts, and evaluated for practicality in the same way. Potential mitigation options for indirect effects may fall outside the jurisdiction or control of the sponsoring agency.

In addition to the indirect impacts analysis described above, an independent indirect land use impacts assessment, which shall be referenced throughout the indirect impacts analysis, shall be included as an appendix to the environmental document. The methodology for conducting the indirect land use impacts assessment shall follow the NCHRP Report 25-25, Task 22, *Forecasting Indirect Land Use Effects on Transportation Projects*. Of the six land use forecasting tools provided in the NCHRP Report 25-25 (Task 22), the “Planning Judgment” forecasting tool shall be utilized as the framework for the analysis.

The purpose of an indirect land use impacts assessment is to identify and analyze the potential for indirect land use impacts related to the proposed project. By definition, indirect land use impacts are the longer-run and wider-spread changes to development patterns and comprehensive plans that are induced by the transportation improvement. This analysis of indirect land use impacts is intended to describe how land use shall be different under two alternatives: one with the proposed transportation improvement and one without it.

Cumulative Impacts Analysis

The Environmental Consultant shall follow the below eight-step approach for estimating cumulative impacts when evaluating project impacts that utilize federal/state funds or for locally-funded projects meeting the criteria for an EE (**Figure 4-9: Cumulative Impacts Analysis**). The eight-step process is further described in the TxDOT *Guidance on Preparing Indirect and Cumulative Impact Analyses, revised June 2009*. By utilizing the eight steps, potential cumulative impacts of the past, present, and reasonably foreseeable actions to resources in the project area can be assessed as described below:

- **Step 1 - Identify the resources to consider in the analysis.**
The purpose of Step 1 is to identify which resources to consider in the analysis.
- **Step 2 - Define the study area for each resource.**
Step 2 considers the spatial and temporal boundaries of cumulative impacts. Each resource has its own resource study area (RSA) to best assess the impacts to that individual

resource. RSAs should be defined by professionals experienced in the study and analysis of each resource.

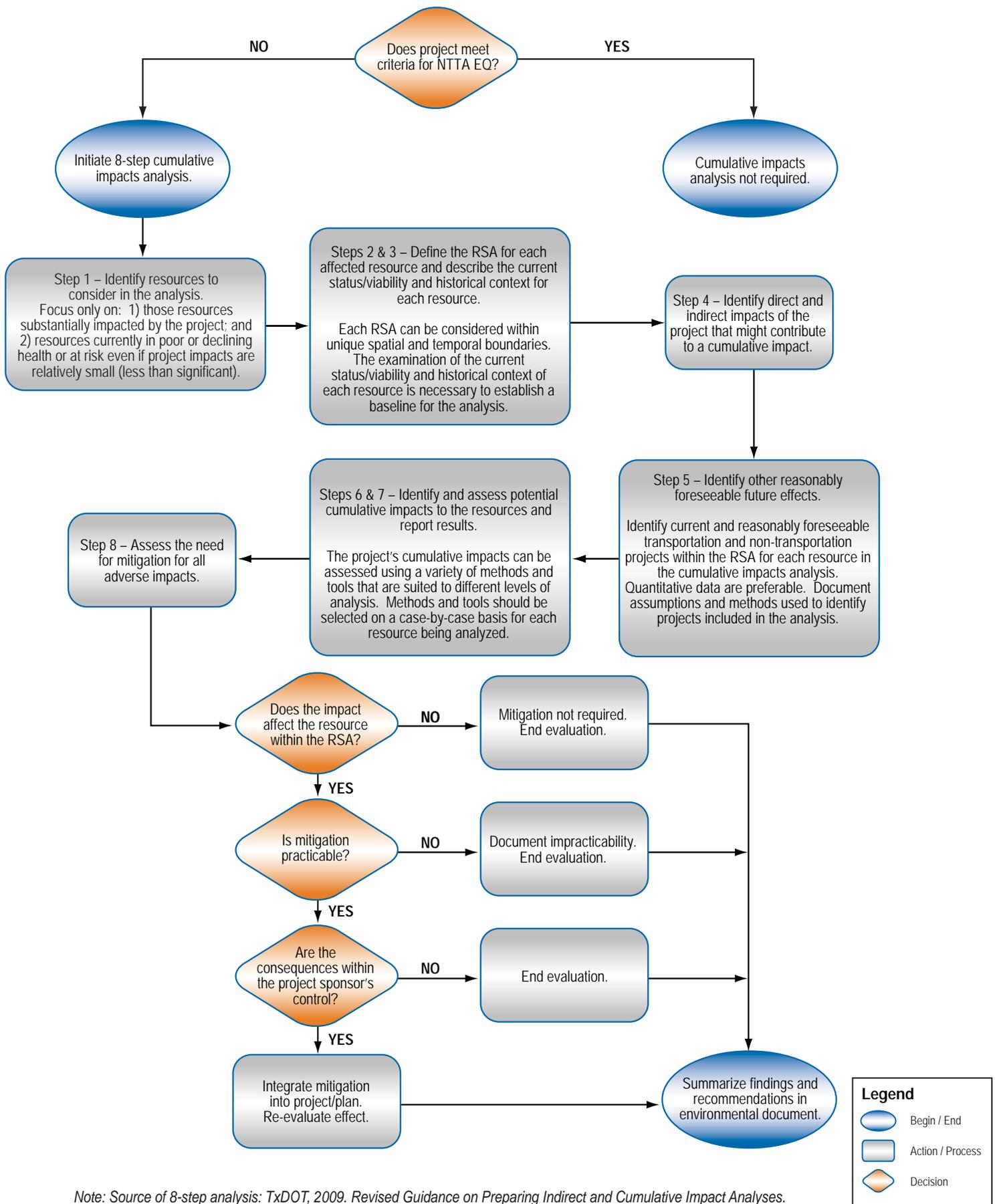
- **Step 3 - Describe the current status/viability and historical context for each resource.**
The examination of the current status/viability (health) and historical context of each resource is necessary to establish a baseline for determining the effects of the proposed action and other reasonably foreseeable actions on the resource.
- **Step 4 - Identify direct and indirect impacts of the project that might contribute to a cumulative impact.**
The analysis of cumulative impacts must look at the impacts of the proposed action in combination with the impacts of other past, present, or reasonably foreseeable actions within the RSAs. Identification of the direct and indirect impacts of the proposed action will also assist in determining the project's contribution to the cumulative impact on the resource.
- **Step 5 - Identify other reasonably foreseeable future effects.**
If available, quantitative impact data associated with current and reasonably foreseeable transportation and non-transportation projects within the RSA will be identified for each resource in the cumulative impacts analysis. The assumptions and methods used to identify these projects and associated impacts will be included in the analysis.
- **Step 6 - Identify and assess cumulative impacts.**
The proposed project's cumulative impacts can be assessed using a variety of methods and tools that are suited to different levels of analysis. Methods and tools shall be selected on a case-by-case basis for each resource being analyzed.
- **Step 7 - Report the results.**
The purpose of Step 7 is to summarize the results of the cumulative impacts analysis.
- **Step 8 - Assess the need for mitigation.**
Mitigation must be considered and discussed for any impacts disclosed in the environmental document, whether direct, indirect, or cumulative.

Environmental Documentation

The content of the environmental document shall incorporate the determinations and findings resulting from the assessments outlined above. Tables, exhibits, figures, and attachments supporting the content shall be referenced and included as appropriate. Supplemental attachments could include housing characteristics, building permits obtained, and school district enrollment, for example.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for indirect and cumulative impacts analyses in both hard copy and electronic format: all quantitative/qualitative data utilized for the various analyses not already disclosed in the environmental document including emails, memos, Web site printouts, phone record summaries, maps, etc.



Note: Source of 8-step analysis: TxDOT, 2009. Revised Guidance on Preparing Indirect and Cumulative Impact Analyses.

Cumulative Impacts Analysis

Figure 4-9

4.5.4 Public Lands

All NTTA projects shall assess impacts to public lands. **The procedures for assessing impacts to public lands vary depending on the funding type.**

Federal/state funded projects shall be assessed in accordance with Section 4(f), 23 CFR 774, FHWA Technical Advisory T 6640.8A, and Chapter 26 of the Texas Statutes of the Parks and Wildlife Code, as applicable.

Projects involving public lands which obtained LWCFAs funding assistance shall be assessed in accordance with Section 6(f), 36 CFR 59, regardless of funding type.

Locally-funded projects shall be assessed in accordance with Chapter 26 of the Texas Statutes of the Parks and Wildlife Code.

Assessment Procedures

All NTTA projects must prove that there is no prudent or feasible alternative to the proposed action and that the project includes all possible planning to minimize harm to publicly owned parks, recreation areas, wildlife or waterfowl refuges, publicly or privately owned historic properties, and some types of archeological sites. Section 4(f), Section 6(f), and/or Chapter 26 analyses and required public involvement activities shall be conducted and documentation shall be provided as appropriate.

Section 4(f) Evaluations

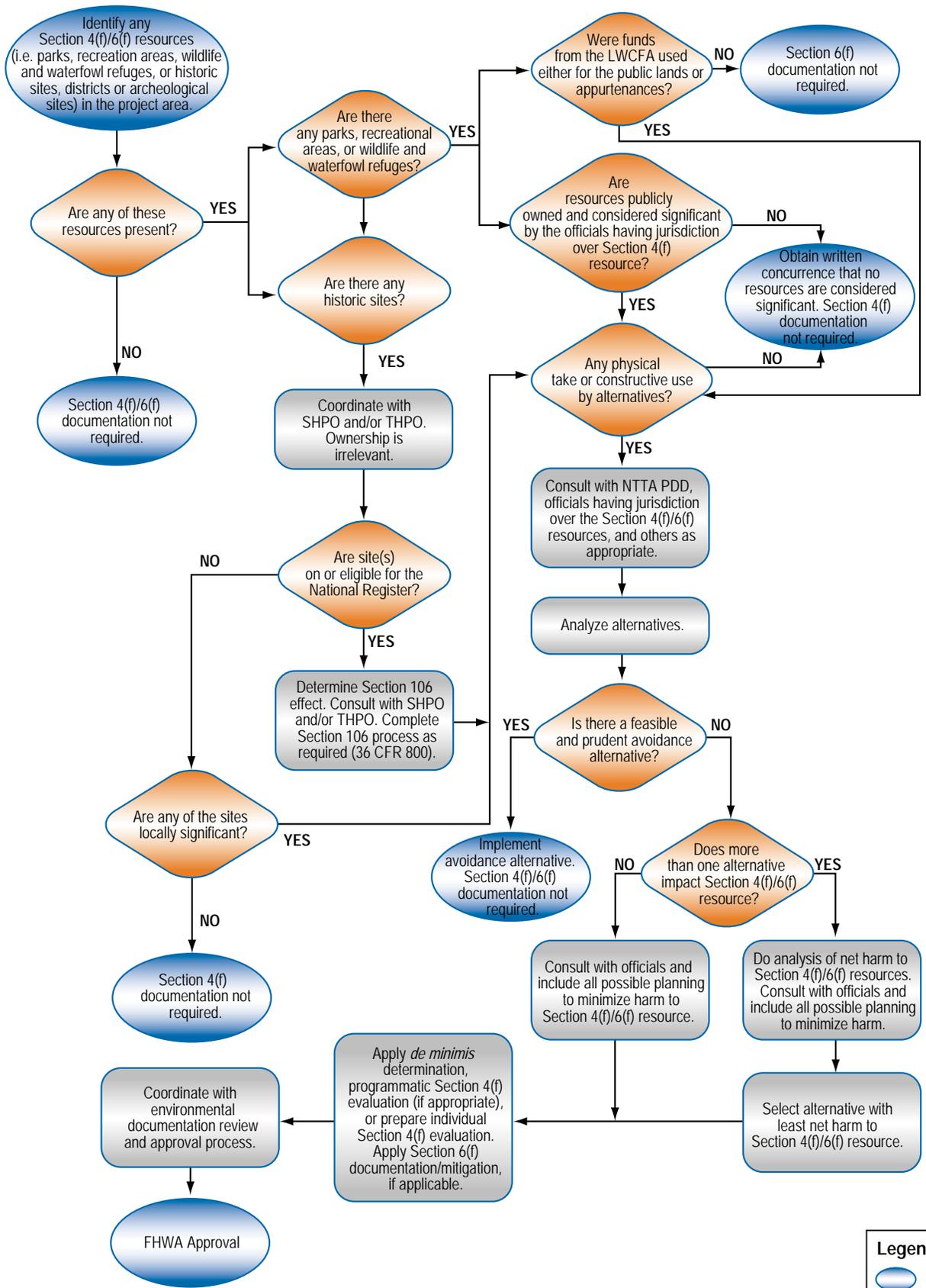
Section 4(f) evaluations and documentation requirements are explained in greater detail in the following laws and regulations: 23 USC 138 and 49 USC 303, 23 CFR 774, the T 6640.8A, Section 4(f) Policy Paper (March 1, 2005), and Guidance for *de minimis* Impacts to Section 4(f) Resources (December 13, 2005).

Section 4(f) analyses shall be conducted in accordance with the laws, regulations and guidance listed above and in close coordination with federal/state agencies as depicted in **Figure 4-10: Section 4(f)/6(f) Evaluation**. If Section 4(f) applies to an NTTA project, the Environmental Consultant shall coordinate with PDD Environmental Staff to determine Section 4(f) coordination procedures and documentation requirements.

