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I.
Course
Introduction
and Resources
Available

Office of Environment and Energy (OEE)

- Administratively located within HUD's Office of Community Planning and Development (CPD)
- Responsible for overall oversight of HUD's environmental review procedures and compliance with NEPA and the related laws and authorities as detailed in 24 CFR Parts 58 and 50
- Works collaboratively with all applicable HUD program areas to ensure compliance and assist with the development of policy/guidance materials
- Provide technical assistance and training to staff, grantees, local governments, and consultants*
- Monitoring
- Training

HUD Online Resources

HUD Environmental Weblinks

- Office of Environment and Energy/Headquarters:
<https://www.hudexchange.info/environmental-review/>
- Training webinars (pre-recorded):
<https://www.hudexchange.info/environmental-review/environmental-review-training/>
- HUD Environmental Review Online System (HEROS): <https://heros.hud.gov/>
- WISER:
<https://www.hudexchange.info/trainings/wiser/>

HUD Environmental
Guidebooks
Order at Order HUD
books/publications
at 800-767-7468 or
202-708-3151

HUD Noise Guidebook

- <https://www.onecpd.info/resource/313/hud-noise-guidebook/>

Acceptable Separation Distance Guidebook

- <https://www.onecpd.info/resource/2762/acceptable-separation-distance-guidebook/>

Barrier Design Guidance for HUD Assisted Project Near Hazardous Facilities

- <https://www.onecpd.info/resource/2762/acceptable-separation-distance-guidebook/>

Choosing an Environmental Safe Site

- <https://www.onecpd.info/resource/83/choosing-an-environmentally-safe-site/>

Additional Resources

USFWS NWI Wetlands Mapper



<https://www.fws.gov/wetlands/data/mapper.html>

FEMA Flood Map Service Center



<https://msc.fema.gov/portal/home>

EPA Cleanups in My Community



<https://www.epa.gov/cleanups/cleanups-my-community>

EPA NEPAassist



<http://nepassisttool.epa.gov/nepassist/entry.aspx>

II.
National Environmental Policy Act (NEPA)
of 1969

National Environmental Policy Act of 1969



- National charter for environmental protection
- Established Council on Environmental Quality (CEQ)
- Requires all Federal agencies to adopt a systematic interdisciplinary approach to decision-making to ensure environmental values are considered

CEQ's
Regulations
Require
Federal
Agencies to:

- Make decisions based on understanding of environmental consequences **BEFORE** final decision are made
- Ensure environmental information is made available to public officials and citizens **BEFORE** decisions are made and **BEFORE** actions are taken
- Consider reasonable alternatives
- Avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.
- Integrate NEPA requirements with other planning and environmental review
- Take actions that protect, restore, and enhance the environment.

NEPA is the Umbrella

- For compliance with other Federal laws and authorities
- A wide range of environmental factors must be considered – these are the spokes of the umbrella...

NEPA Is the Overarching Federal Process For:

Considering all federal
environmental laws and executive
orders, including those that affect:

- Historic Properties
- Fish and Wildlife
- Human Health
- Land
- Water
- Air



EA's Can
Result in A
"Finding of
No Significant
Impact"
[Section
1508.13]

- Federal agency document presenting the reasons why an action, not otherwise excluded, will not have a significant effect on the human environment and why an EIS will not be prepared
- Shall include the EA or EA summary and note other environmental documents related to it.

Limitations on Actions During NEPA Process [Section 1506.1]

- Until the Agency has issued a decision, no action shall be taken that will:
 - Have an adverse environmental impact, or
 - Limit the choice of reasonable alternatives

NEPA
Documents
Should Be
Clear, Concise
and
Meaningful to
the Public [40
CFR Part
1500.1(b)&(c)]

- NEPA's purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action.
- NEPA documents must concentrate on the issues that are truly significant to the action, rather than amassing needless detail.
- Ultimately, it is not better documents, but better decisions that count.

Value of Environmental Review

- Required by law
- Secures the value of public investment
- Results in higher quality projects
- Avoids or mitigates environmental impacts that harm:
 - Our beneficiaries
 - Our projects
 - The surrounding environment
- Helps avoid litigation that could stop project
- Grantees avoid monitoring findings and sanctions

BY GEORGE

The Two
Pillars of
NEPA:

- ✓ **Better
Informed
Decisions**
- ✓ **Citizen
Involvement**

A painting of George Washington in 18th-century attire, including a large black hat and a brown coat. He is pointing his right index finger directly at the viewer with a slight, knowing smile. The background is a dark, textured brown.

I THINK I'VE GOT

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III.