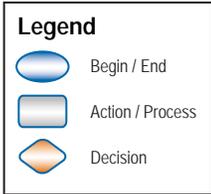
A Section 4(f) document shall be prepared when a project proposes to use resources protected by Section 4(f). The three levels of Section 4(f) documentation include an individual evaluation, a programmatic evaluation, and a *de minimis* determination.

▪ **Individual Section 4(f) Evaluations**

The individual Section 4(f) evaluation shall be developed and processed as a stand-alone document. The format and content for these evaluation documents are addressed in the FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing of Environmental and Section 4(f) Documents* (October 30, 1987). The FHWA Division Office or the federal Lands Highway Division approves all Section 4(f) evaluations. Prior to Division Office approval, all final individual Section 4(f) evaluations must undergo legal sufficiency review in accordance with 23 CFR 771.135(k).



Note: Section 4(f) only applies to projects utilizing federal/state funding. Section 6(f) applies to any projects with impacts to public lands or appurtenances which were funded by the LWCFA. Locally-funded projects with impacts to public lands shall adhere to Chapter 26 of the Texas Statutes of the Parks and Wildlife Code.



Section 4(f)/6(f) Evaluation

Figure 4-10

The intent of the Section 4(f) statute and the policy of the USDOT is to avoid the use of significant public parks, recreation areas, wildlife and waterfowl refuges and historic sites as part of a project, unless there is no feasible and prudent alternative to the use of such land. The first test under Section 4(f) is to determine which alternatives are feasible and prudent. An alternative is feasible if it is technically possible to design and build that alternative. The second part of the standard involves determining whether an alternative is prudent or not, which is more difficult to define.

In order to demonstrate that there is no feasible and prudent alternative to the use of Section 4(f) land, the evaluation shall address both location alternatives and design shifts that totally avoid the Section 4(f) land. Supporting information shall demonstrate that there are unique problems or unusual factors involved with the alternatives that avoid the use of Section 4(f) land, such as findings that these alternatives result in costs, environmental impacts, or community disruption of extraordinary magnitudes. Likewise, design shifts that cannot totally avoid use but that minimize the impact, shall also be employed unless they are not feasible and prudent.

The Section 4(f) evaluation shall address the need and purpose of the project. The need shall be sufficiently explained and be consistent with the need set forth in any concurrent NEPA documentation. The Section 4(f) evaluation may reference the need and purpose included in a NEPA document, without reiteration, when the evaluation is included as a chapter of the document. Any alternative that is determined to not meet the need of the project, including the no-build alternative, is not a feasible and prudent alternative. The evaluation shall include this analysis.

In addition to determining that there are no feasible and prudent alternatives to avoid the use of Section 4(f) resources, minimization and mitigation measures shall be determined through consultation with the official of the agency owning or administering the resource. Refer to **Chapter 5** of this Manual for additional information regarding Section 4(f) mitigation procedures.

In cases where impacts to Section 4(f) resources are considered minor, alternative documentation, such as programmatic evaluations and *de minimis* determinations, can be used in place of individual evaluations.

- **Programmatic Section 4(f) Evaluations**

As an alternative to preparing an individual Section 4(f) evaluation, the FHWA may, in certain circumstances, utilize a programmatic evaluation. Programmatic Section 4(f) evaluations streamline the documentation and approval process and amount of interagency coordination that is required for an individual Section 4(f) evaluation. Draft and final documents do not need to be prepared and FHWA legal sufficiency is not required. Interagency coordination is required only with the official(s) with jurisdiction and not with the USDO, the USDA, or the Department of Housing and Urban Development (HUD) – unless coordination with the USDO is required due to Section 6(f) requirements.

Under a programmatic Section 4(f) evaluation, certain conditions are laid out such that, if a project meets the conditions it will satisfy the requirements of Section 4(f) that there is no feasible and prudent alternative and that the project includes all possible planning to minimize harm. These conditions generally relate to the type of project, the severity of

impacts to Section 4(f) property, the evaluation of alternatives, the establishment of a procedure for minimizing harm to the Section 4(f) resource, adequate coordination with appropriate entities, and the NEPA class of action.

Programmatic Section 4(f) evaluations have certain elements in common: (1) they involve projects with typical and limited range of alternatives; and (2) the official having jurisdiction over the land agrees with the use evaluation and the proposed mitigation. To date, there are five programmatic evaluations that have been approved for use nationwide:

- Independent Walkway and Bikeways Construction Projects - This 1977 negative declaration applies to bikeway and/or walkway projects that require the use of land from Section 4(f) resources;
 - Historic Bridges - This evaluation sets forth the basis for approval that there are no feasible and prudent alternatives to the use of certain historic bridge structures to be replaced or rehabilitated with federal funds and that the projects include all possible planning to minimize harm resulting from such use;
 - Minor Involvements with Historic Sites - This programmatic evaluation has been prepared for projects that improve existing highways and use minor amounts of land (including non-historic improvements thereon) from historic sites that are adjacent to existing highways where the effect is determined not to be adverse;
 - Minor Involvements with Parks, Recreation Areas, and Waterfowl and Wildlife Refuges - This programmatic evaluation is applicable for projects that improve existing highways and use minor amounts of publicly owned parks, recreation lands, or wildlife and waterfowl refuges that are adjacent to existing highways; and
 - Net Benefits to a Section 4(f) Property - A “net benefit” evaluation is achieved when the transportation use, the measures to minimize harm, and the mitigation incorporated into the project results in an overall enhancement of the Section 4(f) property when compared to both the no-build or avoidance alternatives, and the present condition of the Section 4(f) property, considering the activities, features, and attributes that qualify the property for Section 4(f) protection.
- **De Minimis Determinations**
De minimis determinations can be sought for projects that will have no adverse effect on protected resources, thus the project results in a *de minimis* impact. The FHWA published a memo December 4, 2008, outlining the revised procedure for documenting and approving *de minimis* determinations as agreed upon by the FHWA and TxDOT. Under the revised procedure, preliminary written concurrence from the FHWA is not required. Instead, TxDOT ENV shall provide a *de minimis* project listing as part of the on-going monthly *de minimis* reporting. This process applies to proposed *de minimis* impacts to all Section 4(f) resources (parks and historic).

The SAFETEA-LU amendment to Section 4(f) requirements allows the USDOT to determine that certain uses of Section 4(f) land will have no adverse effect on the protected resource. When this is the case, and the responsible official(s) with jurisdiction over the resource agrees in writing, compliance with Section 4(f) is greatly simplified.

The *de minimis* impact determination is made after the lead agency undertakes any impact avoidance, minimization, and mitigation or enhancement measures for the protected

Section 4(f) resource. It is based on criteria that differ slightly for the different resource types. For parks, recreation areas, and wildlife and waterfowl refuges, the *de minimis* impact criteria are that the project will not adversely affect the activities, features, and attributes of the resource and that the official with jurisdiction over the resource agrees in writing. For historic sites, the *de minimis* impact criteria require a determination that the project will have “no adverse effect” or “no effect” on the resource and the concurrence with that determination by the THC in writing.

Section 6(f) Evaluations

Section 6(f) of the LWCFA established a land and water conservation fund to assist local, state, and federal agencies in meeting the demand for present and future outdoor recreation sites. When parkland has been acquired or developed with funds provided by the LWCFA and this land is required for federal/state funded or locally-funded transportation ROW, a Section 6(f) evaluation process shall be followed as shown in **Figure 4-10**.

Section 6(f) properties may be converted to transportation use only if the land is replaced with property, which is reasonably equivalent in usefulness and is of at least the same fair market value. Special coordination with the NPS and the USDOJ is necessary for parks where LWCFA funding has been utilized. To determine if Section 6(f) applies, NTTA and the Environmental Consultant shall coordinate with the TPWD to obtain a list of properties that have received LWCFA funds.

If it is determined that Section 6(f) applies to an NTTA project, the Environmental Consultant shall prepare a document encompassing the requirements of both Sections 4(f) and 6(f). The document shall include a summary of the Section 6(f) properties that are adjacent to the proposed project and identify any adjacent parks that are proposed to be impacted. A map of the adjacent properties shall be referenced, which would likely be a series of constraints maps with an aerial image as the base file that includes parks and potential Section 6(f) properties, in addition to Section 4(f) properties.

Chapter 26 Analyses

If federal/state funding is utilized, the Environmental Consultant shall contact PDD Environmental Staff, and the PDD shall coordinate with the appropriate local TxDOT District in order to complete necessary documentation and public involvement per Chapter 26 of the Texas Statutes of the Parks and Wildlife Code.

If only local funding is utilized and there is a proposed use or taking of any public land designated as a park, recreation area, scientific area, wildlife refuge, or historic site, and the public land has not been acquired or developed with funds provided by the LWCFA, Sections 4(f) and 6(f) do not apply; however, Chapter 26 of the Texas Statutes of the Parks and Wildlife Code shall be followed. The NTTA shall coordinate locally-funded projects with the TPWD. If Chapter 26 applies to an NTTA project, the Environmental Consultant shall contact PDD Environmental Staff to determine coordination and public hearing procedures.

Environmental Documentation

Environmental documentation for NTTA projects with proposed impacts to public lands shall include a summary of the adjacent Section 4(f)/6(f) properties, analyses, proposed impacts, mitigation, agency coordination, and Chapter 26 requirements, if applicable. Section 4(f)/6(f)

evaluation documentation shall also be attached as an appendix to the environmental document.

Supporting Information

The Environmental Consultant shall supply the following supporting information to NTTA for public lands evaluations in both hard copy and electronic format: a standard project email from the DSE confirming that no ROW will be needed from a public land property, a map showing the proposed ROW in relation to the property boundaries of any public lands properties adjacent to the project, all quantitative/qualitative data utilized in the analyses and any information obtained that was utilized to make a decision that was not presented in the documentation including emails, memos, Web site printouts, phone record summaries, mitigation plan alternatives, etc.

4.6 Other

Other regulations that protect environmental or other resources are listed below and may require coordination but are not as likely to require coordination for projects in the NTTA service area or are not required for projects that utilize only local funding. The Environmental Consultant shall determine the applicability of each regulation and if coordination and/or documentation is necessary before dismissing applicability for all NTTA projects.

Fish and Wildlife Coordination

The FWCA requires federal agencies to coordinate those projects that have a potential effect on fish and wildlife resources with the applicable federal and state resource agencies, to take action to prevent loss or damage to these resources, and to provide for the development and improvement of these resources.

A project shall be submitted to the USFWS and the TPWD for review under the FWCA if it involves work in any natural channel (whether perennial, intermittent, or ephemeral) impounding, diverting, or deepening a stream channel or other body of water; impacts newly disturbed areas; involves a change in wildlife habitat; and involves federal funds or federal permits. When a project is confined to existing, previously disturbed ROW, coordination under the FWCA is not required.

A statement summarizing that the FWCA is not required shall be included in the environmental document for federal/state funded projects. The Environmental Consultant shall coordinate with PDD Environmental Staff if coordination with the USFWS is necessary. Compliance with the FWCA is not required for projects utilizing only local funds.

Essential Fish Habitat

Although compliance with the MSFCMA is required for federal/state funded projects, the regulation does not apply to NTTA projects as the NTTA service area does not include estuarine habitat or waters with saltwater influence. A statement regarding EFH shall be included in NTTA environmental documents for federal/state funded projects and dismissed from further assessment.

Wild and Scenic Rivers

The NTTA service area does not include any rivers within the National Wild and Scenic Rivers System. A statement regarding wild and scenic rivers shall be included in NTTA environmental documents for federal/state funded projects and dismissed from further assessment.

Compliance with the Wild and Scenic Rivers Act is not required for projects utilizing only local funds.

Invasive Species and Beneficial Landscaping

EO 13112 on invasive species and the Executive Memorandum on beneficial landscaping shall be followed and appropriate language included in NTTA environmental documents for federal/state funded projects. Compliance with EO 13112 and the Executive Memorandum is not required for projects utilizing only local funds.

Farmland

The FPPA only applies to federal/state funded projects. Federal/state funded projects shall be assessed in order to determine whether or not they are subject to the FPPA. Projects considered exempt under the FPPA include those that require no additional ROW or require ROW that is developed, urbanized, or zoned for urban use. If compliance with the FPPA is required, the Environmental Consultant shall coordinate with PDD Environmental Staff and complete the Farmland Conversion Impact Rating Assessment (NRCS Form AD-1006). If additional action and/or coordination with the NRCS is required, the Environmental Consultant shall coordinate with PDD Environmental Staff regarding these efforts.

The FPPA applies to all projects that require additional ROW and that are planned for federal funding, except those which are specifically planned for national defense. Projects utilizing only local funds do not require compliance with the FPPA.

Local Tree Ordinances

Many municipalities have tree ordinances to protect existing trees within their jurisdictions. These ordinances provide guidance on the preservation of the existing trees and mitigation requirements for any trees proposed to be removed. The Environmental Consultant shall refer to the Texas Chapter International Society of Arboriculture for additional information regarding local tree ordinances.

Each municipality's city/town code in which an NTTA project is being developed shall be investigated to determine if a tree ordinance is applicable, and compliance with local tree ordinances shall be achieved whenever possible.