24 CFR

Part 58

Overview

NEPA Implementation is Important for Meeting HUD's Mission

Two regulations provide for HUD's implementation of NEPA and related authorities

- 24 CFR Part 50 – applies to HUD itself
 - “Protection and Enhancement of Environmental Quality”
- 24 CFR Part 58 – applies to States, Counties, Cities, Tribes
 - “Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities”

NEPA Assumption Authority under Part 58 [§58.4]

Why You Are HERE...

- Responsible Entities (REs) assume HUD's NEPA responsibilities
- Serve as the Federal Agency on behalf of HUD
- RE assumes responsibility for:
 - Environmental **review**
 - Environmental **decision-making**
 - Environmental **action** that would apply to HUD under NEPA and related laws

Only the Following Can Serve as Responsible Entities

Units of General Local Government (UGLGs)--
Section 5302(a) Housing and Community
Development Act of 1974] defines UGLGs as:

- County, parish, city, town, township, village or other general-purpose political subdivision of a State
 - Have power to levy taxes and expend Federal, State, and local funds and exercise governmental powers
- States or Indian tribes that do not distribute HUD assistance to a unit of general local government.

Other recipients of HUD assistance who cannot function as a Responsible Entity [§58.2(a)(5)]

- Organizations that have a grant agreement with HUD, including:
 - Tribal housing authorities
 - Public housing authorities
 - Councils of Government
 - Planning Agencies
 - Other quasi-governmental organizations
 - Non-profit organizations
 - For-profit entities

RE must assume
HUD's environmental
responsibilities



Must comply with:

NEPA

CEQ regulations
of 40 CFR parts
1500 through
1508

Requirements of
Part 58

RE's Basic
Environmental
Responsibility
[§58.10]

RE's Must
Interact with
Other Entities
in Preparing
Environmental
Reviews
[§58.14]

Consult with appropriate federal agencies

- ***This consultation process cannot be delegated to third parties, including contractors***

Cooperate with other agencies to reduce duplication

May participate in a jointly prepared environmental review:

- Lead Federal Agency
- Cooperating Agency

Certifying Officer [§58.13]

- The RE's Certifying Officer is the "**Responsible Federal Official**" as that term is used in section 102 of NEPA
- Generally the UGLG's, State's, or Tribe's **highest-ranking elected** official
- **Written delegation** necessary if:
 - Role is delegated below Governor, Mayor, City Manager, County Judge
 - Can generally be delegated to person who signs grant agreements
- **Responsible for all the requirements of:**
 - NEPA section 102
 - Related provisions in 40 CFR parts 1500 through 1508
 - 24 CFR part 58, including the related Federal authorities
- Ensures that the RE reviews and comments on all EISs prepared for Federal projects that may have an impact on the recipient's program.
- Responds to the **jurisdiction of the federal courts**
- Has the **authority to enter into binding commitment** in response to court judgments

When the RE
Prepares
Environmental
Reviews on
Behalf of Non-
RE Recipients
[§58.71]

The RE must:

- Independently evaluate environmental information Recipient provides
- Prepare environmental review
- Provide the Recipient with the Certification Form (e.g. 7015.15)
- Provide description of environmental conditions that must be adhered to in carrying out the project
 - Recommend this be included in Project Description Section of 7015.15

Role of Non-RE Recipients in Environmental Review [§58.71]

Provide the RE with all available project and environmental information

- Refrain from undertaking any physical activities or choice limiting actions until HUD/State/Tribe issue authorization to use grant funds
- Submit certification form it received from RE to HUD/State/Tribe
- Abide by special conditions, procedures and requirements of the environmental review
- Advise the RE of proposed changes in the scope of the project or change in environmental conditions

States and Tribes Can Administer Programs on Behalf of HUD (Section 58.18)

The State or Tribal agencies must designate, in writing, the agency responsible for administering Subpart H, Release of Funds

The designated agencies must:

- Accept Request for Release of Funds
- Receive objections and appeals
- Issue authorization to use grant funds
- Develop and conduct monitoring and enforcement program

Request for Release of Funds—The RE's Certification that it has met its NEPA and Related Responsibilities
[§58.2(a)(6)]

Request for Release of Funds (RROF)—HUD Form 7015.15

- Signed only after environmental review is finalized and the public comment periods have closed.