Airway-Highway Clearance

In accordance with 23 CFR 620.103, federal/state funded projects within 2 miles of an airport shall be examined to determine if there is a possibility for conflict and if coordination with the local airport and the FAA are required. Tollway features, such as overhead signage or lighting, must be designed not to penetrate the navigable airspace of airports within the project vicinity. Completion and approval of FAA form 7460-1 may be required to obtain necessary airway-highway clearance prior to construction.

NTTA federal/state funded projects shall be assessed for compliance with airway-highway clearance regulations if they are within the proximity of any of the 11 airports within the North Texas region. Although compliance with 23 CFR 620.103 and coordination with the FAA are not required for locally-funded projects, coordination with local airports is expected for these projects as well if airports are within the proposed project vicinity.

Visual Quality and Aesthetics

Visual quality is a measure of the degree that people like or dislike the visual character of those items that compose their environment. A Visual Impact Assessment (VIA) is a tool for assessing this degree of like or dislike. A VIA defines existing visual quality by identifying what visual resources in the natural, cultural, and highway environments already exist in the project corridor; what viewers see these resources; and what these viewers like and dislike about the resources that compose the existing scene.

NTTA projects do not require a VIA regardless of project funding sources; however, a VIA can be a very useful tool when assessing impacts to visual quality and aesthetics for transportation projects requiring an EIS. California, Minnesota, and Ohio DOTs have created procedures, policies, and guidance for visual quality and aesthetics assessment. The FHWA also has a VIA Manual. For additional information regarding visual quality and aesthetics assessment, please review the Visual Quality Management section of the NTTA Design Guidelines as well as the VIA sources listed as references in **Chapter 7** of this Manual.

5.0 Permits and Mitigation

The NTTA shall coordinate with the appropriate regulatory agencies to secure a permit/authorization and to coordinate mitigation for unavoidable impacts to regulated natural resources. The Environmental Consultant shall prepare the necessary permit applications and mitigation proposals for review and approval by PDD Environmental Staff. All coordination with and submittals to regulatory agencies associated with permitting and mitigation documentation shall be conducted via the PDD.

5.1 Permits

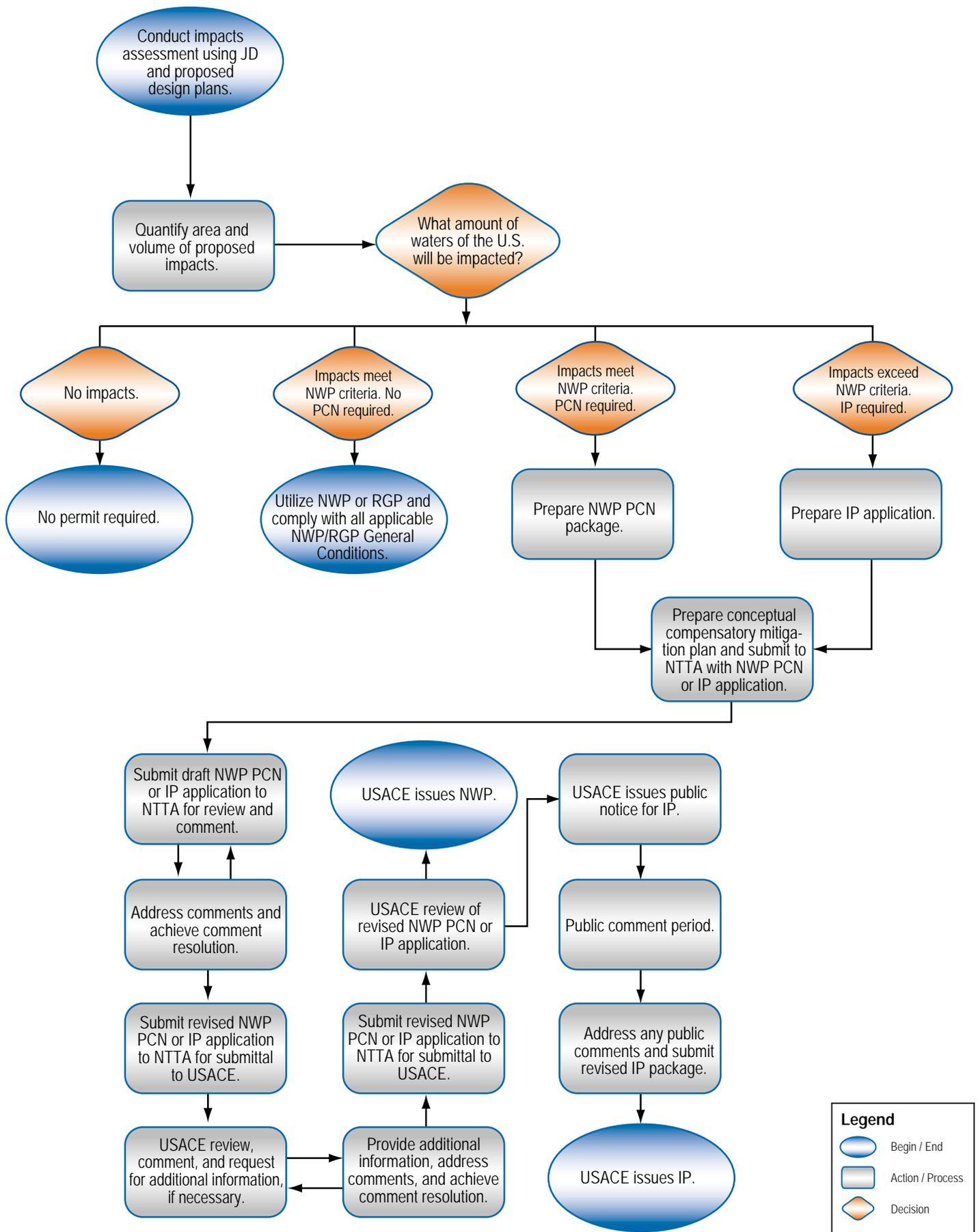
This section covers the following types of permits and/or approvals that apply to federal/state funded and/or locally-funded projects:

- Section 404 permits (waters of the U.S., including wetlands);
- Section 401 certifications (water quality);
- Section 9 and Section 10 permits (navigable waterways);
- Section 208 and Section 408 approvals (modification/alteration of USACE projects);
- Section 402 TPDES permits (storm water);
- CDC permits (Trinity River floodplain);
- Section 10(a) permits (threatened and endangered species);
- Marl, Sand, Gravel, Shell, or Mudshell (MSGSM) permits; and
- Texas Antiquities permits

The environmental permits discussed in this section include common permits required for transportation improvement projects. Additional permits may also be required on a project specific basis.

5.1.1 Section 404 Permits

Congress authorized the EPA and the USACE to issue permits for discharge of dredged or fill material into waters of the U.S., including wetlands, under Section 404 of the CWA. Because NTTA projects often include impacts to waters of the U.S., including wetlands, NTTA is required to comply with Section 404. Refer to **Figure 5-1: Waters of the U.S. - Section 404 Permitting** for a flow chart depicting the Section 404 permitting process. The Environmental Consultant team shall include a qualified wetland delineator, permitting specialist, and mitigation planner who have the experience described in **Chapter 2**.



5.1.1.1 Categories of Impacts

The degree of impact on waters of the U.S., including wetlands, shall determine the permitting activity, or type of permit required:

- **General Permits** - Project results in only minimal individual and cumulative environmental impacts.
- **Letter of Permission (LOP)** - Project results in minor impacts that do not have significant individual or cumulative impacts on environmental values and shall encounter no appreciable opposition.
- **Individual Permit (IP)** - Project results in more than minimal adverse impacts.

5.1.1.2 General Permits

General permits are not normally developed for an individual applicant, but cover activities the USACE has identified as being substantially similar in nature and causing only minimal individual and cumulative environmental impacts. General permits relieve the USACE's administrative burden for projects resulting in minor discharges and result in the avoidance of unnecessary duplication of regulatory control exercised by another federal, state, or local agency provided the impacts of the proposed action are minimal. These permits may cover activities in a limited geographic area (e.g., county or state), a particular region of the country (e.g., group of contiguous states), or the nation. Processing such permits closely parallels that for IPs, with public notice, opportunity for hearing, and detailed decision documentation.

General permits are activity-specific and are valid for 5 years from the date of issuance. In order to utilize a general permit, the particular activity must satisfy all terms and conditions of the specific general permit. More detailed information regarding general permits and the requisite criteria for utilizing them can be found on the USACE Fort Worth District Web site.

The USACE has three types of general permits: Programmatic General Permit (PGP), Regional General Permit (RGP), and Nationwide General Permit (NWP).

- **Programmatic General Permit**
A PGP is a type of general permit that is issued to avoid unnecessary duplication of regulatory control exercised by another federal, state, or local agency. With a PGP, a permit applicant generally must only apply to one agency rather than applying to both agencies for permits for the same work. PGPs are generally not applicable to transportation improvement projects.
- **Regional General Permit**
An RGP is a type of general permit that is issued regionally. RGPs contain provisions intended to protect the environment, including natural and cultural resources; however, compliance with the conditions for an RGP does not guarantee authorization of the work by an RGP. Work or structures that would have unacceptable impacts on the public interest are not authorized. Activities requiring USACE authorization that are not specifically authorized by an RGP are prohibited unless they are authorized by an NWP or an IP. RGPs are generally not applicable to transportation improvement projects.
- **Nationwide General Permit**
An NWP is a type of general permit that is issued nationally. NWPs are issued on a pre-discharge basis for minor activities with minimal impacts. The regulations that govern NWPs

are found in 33 CFR 330. Impacts to waters of the U.S., including wetlands, resulting from transportation improvement projects are typically authorized under an NWP or an IP, if impacts exceed NWP thresholds.

For all discharges proposed for authorization under any NWP in Dallas, Denton, and Tarrant counties that are within the study area of the May 1986 *Final Regional EIS, Trinity River and Tributaries*, the applicant shall meet the criteria and follow the guidelines specified in Section III of the ROD for the Regional EIS, including hydraulic impact requirements. These guidelines are available on the USACE Fort Worth District Web site.

Certain NWPs require a pre-construction notification (PCN), under NWP General Condition 27. The PCN details any proposed fill activities in waters of the U.S. that exceed PCN thresholds set in the NWP. Early resource agency coordination helps facilitate timely decisions regarding NWPs that require a PCN. PCNs shall be submitted to the USACE at least nine months prior to the proposed project letting date. It may be appropriate to submit a proposed mitigation plan with the PCN to expedite the application process. The USACE will consider proposed mitigation plans in determining whether the net adverse environmental effects of the proposed activity are minimal. Refer to attachment **MAN-14-A6** for the required contents of PCN packages and mitigation plans for submittal to the USACE.

Several NWPs may be used to permit transportation projects; however, the NWP that is utilized most frequently to authorize minor impacts to waters of the U.S., including wetlands, is NWP 14 (Linear Transportation Projects). NWP 14 authorizes activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, tollways, railways, trails, airport runways, and taxiways) in waters of the U.S. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 0.5 acre of waters of the U.S. (as of March 2007). The applicant must submit a PCN to the USACE prior to commencing construction if the loss of waters of the U.S. will exceed 0.1 acre or if there will be a discharge in a special aquatic site, including wetlands (as of March 2007). Any stream channel modification, including bank stabilization, must be limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project. NWP 14 also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Refer to the USACE Web site to determine the current impact thresholds and criteria for the use of NWP 14.

If it is uncertain or undetermined whether the impacts resulting from the proposed project can be authorized under an NWP, the Environmental Consultant's qualified wetland permitting specialist and PDD Environmental Staff shall coordinate with the USACE for a determination of permitting requirements. If the USACE finds the proposed activity complies with an NWP, they will notify the applicant and include any special conditions deemed necessary in the notification. If the USACE determines that the adverse effects of the proposed project are more than minimal, they will advise the applicant to either:

- Seek authorization under an IP; or
- Submit a mitigation proposal that would compensate for the adverse effects of the project.

Although uncommon, there may be some cases where the USACE PCN decision is to require an IP. Under this scenario, a project letting date could be delayed substantially; therefore, the Environmental Consultant and PDD Environmental Staff shall initiate coordination with the

USACE as early in the project development process as possible to determine permitting requirements for projects that involve unusual circumstances or where the permitting approach is in question.

5.1.1.3 Letter of Permission

An LOP is a type of permit issued through an abbreviated processing procedure that includes agency coordination (the USFWS, the TPWD, the EPA, and the TCEQ) and a public interest evaluation, but does not include the publishing of an individual public notice. An LOP serves to reduce the administrative procedures and to expedite permit decisions for cases that include only minor work in waters of the U.S. that do not have significant individual or cumulative environmental impacts and that would encounter no appreciable opposition. An LOP may include general conditions and appropriate case-specific provisions necessary to protect the environment, including natural and cultural resources. Work that does not comply with the provisions of an LOP may require authorization by a standard IP.

5.1.1.4 Individual Permit

An IP is issued for activities that have more than minimal adverse impacts to waters of the U.S., and evaluation of each permit application involves a thorough review of the potential environmental and socioeconomic effects of the proposed activity. The regulations that govern IPs and the contents of an IP application can be found in 33 CFR 325. The USACE issued *General Recommendations for Department of the Army Permit Submittals* and *Checklist for Applications for Individual Department of the Army Permits* to assist in the IP application process. In addition, refer to attachment **MAN-14-A6** for the contents of an IP application.

If impacts to jurisdictional waters do not qualify for authorization under the USACE General Permit program or cannot be authorized by an LOP, then an IP is required. From initial application to permit issuance, it could take 1 to 2 years to obtain an IP from the USACE. The process for obtaining an IP includes the following seven steps:

- **Step 1 - Pre-application consultation with the USACE.**

The pre-application consultation is an optional step that is intended to ensure that the permit applicant addresses the issues of concern to the USACE and natural resource agencies and to facilitate the review and processing of the permit application subsequent to the USACE receipt. Consultations may be formal or informal, depending on the size and nature of the proposed project and/or the degree of controversy associated with the project.

The Environmental Consultant's qualified wetland permitting specialist shall prepare and provide the following information for pre-application meetings with the USACE:

- measures taken to avoid or minimize impacts to jurisdictional areas
- presentation of project alternatives
- consideration of design changes
- plans, overlays, photographs, diagrams, etc.
- analysis of impacts to jurisdictional areas
- preliminary mitigation options
- proposed project schedule

While this step is optional, it may facilitate early resource agency coordination and help to expedite the permit application evaluation process and reduce the potential for objections to the proposed project by identifying and resolving issues of concern at an early stage. The applicant can then address alternatives to the proposed project and make appropriate modifications to the project plans prior to submittal of the permit application to the USACE.

- **Step 2 - Application completed for review/signature.**

The standard USACE application form (ENG Form 4345, OMB Approval No. 0710-003) shall be used by IP applicants. The Environmental Consultant's qualified wetland permitting specialist shall complete the draft IP application including:

- A complete description of the proposed activity including the location, purpose, and need for the proposed activity;
- Any necessary drawings, sketches, or plans (in 8.5 x 11-inch format) sufficient to support the issuance of a public notice;
- The location and dimensions of adjacent structures and a list of authorizations required by other federal, state, or local agencies of the work, including all approvals received or denials already made;
- A proposed mitigation plan; and
- Additional information determined in coordination with the USACE depending on the type of activity proposed.

- **Step 3 - Application processing and review.**

Upon receipt of an IP application, the USACE acknowledges receipt of the application and advises the applicant of the USACE project manager and the USACE assigned permit number to be used in all subsequent correspondence regarding the IP application. According to their regulations, the USACE determines whether the application is complete within 15 days after receipt of the application. If the IP application is complete, the USACE proceeds to issue a public notice. If the IP application is incomplete, the applicant will be advised of the additional information required to make the permit application complete.

- **Step 4 - Public notice/comment period.**

The USACE will issue a public notice for IP applications to inform interested parties of the proposed project and to solicit comments/information to be used by the USACE in their evaluation.

- **Step 5 - Review and response to public comments.**

All comments received in response to the public notice will be considered by the USACE in the review of the permit application. Comments are made part of the administrative record and may be provided to the applicant. Generally, the applicant is given 15 to 30 days to respond to public comments. During this time, applicants may elect to revise the application to resolve comments, meet with the commenter and negotiate a settlement, or request that the USACE render a decision on the application as submitted.

- **Step 6 - Public interest review.**

The decision to issue an IP is based on a comparison of the benefits of the project to its anticipated detriments, with consideration of protection as well as utilization of important resources.

- **Step 7 - Permit decision.**

The USACE will prepare a statement of findings which addresses the probable effect of the proposed work. This document will be included in the record prior to final action on the IP application. If an IP is warranted, the USACE District Engineer will determine any special conditions and duration that shall be incorporated into the IP. The IP will be sent to the applicant for review and signature, indicating acceptance of the conditions of the IP. The IP will not be valid until it is signed by the issuing USACE official.

5.1.1.5 Section 401 Water Quality Certification

Pursuant to Section 401 of the CWA, a water quality certification shall be obtained from the state before any activity that may result in a pollutant discharge into waters of the U.S. can be permitted by a federal agency. The certification states that the discharge shall comply with the applicable effluent limitations and water quality standards. The TCEQ issues Section 401 certifications in Texas.

For NWPs, the TCEQ provides a blanket Section 401 approval. For IPs, either a Section 401 Tier I Checklist or a Section 401 Tier II questionnaire must be completed and submitted to the TCEQ. A simplified certification process under Tier I is applicable to projects that affect less than 3 acres of waters/wetlands in the state and/or less than 1,500 linear feet of streams, the TCEQ has determined that incorporating certain BMPs and other requirements into the project shall sufficiently address water quality concerns. Any project that does not qualify for a Tier I review (i.e., the applicant elects not to incorporate Tier I criteria or prefers to use alternatives) will be considered a Tier II project. Tier II projects are subject to a certification review by the TCEQ.

If a project requires a Section 404 permit, Section 401 water quality certification compliance must be assessed. As part of Section 401 compliance, the Environmental Consultant shall consult with the DSE to determine the most appropriate BMPs to list in the environmental document and in the associated project plans.

5.1.2 Section 9 and Section 10 Permits

This section covers permits required under Sections 9 and 10 of the RHA of 1899.

Section 9

The USCG regulates the construction of bridges and causeways within or across navigable waterways as determined by that agency through navigable waterway permits, as per Section 9 of the RHA. The General Bridge Act of 1946 has more recent rules and regulations that direct the application process for Section 9 permits.

If the determination has been made that a Section 9 permit is needed, it shall be obtained using the information described in the USCG *Bridge Permit Application Guide*. This document provides information and assistance in obtaining Section 9 permits, Advanced Approval Category, and a Lighting Exemption Request (33 CFR 118.40(b)). The USACE shall be copied on USCG permit approval letters if they have an active file on the subject project. The NTTA is within the USCG Eighth District in New Orleans.

Section 10

The USACE regulates all work on structures in or affecting the course, condition, or capacity of navigable waters of the U.S. through navigable waterway permits, as per Section 10 of the RHA.

Prior to permitting, the appropriate authority (NTTA or TxDOT), must request a navigability determination as part of the pre-application process with the USACE. Navigability determinations (definitions vary between the regulations) also fall within the jurisdiction of the USACE for any permit associated with a bridge project requiring a Section 10 permit from the USACE.

Section 10 permits are obtained from the USACE and are authorized as either an NWP or an IP. Typical construction activities in navigable waters (as described in **Chapter 4**) that could require Section 10 permits include waterway modifications to achieve better bridge alignment, dredging, bank stabilization activities, spur dikes, dolphins, pilings, piers, and other structures not directly associated with a bridge that would affect a navigable waterway as defined by the USACE.

NTTA's role in obtaining a Section 10 navigable waterway permit is to:

- Initiate contact with the USACE early to determine if a permit is required. Navigability determinations for Section 10 permits must be made by the USACE;
- Include a discussion of anticipated impacts both permanent and temporary in environmental documentation; and
- Prepare permit applications, according to instructions in the USACE Regulatory Program Applicant Information pamphlet, for review and submission to TxDOT for federal/state funded projects. The NTTA shall coordinate directly with the USACE for locally-funded projects requiring a Section 10 permit.

Early coordination with the USCG/USACE during the project development process in requesting its determination of permitting requirements for all project activities within its jurisdiction can facilitate the permit evaluation process. The process of obtaining any Section 9 or Section 10 permit begins with early coordination by initiating contact with and submitting environmental documentation to the appropriate regulatory agencies.

5.1.3 Section 208 and Section 408 Approvals

This section covers approvals required for proposed modifications/alterations to existing USACE projects under 33 CFR 208.10 and 33 USC 408, in accordance with the Flood Control Act and the RHA. Proposed activities that may alter approved USACE completed projects can be approved under two different authorities. Relatively minor, low impact projects can be reviewed at the local level and approved by the USACE District Engineer in accordance with Section 208; whereas, larger projects deemed to have significant impacts require review and approval at the national level by the USACE Chief of Engineers in accordance with Section 408.

Section 208

The types of application submittals for Section 208 approval can vary based on the type and complexity of the project. The project sponsor/applicant and the local USACE district shall decide on what is necessary. The improvements shall be designed by standard engineering

practices, and the submittal may include an environmental document, design plans, and as-built plans for the proposed project.

Section 408

In accordance with the USACE November 2008 *Clarification Guidance on the Policy and Procedural Guidance for the Approval of Modifications and Alterations of Corps of Engineers Projects*, the Environmental Consultant's qualified wetland permitting specialist shall prepare the following items for inclusion in a Section 408 application submittal:

- A written request on behalf of NTTA for approval of the proposed project modification;
 - The letter shall include a detailed description of the proposed modification, the need and purpose for the modification, and an appropriate map or drawing.
- All necessary technical analyses. The list below is only a guide, provided by the USACE, for typical items that would routinely be expected, and is not intended to list every item that may be needed;
 - Geotechnical Evaluation (stability, under seepage, erosion control, vegetation, and materials usage/borrow/waste/transport/hauling, etc.);
 - Structural (bridges and related abutments, pier penetrations of levee embankments, diaphragm walls, other structural components integral to the project, gates or other operable features, etc.);
 - Hydraulic and Hydrology (changes in inflow, changes in water surface profiles and flow distribution, assessment of local and system wide resultant impacts, upstream and downstream impacts of the proposed alterations, impacts to existing floodplain management, etc.); and
 - Operation and Maintenance Requirements (applicant facilities, water control management plan, etc.).
- Real estate analysis;
- Discussion of residual risk;
- Administrative record for key decisions for related actions for applicants proposed modification such as environmental reports, judges' decisions, permits, etc.;
- Discussion of EO 11988 considerations; and
- Environmental protection compliance.

5.1.4 Section 402 TPDES Permits

Authorization under the TPDES program is in compliance with Section 402 of the CWA. The TPDES storm water permitting program is intended to improve the quality of the state's surface water including rivers, lakes, and streams by reducing pollution from non-point sources. The rules require selected industries to obtain TPDES storm water permits for all discharges associated with certain activities, including construction, that drain into public waters. In addition to the need for a CGP, NTTA toll road facilities are also subject to MS4 permitting requirements.

5.1.4.1 Construction General Permits

The NTTA shall ensure compliance with the CGP issued by the TCEQ under its TPDES permitting program for construction activities.

The CGP became effective on March 5, 2008 and authorizes the discharge of storm water associated with construction activities that result in the disturbance of 1 acre or more of total land area, including areas that are part of a larger common plan of development that will result in the disturbance of 1 acre or more of total land area. The CGP renews every 5 years and shall be referenced for changes upon renewal. The requirements of the CGP are complete once the earth-disturbing activities are completed, the area is finally stabilized, and appropriate coverage termination procedures described in Part II.F of the CGP have been executed.

Operators of construction activities requiring CGP coverage will meet the definition of either “primary” or “secondary” operators. A primary operator is the person or persons associated with the construction activity that has either of the following two responsibilities:

- Operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- Day-to-day operational control of those activities at a construction site which are necessary to ensure compliance with an SW3P for the site or other permit conditions.

A secondary operator is a person or persons whose operational control is limited to the employment of other operators or the ability to approve or disapprove changes to plans and specifications. For permitting requirements under the CGP, both NTTA and the Contractor shall normally meet the definition of a primary operator. Secondary operator authorization procedures shall not generally be applicable to NTTA construction projects.

For large construction activities (activities in which 5 or more acres will be disturbed including smaller construction activities which are part of a larger common plan of development that will ultimately disturb equal to or greater than 5 acres), the ECT shall verify that the Contractor has performed the following activities to obtain coverage under the CGP:

- Obtain a copy of the CGP;
- Develop SW3P in accordance with the CGP, Part III.F;
- Submit an NOI to the TCEQ and post a copy of all NOI pages at the site where it is safely and readily viewable by the public and authorities;
- Complete a Large Construction Site Notice (CSN) and post a copy of the CSN at the site where it is safely and readily viewable by the public and authorities;
- Provide a copy of the signed NOI to the operator of any MS4 receiving the discharge at least seven calendar days prior to commencing construction activities;
- Implement the SW3P prior to beginning construction activities;
- Perform scheduled inspections, together with maintenance and improvement actions, consisting of BMPs to prevent the discharge of pollutants; and
- Submit a Notice of Termination (NOT) to the TCEQ and a copy of the NOT to the operator of any MS4 receiving the discharge within 30 days after completion of all required activities and final stabilization of the site.

For small construction activities (activities which will result in land disturbance of equal to or greater than 1 acre and less than 5 acres of land), the ECT shall verify that the Contractor has performed the following activities to obtain coverage under the CGP:

- Obtain a copy of the CGP;
- Develop SW3P in accordance with the CGP, Part III.F;
- Complete and certify the appropriate Small CSN and post a copy of the CSN at the site where it is safely and readily viewable by the public and authorities;
- Provide a copy of the signed and certified CSN to the operator of any MS4 receiving the discharge at least two days prior to commencement of construction activities;
- Implement the SW3P prior to beginning construction activities;
- Perform scheduled inspections, together with maintenance and improvement actions, consisting of BMPs to prevent the discharge of pollutants; and
- Remove the CSN after completion of all required activities and final stabilization of the site. Complete the applicable portion of the CSN relating to removal, and submit a copy of the completed CSN to the operator of any MS4 receiving the discharge within 30 days.

Certification Requirements

The table below lists the documents requiring certification and individuals authorized to make certification.