Release of funds—HUD Form 7015.16

- HUD issuance of a firm approval letter, and environmental clearance

Limitation on Activities Prior to Clearance - §58.22(a)

Prior to Receiving Environmental
Clearance a Recipient Must Not Commit:

- HUD Funds, or
- Non-HUD funds if the activity would:
 - have an adverse environmental impact, or
 - limit the choice of reasonable alternatives

This limitation is rooted in all NEPA related
authorities – *Don't take action until
compliance is achieved !*



Section 58.22 Limitation on Third Parties



Part 58.22 extends this prohibition to third parties, including:

- Recipients, ***and***
- Participants in the development process
 - Public or Private Nonprofit
 - For Profit Entities
 - Contractors

What are Choice- Limiting Actions?

Real property acquisition

Leasing

Disposition

Demolition

Rehabilitation

Repair

Construction

Site improvements

Statutory vs. Regulatory Violations

➤ Regulatory violation:

- Committing or expending non-**HUD funds** on a choice-limiting action *after application* for HUD assistance but before approval date on AUGF

➤ Statutory Violation:

- Committing or expending **HUD funds** on a choice-limiting action *after application* for HUD assistance but before recipient submits RROF



Possible Remedies for Non-Compliance

Mandatory Training

Corrective Action Plan

Suspension of funds used to finance the violating activity

Recapture of funds used to finance the violating activity

Possible debarment and/or LDP of principals involved

Other administrative remedies

Questions?





Steps of the 24 CFR Part 58 Environmental Review Process

Steps of the Environmental Review Process

Step 1: Develop a meaningful project description

Step 2: Determine the level of environmental review

Step 3: Conduct the environmental review

Step 4: If necessary, submit RROF (HUD-7015.15)

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STEP 1: DEVELOP A MEANINGFUL PROJECT DESCRIPTION

Why Worry About the Project Description?

It is the Point of Departure for the Environmental review

- Basis for determining the level of environmental review
- Basis for informing the public about the action

Basis for monitoring compliance

- If funds are used for something not included in the Project Description, it could be a violation

What Can Poor Project Descriptions Lead to?

- **Failure to inform the public**
- **Incorrect level of environmental review**
- **Incorrect environmental review determinations leading to violations and sanctions**
- **Project activities being left out of review, requiring additional environmental review**
- **Monitoring findings**

Activities and Projects [§ 58.2]

Project:

- an activity, or a group of integrally related activities, designed by the recipient to accomplish, in whole or in part, a specific objective.

Activity:

- An action that a grantee or recipient puts forth as part of an assisted project, regardless of whether its cost is to be borne by the HUD assistance or is an eligible expense under the HUD assistance program.

Example: Activities include demolition and reconstruction of a single-family home. City funds will be used for demolition and HUD funds will be used for reconstruction. Project = Demolition + Reconstruction.

Aggregating Activities

Location Based—geographically aggregated or aggregated based on a set of contemplated actions to evaluate a range of activities occurring at a single location

- Rehabilitation of a single-family home
- New construction of an affordable housing apartment complex
- Three phase development of a regional sewer system

Activity Based—functionally aggregated based on a discreet set of activities

- Homeowner occupied rehab at scattered sites throughout the City limits
- Street repaving at various locations within the City limits

Funding
Source Itself
Is NOT a Basis
for
Aggregation,
Project
Descriptions,
or Tiering

- Examples of using program funding as a basis for project aggregation
 - Public Housing Agency five-year plan
 - HOME/CDBG funding for an annual action plan
- Is often one of the greatest cause of violations
 - Activities can be overlooked
 - Can result in inappropriate levels of environmental review

Meaningful Project Descriptions Include:

HUD's Action – providing insurance, grant, loan

Amount of HUD Funds

Location—describe so the public can locate (e.g. street address or map coordinates)

Purpose and Need—describe what is being done and why it is necessary; sometimes included in program description

Project Beneficiaries (i.e. affordable housing project, mixed use housing project, market rate housing project)

Activity Description—provide complete details about what will be done

- Type of project (e.g. new construction of multifamily housing)
- Details of aggregated project
- Timeframe for implementation
- Size of the project (area coverage, disturbance footprint, number of units, population served)

Area Setting:

- Character
- Features
- Resources
- Trends likely in the absence of the project

–**All other funding sources (if any)**

–**All development partners (if any)**



QUESTIONS?

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Step 2: Determine the Level of Environmental Review

Determining the Level of Environmental Review

Level of environmental review is based on
the project description.

There are five different levels of
environmental review each with different
requirements

Exempt	Categorical Exclusions Not Subject to §58.5	Categorical Exclusions Subject to §58.5	Environmental Assessment	Environmental Impact Statement
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Exempt
[§58.34]

1. Environmental studies, plans, & strategies
2. Information & financial services
3. Administrative & management expenses
4. Public services that will not result in physical changes: employment, crime prevention, child-care, health, drug abuse, education, counseling, energy conservation, welfare, & recreational needs
5. Inspections & testing properties for hazards & defects
6. Purchase of insurance

Exempt (cont.)