Table 2: Documents Required to be Certified by the CGP

Document	Authorized NTTA Individual or Position (For Projects Managed)	Legal Basis
NOI	Executive Director Deputy Executive Director Assistant Executive Director of Project Delivery Director of Project Delivery	30 TAC 305.44, Signatories to Applications, requires a principal executive officer having responsibility of overall operations over a geographic unit to sign.
NOT		
Notice of Change (NOC)		
Low Rainfall Erosivity Waiver Application		
CSN		
Inspection report certifications	Construction Manager Project Resident Engineer Environmental Compliance Manager	30 TAC 305.128, Signatories to Reports, requires a position having responsibility for the overall operation of the facility activity or environmental matters.
All other reports and information requested by the TCEQ Executive Director.	Others that are specifically delegated by a person described in 30 TAC 305.44 in writing to the TCEQ.	

Storm Water Pollution Prevention Plan

The PDD ECM shall verify that an SW3P is prepared for all construction projects that will result in disturbance of 1 or more acres, or are part of a larger common plan of development in which 1 or more acres will be disturbed. The intent of the SW3P is to reduce pollutants in storm water discharges from the project site. The CGP sets forth the elements of the SW3P which, at a minimum, shall include the following:

- Detailed site or project description including areas that are the responsibility of the Contractor either within the ROW or within 1 mile of the ROW;
- Description of BMPs that will be used to minimize pollution in a runoff;
- Description of permanent storm water controls;
- Other required controls and BMPs;
- Documentation of compliance with approved state and local plans;
- Maintenance requirements of erosion and sediment control measures and other protective measures identified in the SW3P;
- Inspection of controls including, but not limited to, inspection of disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, and structural controls for evidence of, or the potential for, pollutants entering the drainage system;
- Identify and ensure the implementation of appropriate pollution prevention measures for all eligible non-storm water components of the discharge; and,
- Identify responsibilities of Secondary Operators and Primary Operators with control over construction plans and specifications, and responsibilities of Primary Operators with day-to-day operational control.

The above list is only a brief summary of the required contents of the SW3P. The CGP shall be referenced for the complete requirements of the SW3P.

The SW3P shall be approved by the PDD ECM prior to implementation. The SW3P shall be reviewed regularly by the ECT and kept current by noting any changes in the plan as required in the CGP. If any BMP does not function adequately, the SW3P shall be modified to correct the problem. The Construction Manager will monitor to verify that the Contractor repairs, replaces, or modifies all failing BMPs according to the revised SW3P. The ECT shall obtain the approval of the PDD ECM for any changes to the SW3P. The SW3P shall be maintained, together with any revisions, in the contract files at a specified location.

Notice of Intent

To obtain coverage under the CGP, operators of large construction activities or activities that are part of a larger common plan of development that will disturb equal to or greater than 5 acres shall submit a hard copy NOI to the TCEQ at least seven calendar days prior to commencing construction activities or submit an electronic NOI to the TCEQ prior to commencing construction activities. The PDD ECM shall verify that the NTTA submits the NOI only after the SW3P has been prepared. The PDD ECM shall verify that the NOI is signed by an authorized NTTA representative (Executive Director, Deputy Executive Director, AEDPD, or DPD) and contains the certification shown on the TCEQ NOI form. The ECT shall complete a CSN for large construction sites.

Prior to commencing construction activities, the Contractor shall post a copy of the NTTA NOI and CSN on site. The PDD ECM shall verify that NTTA submits a copy of the NOI to the operator of any MS4 receiving the discharge at least seven days prior to the commencement of construction activity. For small construction activities that do not require an NOI (that is, those involving total disturbed areas equal to or more than 1 acre but less than 5 acres), the PDD

ECM shall verify that an authorized NTTA representative (Executive Director, Deputy Executive Director, AEDPD, or DPD) signs and certifies the appropriate CSN. The PDD ECM shall verify that NTTA submitted a copy of the CSN to any MS4 operator receiving the discharge at least two days prior to commencing construction activity. The Contractor shall post the CSN at the site.

Contractor Involvement

The Contractor and, to the extent required by applicable law, each subcontractor whose functions include clearing, grubbing, grading, excavating, or any other earth-disturbing activity, shall obtain its own CGP authorization for projects involving total disturbed areas equal to or greater than 1 acre. The Contractor may share the NTTA SW3P if the Contractor has a TCEQ compliance history classification of average or high.

In certain contractual situations, the Contractor may also be responsible for developing a separate SW3P. When contractor facilities (Project Specific Locations [PSLs]) such as asphalt or concrete plants are within the ROW, the Contractor is responsible for preparing an SW3P for these operations and obtaining any applicable CGP authorization. This SW3P shall be reviewed by the PDD ECM prior to construction and operation of the facilities. The ECT shall obtain a copy of the Contractor prepared SW3P and the Contractor's CGP authorization number, when issued, and maintain the information with the SW3P.

The Contractor shall take responsibility for designated material sources identified in the contract and included in the NTTA SW3P. CGP authorization obtained by NTTA does not cover contractor facilities off the ROW. For these off-ROW facilities, the Contractor must prepare a separate SW3P and obtain the appropriate CGP authorization to construct the facility.

Inspections

The ECT shall conduct regular inspections of the construction site at least once every 14 calendar days and within 24 hours of the end of a rain event of 0.5 inches or greater, or once every seven calendar days regardless of rainfall. In the event of flooding or other uncontrollable situations which prohibit access to the site, inspections shall be conducted as soon as access is practicable. TxDOT Form 2118, *Construction Storm Water Pollution Prevention Plan Field Inspection and Maintenance Report*, or an alternate form containing all required information, shall be used to satisfy the CGP reporting requirements. The ECT shall verify that the erosion control measures and devices are working in accordance with the CGP. The ECT shall summarize the results of the inspection in a manner similar to that shown in TxDOT Form 2118 and verify that the report is signed by the person and in the manner outlined in 30 TAC 305.128.

The ECT shall include the following project areas in the inspection:

- Disturbed areas of the construction site that have not been finally stabilized;
 - Areas used for storage of materials that are exposed to precipitation;
 - Discharge locations;
 - Structural control for evidence of, or the potential for, pollutants entering the drainage system;
 - Sediment and erosion control measures identified in the SW3P to ensure correct operation;
- and

- Locations where vehicles enter or exit the site for evidence of off-site tracking.

The ECT shall also conduct inspections at least once every month:

- Where sites have been finally or temporarily stabilized; and
- Where runoff is unlikely due to winter conditions (for example, sites covered with snow, ice, or frozen ground exists).

The SW3P shall be modified to better control pollutants based on the results of inspections within seven calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, the implementation schedule shall be described in the SW3P. Changes shall be made before the next anticipated storm event when possible. If implementation before the next anticipated storm event is impracticable, changes shall be implemented as soon as practicable.

Notice of Termination

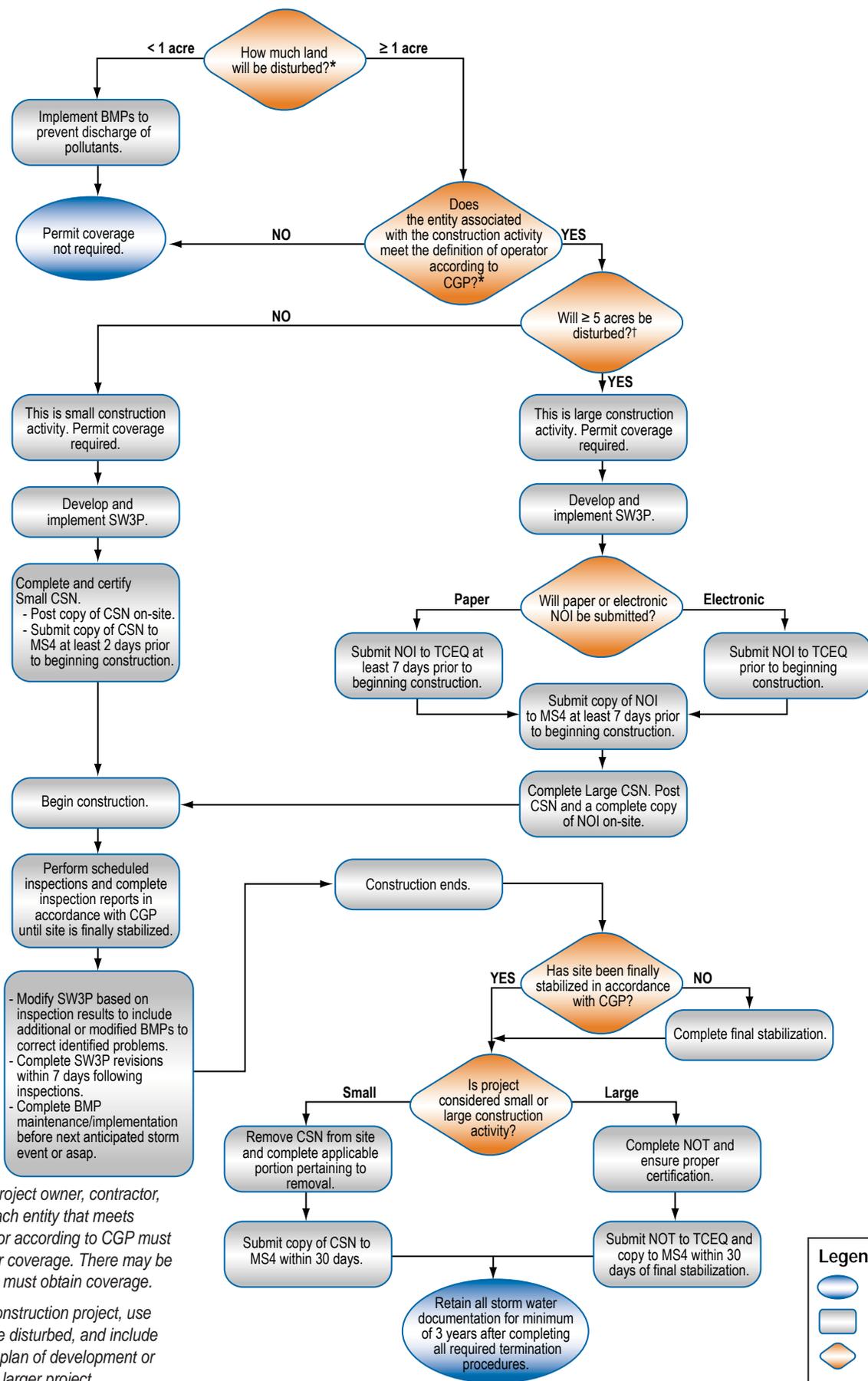
Operators of construction activities that are required to submit an NOI must also submit an NOT. The PDD ECM shall verify that the NOT is signed by an authorized NTTA representative (Executive Director, Deputy Executive Director, AEDPD, or DPD). The PDD ECM shall verify that NTTA submitted the NOT to the TCEQ after completion of the project and final stabilization of all disturbed areas in accordance with the CGP. Additionally, the PDD ECM shall verify that NTTA submitted a copy of the NOT to the operator of any MS4 receiving the discharge within 30 days.

For small construction activities that do not require an NOI, the ECT shall remove the NTTA CSN from the site and complete the applicable portion relating to removal after completion of the project and final stabilization of all disturbed areas in accordance with CGP. The ECT shall provide a copy of the complete CSN to the PDD ECM prior to submitting a copy of the completed CSN to the operator of any MS4 receiving the discharge within 30 days of final stabilization.

The ECT shall provide all storm water documentation to the PDD ECM. All storm water documentation shall be retained for a minimum of 3 years after completing all required coverage termination procedures.

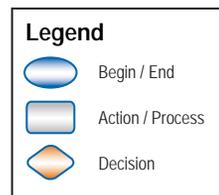
In accordance with NTTA QMS procedure **ENV-01**, where NTTA does not assign an ECT, the Construction Manager shall be responsible for ECT processes provided in this document. In the event that environmental specialist services may be required, the Construction Manager shall coordinate with NTTA to obtain such services.

Refer to **Figure 5-2: Storm Water Permitting** for a flow chart depicting the storm water permitting process and to NTTA QMS procedure **ENV-01**.



* An entity may be the project owner, contractor, sub-contractor, etc. Each entity that meets the definition of operator according to CGP must independently apply for coverage. There may be multiple operators who must obtain coverage.

† To determine size of construction project, use size of entire area to be disturbed, and include size of larger common plan of development or sale if project is part of larger project.



Storm Water Permitting

Figure 5-2

5.1.4.2 Phase I MS4 Permits

The municipal storm water portion of the TPDES program regulates discharges from MS4s in cities with populations over 100,000. NTTA storm sewers fall under these regulations. To comply with the TPDES municipal storm water regulations, NTTA has obtained the necessary Phase I MS4 permit. TPDES rules also require the development and implementation of a Storm Water Management Program (SWMP) that includes structural and non-structural BMPs for control of storm water pollution. NTTA has developed an SWMP and is actively implementing and maintaining the BMPs identified in the document; therefore, it is not necessary for the Environmental Consultant's storm water pollution prevention specialist or Contractor to obtain an MS4 permit on a project specific basis. The PDD ECM shall verify that the completed project is added to the MS4 permit.

5.1.5 Corridor Development Certificate Permits

The CDC process aims to stabilize flood risk along the Trinity River, in response to the USACE Trinity River and Tributaries Regional EIS and ROD. The CDC process does not prohibit floodplain development, but ensures that any development that does occur within the floodplain will not raise flood water levels or reduce flood storage capacity.