7. Purchase of tools
8. Engineering or design costs
9. Technical assistance & training
10. Assistance for temporary or permanent improvements that do not alter environmental conditions and are limited to protection, repair, or restoration activities necessary only to control or arrest the effects from disasters or imminent **threats to public safety**, *including* those resulting from physical deterioration
11. Payment of principal and interest on HUD loans
12. Any of the Categorically Excluded Subject To (CEST) activities at §58.35(a) **IF** Federal laws and authorities at §58.5 are not triggered

Procedural Requirements for Exempt Projects

RE must document determination of Exemptions

Compliance with §58.6 is required

Compliance §58.5 is not required.

Publication of a Notice of Intent to Request Release of Funds (NOI/RROF) is not required.

Submission of a certified RROF to HUD is not required.

Categorical
Exclusions
Not
Subject to
§58.5
(CENST)
[§58.35(b)]

1. Tenant-based rental assistance
2. Supportive services including, but not limited to, health care, housing services, permanent housing placement, day care, nutritional services, short-term payments for rent/mortgage/utility costs, and assistance in gaining access to local, State, and Federal government benefits and services
3. Operating costs including ***maintenance***, security, operation, utilities, furnishings, equipment, supplies, staff training, and recruitment and other incidental costs

Maintenance Activities

- Unlike repair and improvements, maintenance activities do not materially add to the value of a building, appreciably prolong its life, or adapt the building to new uses.
- If items that would otherwise be considered maintenance are done as part of an extensive remodeling or renovation of a building, the entire job is considered a repair or improvement.
- Simultaneous maintenance work in multiple units or buildings is still considered maintenance.

Maintenance Activities

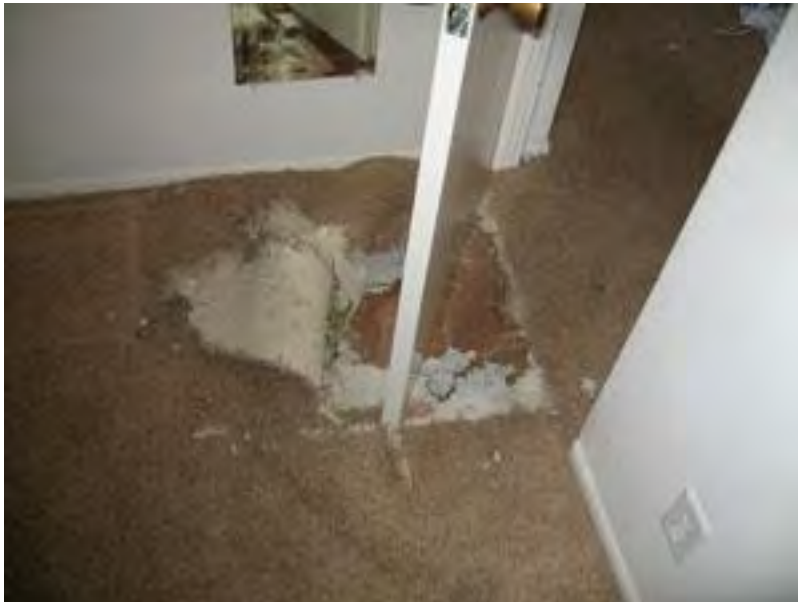
Maintenance Activities include:

- Cleaning activities;
- Protective or preventive measures to keep a building, its systems, and its grounds in working order;
- Replacement of appliances or objects that are not fixtures;
- Periodic replacement of a limited number of component parts of a building feature or system that are subject to normal wear and tear;
- Replacement of a damaged or malfunctioning component part of a building feature or system. (Replacement of all or most parts or an entire system is not maintenance.)

NOTE: A fixture is an object that is physically attached to the building and cannot be removed without damage to the building, and includes systems designed for occupant comfort and safety, such as HVAC, electrical or mechanical systems, sanitation, fire suppression, and plumbing. Fixtures also include, but are not limited to, kitchen cabinets, built-in shelves, toilets, light fixtures, staircases, crown molding, sinks, and bathtubs. **(Fixtures are not considered maintenance).**

Issue:

Damaged Carpet



Maintenance

Replace Carpet



Issue:
Leaky Window



Maintenance
Replace
Windows



Issue:

Tree falls
on a
home

Maintenance

Remove tree and patch
the roof



CENST (cont.)