A CDC permit is required for activities within a specific area of the Trinity River floodplain called the Regulatory Zone, which is similar to the 100-year floodplain. The Corridor Manager/Project Manager, the DSE, and the PDD ECM shall work together to ensure that a CDC permit is obtained if required.

Any public or private development within the Regulatory Zone shall obtain a CDC permit prior to the start of any development activity, unless specifically exempted. Development activity includes, but is not limited to, filling, grading, paving, and dredging, among other activities. Additional information regarding the CDC process can be obtained from the local floodplain administrator. Projects that fall within the Regulatory Zone shall meet common permitting criteria to ensure that the projects do not raise the water level and exacerbate flooding.

These common permit criteria include:

- No rise in the 100-year flood elevation;
- A maximum allowable loss of valley storage in the 100-year floodplain and Standard Project Flood discharges of 0% and 5%, respectively ;
- No increases in erosive water velocity, on-site or off-site; and
- Equal conveyance reductions on both sides of the channel incorporated into hydraulic modeling.

The material included in the CDC application shall demonstrate, through submission of appropriate hydraulic data, that the above criteria have been met. A submittal shall include the following information to the local floodplain/CDC administrator:

- Standard CDC Form Parts 1 and 2;
- Hydraulic modeling printouts and plots of cross-sections and water surface elevation profiles from the USACE Hydraulic Engineering Center River Analysis System (HEC-RAS); and
- Location map, general site plan, and detailed site plan.

The local floodplain/CDC administrator will forward the application to the USACE for technical review and to each of the participating entities (Arlington, Carrollton, Coppel, Dallas, Farmers Branch, Fort Worth, Grand Prairie, Irving, Lewisville, Dallas County, and Tarrant County) in the Trinity River Corridor for review and comment. Each individual city and county makes the final development decisions.

Further information and guidance with regard to the Trinity River CDC permit can be found on the NCTCOG Web site.

5.1.6 Section 10(a) Permits

Section 10(a) of the ESA requires a permit whenever a “take” (i.e. harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species) is likely to occur during a proposed project, regardless of project funding sources. The Environmental Consultant’s qualified wildlife biologist and Lead Environmental Planner shall be responsible for coordinating and preparing the necessary documentation to obtain a Section 10(a) permit if required. Any actions pursuant to obtaining such a permit must first be coordinated with PDD Environmental Staff.

Phases of the Section 10(a) permit process consist of the following:

- A habitat conservation plan (HCP) is developed by the applicant with technical assistance from the USFWS. This phase ends with the submittal of the complete application package, which consists of a permit application form, fee (if required), a completed HCP, a draft environmental document, and possibly an implementation agreement;
- The formal permit-processing phase typically includes the review of the application package, an announcement in the *Federal Register* and a determination of whether or not the application meets ESA criteria; and
- The HCP is implemented and monitoring takes place.

For more information on the Section 10(a) permit process, refer to the *Habitat Conservation Planning Handbook*, located on the USFWS Web site. For more information regarding the ESA and related procedures, refer to **Chapter 4** of this Manual.

5.1.7 Marl, Sand, Gravel, Shell, or Mudshell Permits

An MSGSM permit may be required from the TPWD (Chapter 86, Subtitle F – TPWD Code) for locally-funded projects. Under this regulation, no person may disturb or take marl, sand, gravel, shell, or mudshell within waters regulated by the state. The MSGSM permit is also required for the operation of equipment or the disturbance of stream or river beds except where necessary for navigation or dredging. The TPWD requires this permit if a project would disturb state-owned streambeds of perennial-flowing water bodies or tributaries greater than 30 feet in width between the banks regardless of flow. TxDOT maintains a blanket MSGSM permit; therefore, federal/state funded projects do not require separate, site specific MSGSM permits.

5.1.8 Texas Antiquities Permits

A TAP shall be obtained for all projects requiring field investigations to evaluate or mitigate effects on archeological sites. All field investigations performed by consultants working on behalf of NTTA must be conducted under a TAP issued by the THC. If a potential for

archeological resources is found and the THC concurs that further investigations are necessary, the Environmental Consultant's qualified archeologist shall prepare a TAP application.

The TAP application shall contain information including:

- **General Information** - property type and location, owner (controlling agency) information, project sponsor information (if different from owner);
- **Project Information** - principal investigator, project description, curation and report, land owner's certification, sponsor's certification, and investigator's certification; and
- **Scope of work/research design methodology.**

The process to obtain a TAP from the THC is as follows:

- The Environmental Consultant's qualified archeologist shall prepare the draft TAP application and submit to the NTTA for review.
- The TAP shall be reviewed by NTTA and all comments shall be resolved before the TAP is submitted to the THC.
- The NTTA shall submit the TAP directly to the THC for locally-funded projects or to TxDOT ENV for processing with the THC for federal/state funded projects.
- The THC shall review and approve the TAP application and issue the TAP with a permit number.
- After the TAP is obtained, the archeology pedestrian survey and all field work may commence.

5.2 Mitigation

The project development process includes steps to mitigate for impacts to the natural environment. The primary form of mitigation is the avoidance of impacts to the resources. If adverse impacts cannot be avoided, the secondary mitigation goal is to minimize the impacts to the resources as much as feasible. Finally, compensatory mitigation shall be considered for unavoidable impacts to the resources. Compensatory mitigation involves, creating, repairing, restoring, rehabilitating, and in some cases enhancing and/or preserving a natural resource for the purpose of compensating for environmental losses. Many environmental resources impacted by transportation projects have regulatory mitigation requirements in place. The following section discusses mitigation procedures for each resource.

5.2.1 Waters of the U.S., Including Wetlands

A mitigation plan is required for all USACE IP applications and is typically required for most NWP PCNs on projects that would result in permanent impacts to jurisdictional waters and/or wetlands. Mitigation plans shall address avoidance, minimization, and where necessary, compensation for remaining adverse impacts to waters of the U.S. Refer to attachment **MAN-14-A6** for the content of a mitigation plan. Conceptual mitigation planning shall start after the PJD and impacts assessment have occurred. The following is a list of mitigation requirements for impacts to waters of the U.S.:

- The Environmental Consultant's qualified wetland mitigation planner shall coordinate with the Corridor Manager/Project Manager and DSEs to ensure that impacts to waters of the U.S. are avoided and minimized where practicable;

- Avoidance and minimization efforts shall be documented throughout the design process for inclusion in the compensatory mitigation plan;
- Compensatory mitigation shall normally be proposed when impacts to waters of the U.S. exceed 0.10 acre or when there are any impacts to wetlands;
- Preference shall be given to the use of a mitigation bank to the maximum extent practicable in accordance with all applicable federal laws and regulations;
- The compensatory mitigation plan shall follow the guidelines and format provided in *Mitigation and the Section 404 Regulatory Program* (Draft – dated May 28, 2002) and *Compensatory Mitigation for Losses of Aquatic Resources* (33 CFR 332 and 40 CFR 230); and
- The Environmental Consultant's qualified wetland mitigation planner and PDD Environmental Staff shall coordinate the compensatory mitigation plan with the USACE and other appropriate agencies (e.g., the EPA, the USFWS, the TCEQ, and the TPWD).
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

Preparation and coordination of a mitigation plan can take three months to more than a year depending upon the project; however, the coordination period can run concurrently with other IP application coordination efforts. It is recommended that the mitigation plan be submitted at the same time as the NWP PCN or IP application. Additional mitigation guidance regarding impacts to waters of the U.S., including wetlands, can be found at the USACE Fort Worth District Web site.

5.2.2 Storm Water

As detailed in **Chapter 4** of this Manual, all NTTA projects shall be assessed for compliance with the CGP under provisions of Section 402 of the CWA. Storm water mitigation is primarily accomplished through complying with the CGP. The following is a list of mitigation requirements for impacts to storm water:

- If the project disturbs more than 1 acre, the PDD ECM shall ensure that an SW3P compliant with the CGP is prepared and in place prior to initiation of construction;
- The SW3P shall utilize temporary and permanent control measures to minimize sediment in storm water discharges;
- The ECT shall conduct inspections to ensure that temporary and permanent control measures are working in accordance with specifications and the CGP; and
- Discharge notification documentation shall be submitted and posted onsite as required by the CGP.
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

5.2.3 Floodplains

The NFIP was established by the NFIA of 1968 and mandated to reduce flood losses by requiring local municipalities to adopt land use and control measures within designated floodplains. All construction within 100-year floodplains, including the placement of fill material

and/or structures for the construction of NTTA facilities, must adhere to FEMA NFIP regulations and local requirements. The following activities must occur for ensuring compliance with requirements for floodplain mitigation:

- The DSE shall coordinate with the Corridor Manager/Project Manager in determining the need for a floodplain permit for the project;
- The DSE shall contact the local floodplain administrator to confirm local floodplain permitting requirements, identify any conflicts, and to discuss the need for a map revision;
- The DSE shall acquire all current detailed data from FEMA which includes: the Flood Insurance Study, active Conditional Letter of Map Revision (CLOMR), Letter of Map Revision (LOMR), hydrologic analysis, hydraulic analysis, and any other documents pertaining to the specified project area;
- The DSE must provide a hydrologic and hydraulic analysis determining the adverse impact caused by the proposed construction within the floodplain. The calculation methods and software used for the analysis shall comply with FEMA and local municipal requirements;
- If revisions are required within the floodplain, floodway, and/or flood elevations, a CLOMR and LOMR would be required. The DSE shall coordinate with the local floodplain administrator to discuss the permit procedures and complete applicable forms for obtaining the permit; and
- Floodplain mitigation, or valley storage replacement, for authorized floodplain fill activities is accomplished through compliance with the floodplain fill permit issued by the local city government in which the NTTA facility shall be located and compliance with any FEMA requirements. The DSE and Construction Manager are jointly responsible for compliance with the floodplain fill permit and associated mitigation requirements. Mitigation typically consists of providing an equivalent floodplain storage area or flood attenuating feature (i.e. floodwater detention/retention area) nearby the affected floodplain area that shall be impacted by the proposed project.
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

5.2.4 Vegetation and Wildlife

In accordance with the MOA between TxDOT and the TPWD, habitat mitigation shall occur for federal/state funded projects at the discretion of TxDOT. The NTTA shall consider habitat mitigation in a manner consistent with the TxDOT/TPWD MOA for locally-funded projects. Habitats given consideration for mitigation of non-regulated habitats during project planning include:

- Habitat for federal candidate species (impacted by the project) if mitigation would assist in the prevention of the listing of the species;
- Rare vegetation series (S1, S2, or S3) that also locally provide habitat for a state-listed species;
- All vegetation communities listed as S1 or S2 regardless of whether or not the series in question provide habitat for state-listed species;
- Bottomland hardwoods;
- Native prairies;

- Riparian sites; and
- Any other habitat feature considered to be locally important to TxDOT and/or the NTTA.

A proposed project that will impact vegetation and/or wildlife identified above shall adhere to the following procedures:

- During the preparation of the environmental document, the PDD Lead Environmental Planner and the Environmental Consultant shall initiate coordination with TxDOT and the TPWD for federal/state funded projects. For locally-funded projects, the PDD Lead Environmental Planner and the Consultant shall initiate coordination with the TPWD Wildlife Habitat Assessment Program.
- The PDD Lead Environmental Planner and the Environmental Consultant shall coordinate with TxDOT and/or the TPWD to determine appropriate mitigation on a project by project basis if the proposed project will impact habitats given consideration for non-regulatory mitigation as per the MOA between TxDOT and TPWD.
- The PDD Lead Environmental Planner and the Environmental Consultant shall document and maintain all coordination through reports, letters, emails, memorandums, or telephone reports.
- Coordination and mitigation can normally be completed during the preparation of the environmental document but shall not delay project clearance as the coordination and mitigation may be completed after the contract for the project is awarded.
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

As a standard mitigation measure on all projects to ensure compliance with state and federal regulations, the ECT shall conduct a brief field reconnaissance prior to ROW clearing activities to verify that no federal or state threatened or endangered species are present within the work area. If species are present, work shall cease at that location and the ECT and the PDD ECM shall initiate coordination with the TPWD for state-listed species or with the USFWS for federally-listed species. Furthermore, if construction or clearing is to take place during the nesting season, which could extend from March through August depending on the species, the ECT shall investigate the area for active nests prior to the commencement of work. If any active nests are found, the ECT Leader shall contact the local USFWS biologist to determine an appropriate plan of action.

5.2.5 Historic Resources

If historic resources eligible for or listed on the NRHP are known to exist or are discovered within a proposed project impact area, and if they cannot be avoided or if the proposed design cannot be modified to sufficiently minimize the impacts, the following mitigation procedures shall apply:

- PDD Environmental Staff and the Environmental Consultant's qualified historian shall coordinate with the THC and TxDOT (for federal/state funded projects) to discuss the determination associated with the Intensive Survey.
- If mitigation is required, coordination shall be initiated among PDD Environmental Staff, the SHPO, TxDOT ENV (for federal/state funded projects), and all other regulatory agencies or

concerned parties involved with the project to discuss appropriate methods of mitigation for the project.

- The appropriate mitigation shall meet the satisfaction of NTTA, the SHPO, TxDOT ENV (if applicable), and all other regulatory agencies or concerned parties involved in the project.
- The Environmental Consultant's qualified historian shall develop a draft Mitigation Agreement detailing the agreed upon mitigation. The Mitigation Agreement shall be signed by NTTA, the THC, TxDOT (if applicable), and all other regulatory agencies or concerned parties involved in the project.
- The mitigation commitments shall be completed in accordance with the executed Mitigation Agreement.
- The THC shall concur in writing that all mitigation commitments have been satisfied.
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

Several alternatives for historic resources mitigation may be feasible including relocation, reconstruction, partial recovery (salvage), and/or documentation. Appropriate mitigation actions are project specific. At the time of the preparation of this Manual, Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) documentation were being discouraged by the SHPO in preference of other types of mitigation.

5.2.6 Archeological Resources

If archeological deposits determined eligible for the NRHP are known to exist or are discovered within a proposed project impact area, and if they cannot be avoided or if the proposed design cannot be modified to sufficiently minimize the impacts, the following procedures shall apply:

- A qualified archeologist from the Environmental Consultant team or PDD Resource Pool shall prepare a data recovery plan for review by the PDD Lead Environmental Planner and Environmental Manager;
- The Lead Environmental Planner shall ensure the data recovery plan is provided to NTTA and TxDOT and shall monitor TxDOT coordination with the SHPO to obtain data recovery plan approval for federal/state funded projects;
- A qualified archeologist shall excavate, analyze, catalog, and curate the archeological site;
- A qualified archeologist shall prepare a report of publication quality documenting the findings of the excavation;
- PDD Environmental Staff shall review the report and submit it to TxDOT for review and submittal to the THC for federal/state funded projects;
- PDD Environmental Staff shall review the report and submit it to the THC for locally-funded projects; and
- PDD Environmental Staff, the Environmental Consultant, and the qualified archeologist shall coordinate with NTTA, TxDOT, and the SHPO to determine the appropriate mitigation (e.g., publication quality reports, creation of interactive displays of the artifacts for public use, etc.).
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

Several types of mitigation may be feasible including avoidance, data recovery, partial recovery, and/or burial under fill. Appropriate mitigation actions are project specific and shall be determined through coordination with the Environmental Consultant, PDD Environmental Staff, and the appropriate agency (i.e., THC, SHPO, TxDOT, etc.).

5.2.7 Traffic Noise

If it is determined that the project causes a noise impact, the NTTA shall consider noise abatement measures and the following procedures shall apply:

- The Environmental Consultant's qualified traffic noise analyst shall analyze noise abatement measures (e.g., traffic management, alteration of alignment, acquisition of buffer zones, and construction of noise walls) for inclusion in the project;
- The Environmental Consultant's qualified traffic noise analyst shall incorporate noise abatement measure(s) into the project if it is both feasible (reduces noise by at least 5 A-weighted decibels [dBA]) and reasonable (cost does not exceed \$25,000 per benefited receiver);
- The noise abatement measure(s) determined during the preliminary noise analysis shall not be considered final until completion of final design, utility evaluation and the polling of the adjacent property owners;
- The Environmental Consultant's qualified traffic noise analyst shall conduct a re-evaluation of the noise analysis if substantial design and/or land use changes occur after completion of the original noise analysis;
- The NTTA shall build a noise wall if the majority (over 50%) of the property owners adjacent to the proposed noise wall votes in favor of the barrier;
- The Environmental Consultant's qualified traffic noise analyst and the PDD Lead Environmental Planner shall notify the owners of the properties directly adjacent to the proposed noise walls in writing of the proposal to construct noise walls;
- The notification shall include a survey, questionnaire, or ballot requesting their opinion; an informational pamphlet on noise walls; an invitation to attend a noise workshop (as necessary); any available comments from tenants; and, any proposed project changes/updates (as necessary); and
- If it is determined that multiple noise walls are proposed that could affect numerous adjacent property owners, the NTTA and the Environmental Consultant shall conduct a noise workshop to provide general information on the understanding of traffic noise, the results of the traffic noise analysis, the proposed noise impacts, and proposed abatement measures, as applicable.
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

5.2.8 Public Lands

Mitigation for impacts to public lands shall occur when there is no feasible and prudent alternative to avoid the use of Section 4(f)/6(f) resources. The Section 4(f) project approval process requires the consideration of "all possible planning to minimize harm" on the Section 4(f) resource. Minimization of harm entails both alternative design modifications that lessen the impact on Section 4(f) resources and mitigation measures that compensate for residual impacts.

Minimization and mitigation measures shall be determined through consultation with the official of the agency owning or administering the resource. Neither the Section 4(f) statute nor regulation requires the replacement of Section 4(f) resources used for highway projects, but this option is appropriate under 23 CFR 710.509 as a mitigation measure for direct project impacts.

Mitigation measures involving public parks, recreation areas, or wildlife and waterfowl refuges may involve a replacement of land and/or facilities of comparable value and function, or monetary compensation, which could be used to enhance the remaining land. Mitigation of historic sites usually consists of those measures necessary to preserve the historic integrity of the site and agreed to in accordance with 36 CFR 800. In any case, the cost of mitigation should be a reasonable public expenditure in light of the severity of the impact on the Section 4(f) resource in accordance with 23 CFR 771.105(d). Section 6(f) of the LWCFRA has separate mitigation requirements, but these can be part of the Section 4(f) minimization requirement if the resource cannot be avoided.

If impacts to public lands are anticipated, the following mitigation procedures shall apply:

- The Environmental Consultant, the PDD Lead Environmental Planner, the DSE, and the Corridor Manager/Project Manager shall ensure that all possible planning to minimize harm of the Section 4(f)/6(f) resource is conducted and documented;
- The Environmental Consultant and the PDD Lead Environmental Planner shall coordinate consultation with the official of the agency owning or administering the Section 4(f)/6(f) resource;
- Mitigation for Section 4(f)/6(f) resources shall be considered through consultation with the owner, representative, or administrator of the resource;
- Mitigation considered for Section 4(f) resources shall include, but not be limited to, replacement of land and/or facilities, monetary compensation, restoration and landscaping of disturbed areas, incorporation of design features and habitat features, etc.;
- Mitigation considered for Section 6(f) resources shall include the replacement of the Section 6(f) property at a ratio of 1:1. Replacement property shall have at least equal or greater recreational and monetary value and is typically satisfied with Section 4(f) mitigation; and
- The cost of mitigation shall be limited to what is a reasonable public expenditure in relation to the severity of the impact.
- If necessary, detailed mitigation design and construction plans shall be the responsibility of the DSE and/or the Environmental Consultant.

6.0 Compliance and Monitoring

After projects have received environmental approval, compliance and monitoring shall begin. The purpose of this section is to provide procedural guidance for implementing environmental permits and commitments for NTTA projects to facilitate project environmental compliance and monitoring. The process of identifying environmental issues shall generally consist of verifying that mitigation, permits, and commitments identified as part of the environmental review process are executed through field inspections and annual audit reviews. It is important that compliance efforts are consistent and that projects comply with all federal, state, and local regulations. Monitoring requirements shall vary between projects as specific mitigation, permits, and other commitments made will vary.

6.1 Field Inspections

The ECT shall conduct field inspections in accordance with federal, state, and local regulations, and any commitments made during the project development and environmental review process to ensure compliance with all applicable requirements. Observations and conversations associated with field inspections shall be documented in accordance with this Manual. For any meetings convened to address environmental issues, the ECT shall prepare meeting reports which shall include:

- The issue(s) discussed;
- Those in attendance at the meetings;
- The dates and times of the meetings; and
- A summary of decisions reached at the meetings regarding actions to be taken to address the issues in question, noting by whom and by when the action is to occur.

These meeting reports shall be provided to the PDD ECM weekly. The ECT shall also confirm when and by whom the action was actually taken and shall report on its effectiveness.

6.2 Environmental Issues

Environmental issues identified during field inspections shall be documented through the NTTA Enterprise Project Delivery System (EPDS) and through coordination with the PDD ECM, Construction Management, and Legal Counsel. The process for notifying the PDD ECM, Construction Management, and Legal Counsel shall depend on the nature of the environmental issue classified as follows:

- **Site-managed Environmental Issues** - include those matters which create nonconformance with the procedures contained in this Manual, but do not result in noncompliance with applicable federal, state, or local regulations or other environmental commitments, and can be remedied by the Field Inspector/Construction Management Team in a reasonably short time (generally less than 24 hours) after the environmental issue is identified. No documentation or tracking through EPDS is required. These items shall be documented and provided to the ECM weekly.
- **Minor Environmental Issues** - include a single lapse in fulfilling a requirement that will take some period of follow-up (generally longer than 24 hours) to remedy the situation. Such issues can also include observations of potential risk or opportunities for improvement, but

do not typically include noncompliance with applicable federal, state, or local regulations or other environmental commitments associated with project environmental documentation. Because some period of time is needed to remedy the matter, minor nonconformance matters shall be documented and tracked by the ECT until completion. Tracking shall occur through the use of a Corrective Action Request (CAR) or Nonconformance Report (NCR) as prescribed in NTTA QMS procedure **ENV-03**.

Minor environmental issues shall be escalated to become major environmental issues if the Contractor disputes the proposed resolution to resolve environmental nonconformance three times.

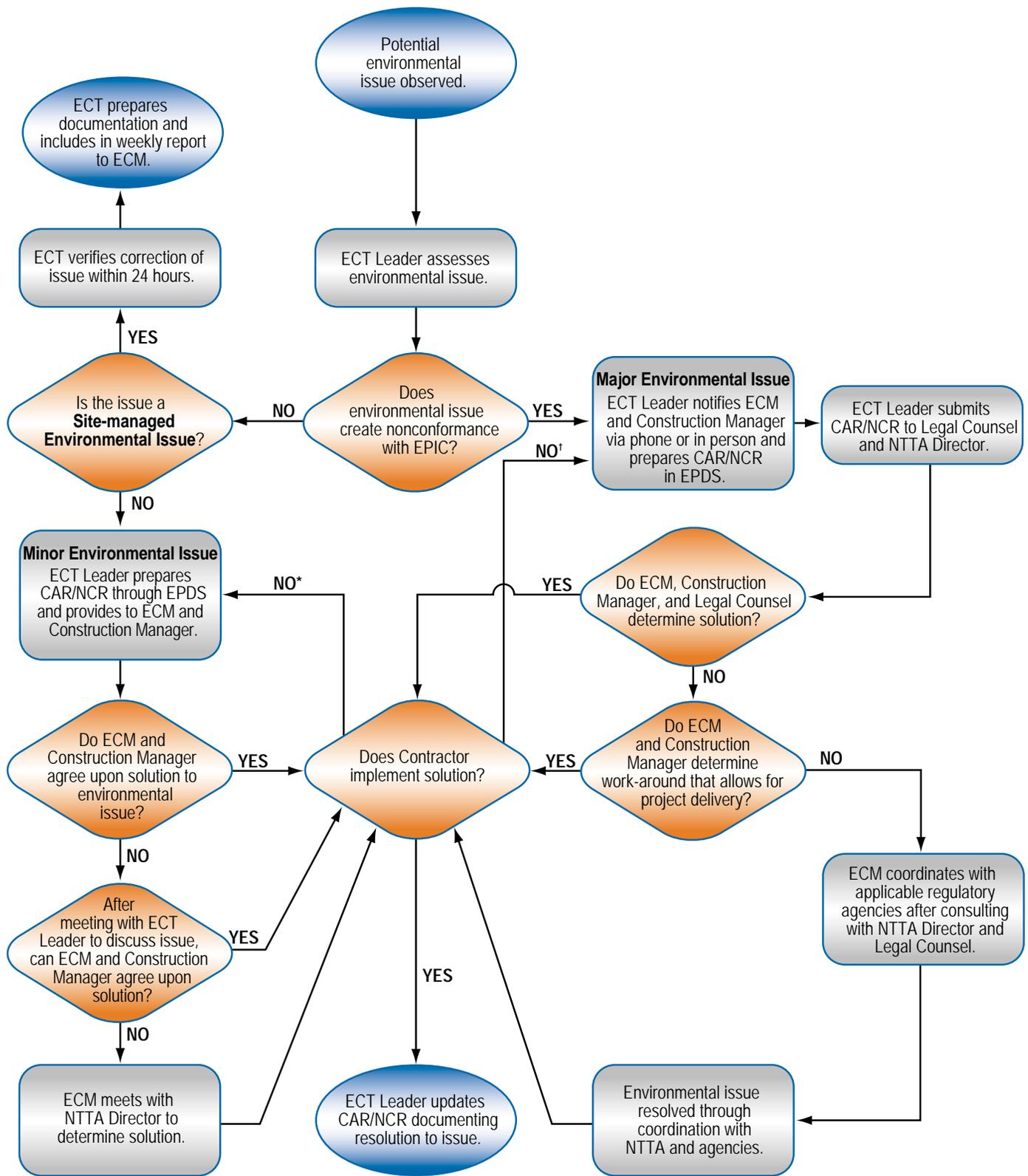
- **Major Environmental Issues** - involve those matters that relate to a failure to implement a requirement of a standard or regulation such that there is noncompliance with a federal, state, or local regulation, or violation of a commitment made during the project development and environmental documentation process; or multiple minor nonconformance issues within the same requirement. Examples include, but are not limited to, the following: (i) a violation exists that must be reported to a governmental entity, (ii) a permit or other authorization has not been obtained prior to starting work on a project, (iii) an unauthorized release to the environment has occurred, or there is a threat of such a release, which impacts adjoining property or must be reported to a governmental entity, (iv) a complaint is received (either oral or written) by a third-party regarding an environmental compliance matter, and (v) a default exists or a breach has occurred in an agreement between the NTTA and a third-party due to the environmental issue.

Major environmental issues shall be addressed through the use of a CAR or NCR as prescribed in the NTTA QMS Manual. Workflow for these CARs/NCRs shall include the ECM, Construction Management, NTTA Director of Project Delivery, and Legal Counsel. All documentation associated with an NCR shall be provided to Legal Counsel. The Construction Manager, the PDD ECM, and Legal Counsel shall be notified in person or by phone of the major environmental issue. Executive staff for NTTA will be briefed by the PDD ECM and/or the Construction Manager, and/or Legal Counsel on all major environmental issues through special item meetings, regularly scheduled update meetings, or regularly scheduled reports, as appropriate. Major environmental issues shall be addressed as soon as practicable in the field under the direction of the Construction Manager and/or PDD ECM. All consultants and contractors shall be responsible to respond to CARs and NCRs as requested by the PDD.

In the event that the Contractor disputes the proposed resolution to a major environmental issue three times, the proposed resolution shall be implemented with NTTA Director approval in accordance with Specification 8.6 of the *TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges*.

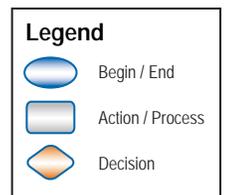
The only exception to this process would be in cases where the environmental issue is a direct threat to human welfare. In this situation, the ECT shall take immediate steps necessary to minimize such a threat.

Refer to **Figure 6-1: Environmental Compliance Issue Resolution** for a flow chart summarizing the above information. For additional information regarding environmental nonconformance, refer to NTTA QMS procedure **ENV-03**.



* In the event that the Contractor disputes the proposed resolution to a minor environmental issue three times, the issue shall be escalated to a major environmental issue.

† In the event that the Contractor disputes the proposed resolution to a major environmental issue three times, the proposed resolution shall be implemented with NTTA Director approval in accordance with Specification 8.6 of the TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges.



Environmental Compliance Issue Resolution

Figure 6-1

6.3 Annual Audit Review

It shall be the practice of the NTTA to conduct annual audit reviews in accordance with the Texas Environmental, Safety, and Health Audit Privilege Act (the "Audit Privilege Act"). The Audit Privilege Act is designed to encourage entities, including public entities, to monitor their environmental compliance. Annual audits of projects will occur as determined necessary by the ECM, Construction Manager, Corridor Manager/Project Manager, and/or NTTA executive staff, in consultation with Legal Counsel.

The procedures for integrating the use of the Audit Privilege Act into Annual Audit Reviews are as follows:

- The ECM and Legal Counsel shall assemble the Auditing Team.
- The Auditing Team shall determine the scope of the audit, the time period for conducting the audit, and the date the audit shall begin.
- Legal Counsel shall provide the Notice of Audit to the TCEQ by certified mail before beginning the audit. The notice shall contain the location of the facility to be audited, the date the audit will commence, the scope of the audit, and that the audit will be completed within 6 months. Additional time may be obtained by a request to the TCEQ and the providing of "reasonable grounds" for the extension.
- The ECM and Legal Counsel shall conduct the audit.
- The ECM and Legal Counsel shall document the findings of the audit. The audit report and all associated documents shall be labeled with the following: "COMPLIANCE REPORT: PRIVILEGED DOCUMENT."
- Legal Counsel shall forward any violations noted in the audit to the TCEQ.
- The Auditing Team, in consultation with the appropriate NTTA personnel, shall develop a schedule for resolving all outstanding nonconformance matters and identify the proposed solution for each.
- The Construction Manager shall implement a solution in accordance with the schedule developed by Auditing Team.
- Legal Counsel shall update the TCEQ upon resolution of outstanding nonconformance matters.
- The ECM and Legal Counsel shall complete the documentation on the resolution of all nonconformance matters identified in the Annual Audit Review.

6.4 Education and Communication

All NTTA construction contractors and other field personnel shall watch the NTTA *Protecting our Environment* training video. A list of each individual that watches the video shall be maintained by the Contractor and Construction Manager. The ECT shall ensure that Construction Management personnel and Contractors watch the video by requesting a sign-in sheet from the Construction Manager and Contractors on a quarterly basis. Communication is a key to environmental compliance; however, communication shall follow protocols to avoid directing contractor work by the ECT. Environmental Compliance Specialists/Inspectors shall report to the ECT Leader. The ECT Leader shall coordinate environmental issues with Construction Management personnel (e.g., Chief Inspector, Resident Engineer, and Construction Manager),

the PDD ECM, and Legal Counsel, as needed, in accordance with **Figure 6-1**. The ECT shall provide a weekly update to the PDD ECM including a summary of weekly activities, an updated EPIC Tracking Sheet (form **MAN-14-F4**), and a summary of all site-managed environmental issues. Environmental commitments shall be relayed to the Corridor Team (e.g., PDD, DSEs, Construction Management, and Contractors) through the tracking program and regular meetings. Minor and major environmental issues shall be provided to Construction Management personnel, the PDD ECM, and Legal Counsel (only in the case of a major environmental issue) via a CAR/NCR as appropriate. The ECT shall serve as a resource to Construction Management personnel and Contractors, but shall in no way direct Contractor work.

6.5 Environmental Documentation

Environmental commitments shall be identified in the environmental document prepared during project development. The ECT shall be responsible for the review of all environmental commitments that occur over the course of study as stated in the corresponding environmental document for a corridor project and ensure that the commitments are clearly expressed on the EPIC sheet(s). The ECT shall obtain a full understanding of the context in which each commitment is made. If all commitments are not contained within EPIC sheet(s), the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. The ECT shall submit weekly updates on the status and progress of environmental commitments to the PDD ECM via completion of form **MAN-14-F4**.

6.6 Waters of the U.S., Including Wetlands

The ECT shall review commitments that are entered into and expressed in the USACE Section 404 permit, Section 10 permit, and approved mitigation plan for the corridor project to ensure that the appropriate waters of the U.S., including wetlands, and related documentation are included on the EPIC sheet(s). If all commitments are not contained within EPIC sheet(s), the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. Using form **MAN-14-F4**, the ECT shall monitor these permits and commitments to ensure that permit conditions and avoidance, minimization, and other mitigation measures to address the project's impacts to waters of the U.S., including wetlands, are fulfilled.

All NTTA Contractors shall be responsible for complying with all terms and conditions of the permit. Waters of the U.S., including wetlands, shall be reviewed in the field with the Construction Manager and Contractor prior to initiation of construction. All waters of the U.S., including wetlands, which are to be avoided shall be fenced off by the Contractor with orange construction fencing or a similar material to prevent impacts to those areas. The ECT shall periodically monitor construction in and around wetlands as well as other waters of the U.S. to ensure permit compliance and make recommendations for complying with the terms of the applicable permits where challenges are anticipated.

6.7 Storm Water

The ECT shall verify that an SW3P, compliant with the CGP, is in place and that appropriate documentation (e.g., NOI, CSN, etc.) is submitted to the appropriate regulatory agencies and posted at the site prior to initiation of construction. If an appropriate SW3P or other documentation has not been prepared and construction has commenced, the ECT shall immediately notify the PDD ECM, Construction Manager, and Legal Counsel for resolution.

After obtaining coverage, the Contractor shall adhere to the requirements of the CGP. The ECT shall ensure SW3P inspections are performed as dictated by NTTA General Notes and Specifications, the SW3P, and the CGP. Furthermore, the ECT shall ensure that the SW3P information, including but not limited to SW3P plan sheets, is maintained in accordance with the CGP and SW3P. Additionally, the ECT shall verify that appropriate NOTs are submitted in accordance with the CGP.

The ECT shall prepare an annual report and submit it to the PDD ECM in January of each year that summarizes storm water management activities including contractor training; a copy of all NOI, NOC, and/or NOT associated with the project; a compilation of all SW3P inspections; and, a narrative describing the success, challenges, and incidents of nonconformance from the previous year.

6.8 Floodplain Development

All projects shall comply with FEMA regulations and local floodplain regulations. The ECT shall review environmental documentation to ensure that potential floodplain impacts (both permanent and temporary) have been assessed during the planning process. ECT members shall familiarize themselves with mapped FEMA floodplains within the project area and all applicable floodplain development permits for the project. The ECT shall review floodplain development permits and proposed actions by the Contractor to ensure that activities comply with all permits and regulations. If a proposed action is not authorized by an existing floodplain development permit, the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. On-site inspections shall be conducted by the ECT to ensure Contractor activities are within limits defined by floodplain development permits and/or FEMA regulations.

6.9 Wildlife / Threatened and Endangered Species

The ESA prohibits the “take” of any endangered or threatened species. Endangered and threatened species and/or their habitat shall be determined during the environmental documentation phase. The ECT shall review the environmental documentation and ensure that all commitments regarding these species and their habitats are placed on EPIC sheet(s) and adhered to at all times. If all commitments are not contained within EPIC sheet(s), the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. If necessary, the PDD ECM and/or ECT shall coordinate with the appropriate agencies and conduct surveys in order to comply with commitments. In the event that a previously unidentified threatened or endangered species is observed within the construction project, the PDD ECM, and Construction Management Team shall be notified immediately.

The MBTA protects migratory birds and their nests. In order to assist in compliance with the MBTA, the ECT shall conduct nesting bird surveys prior to the initiation of clearing and grubbing activities during the period of February 15 through October 1. Survey methodology is highly site specific and shall be approved by the PDD ECM at least 2 weeks prior to initiation of surveys. Surveys shall be conducted by, or under the supervision of, the Environmental Consultant’s qualified wildlife biologist. Clearing and grubbing activities shall commence no later than 2 weeks from the time the surveys are conducted. Birds encountered during the surveys shall be identified to species, the status of their nest (i.e., active or inactive) determined, and active nests shall be plotted on maps. If active migratory bird nests are encountered or should nesting begin

at the construction site, a temporary buffer shall be created around the nests which will be left undisturbed until the ECT verifies that nesting is completed or terminated, and the chicks fledge.

6.10 Cultural Resources

Investigations of cultural resources (e.g., historic places, archeological sites, Native American sites) shall occur for all proposed tollway projects on new location (e.g., new facilities, extensions, expansions, etc.) during the environmental review process in the project development phase. If any mitigation is required, mitigation commitments shall be included in the environmental documentation. The ECT shall ensure that mitigation commitments are accurately depicted on the EPIC sheet(s). If all commitments are not contained within EPIC sheet(s), the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. The ECT shall ensure that mitigation requirements and commitments are met in full and documented as may be required by any federal, state, or local regulations.

The ECT shall advise the Construction Management personnel of the potential for discovering unknown cultural resources and periodically monitor the construction site for unknown cultural resources. If unknown cultural resources are discovered, the ECT shall immediately notify the PDD ECM and Construction Manager regarding the details of the incident (i.e. location, general description of cultural resource, measures taken to prohibit construction in the vicinity of the cultural resource, etc.). The PDD ECM shall then coordinate with NTTA regarding the matter. The PDD ECM shall coordinate with all necessary agencies and shall notify the ECT regarding the results of the coordination and any requirements as related to continuance of construction activities in the vicinity of the cultural resources.

The PDD ECM shall be responsible for coordinating with the NTTA, Legal Counsel, and appropriate agencies concerning the discovery of unknown cultural resources. Discovery of unknown cultural resources on projects with federal/state funding shall be coordinated with TxDOT as soon as practicable. Discovery of archeological resources during locally-funded project construction shall be coordinated with the THC. In addition, this information shall be relayed to the USACE in accordance with applicable Section 404 permit conditions.

6.11 Hazardous Materials

Hazardous materials shall be identified during the environmental review process. The ECT shall review any hazardous materials mitigation plans (e.g., cleanup, avoidance, etc.) and assist in coordination with the TCEQ or the EPA, as necessary. The ECT shall ensure that environmental commitments related to hazardous materials are accurately depicted on the EPIC sheet(s). If all commitments are not contained within EPIC sheet(s), the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. On-site inspections shall be conducted by the ECT to ensure that hazardous materials mitigation plans are implemented according to the plans and specifications.

6.12 Noise Abatement

Noise abatement measures (e.g., noise walls, construction restrictions, etc.) shall be identified during the environmental review process and included in the environmental documentation, as appropriate. The ECT shall ensure that noise abatement commitments are accurately depicted on the EPIC sheet(s). If all commitments are not contained within EPIC sheet(s), the ECT shall

provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. On-site inspections shall be conducted by the ECT to ensure that noise abatement measures are implemented according to the plans and specifications.

6.13 Public Lands

Potential impacts to public lands, including Section 4(f) property (e.g., publicly owned parks, recreation areas, wildlife or waterfowl refuges, etc.), and appropriate mitigation measures shall be identified during the environmental review process and included in the environmental documentation, as appropriate. The ECT shall ensure that public lands commitments are accurately depicted on the EPIC sheet(s). If all commitments are not contained within EPIC sheet(s), the ECT shall provide comments to the PDD ECM for coordination with the Corridor Manager/Project Manager. On-site inspections shall be conducted by the ECT to ensure that mitigation plans for public lands are implemented according to the plans and specifications.

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