4. Economic development activities not associated with construction or expansion of existing operations
5. Activities to assist homebuyers to **purchase existing dwelling units** or **dwelling units under construction**, including closing costs and down payment assistance, interest buy-downs, and similar activities that result in the transfer of title. (If new construction, then CEST)
6. Affordable housing pre-development costs (e.g. legal, and consulting costs, related to obtaining site options, other related activities with no environmental impact).
7. Approval of supplemental assistance (including insurance or guarantee) to a project previously approved under this part, if the approval is made by the same responsible entity that conducted the environmental review on the original project and re-evaluation of the environmental findings is not required under §58.47.

Procedural Requirements for CENST Projects

Procedural Requirements are the same as Exempt.

RE must document determination of CENST.

Compliance with §58.6 is required

Compliance §58.5 is not required.

Publication NOI/RROF is not required.

Submission of a certified RROF to HUD is not required.

Categorical Exclusions Subject to §58.5 (CEST) [58.35(a)]

1. Acquisition, repair, improvement, reconstruction or rehabilitation of public facilities and improvements when (other than buildings):
 - Facilities and improvements are in place
 - No more than 20% change in size or capacity
 - No change in land use

2. Removal of architectural barriers that restrict accessibility



CEST (cont.)

3. Rehabilitation of buildings and improvements:
 - i. Residential Structures of 1 – 4 units: no more than 4 units; no change in land use;
 - ii. Multifamily Residential Structures: unit density does not change more than 20%; no change in land use; cost of rehab is less than 75% of replacement cost after rehab
 - iii. Commercial, Industrial, and Public Buildings: size and capacity does not increase by more than 20%; no change in land use



CEST (cont.)

4. Individual action on up to four dwelling units (One 4-unit structure or four 1-unit structures or any combination in between) or an individual action on a project of five or more housing units when sites are more than 2,000 feet apart and no more than four units on any one site.



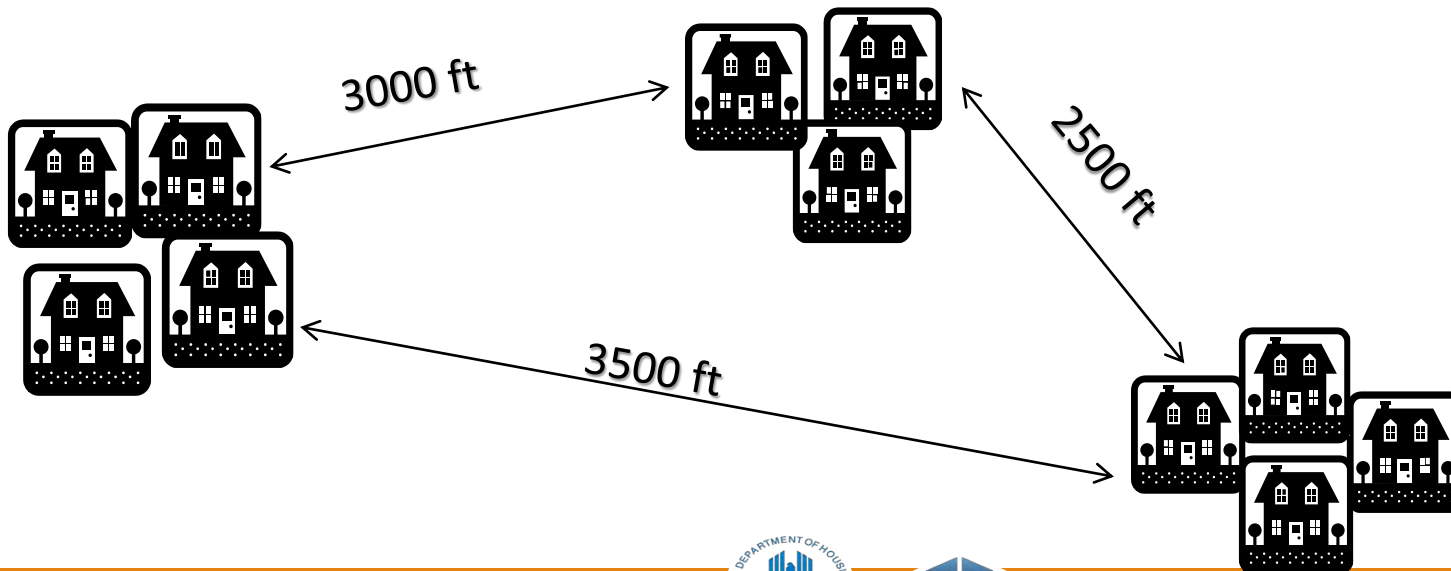
Example: Individual Action

Scattered Sites:

PROJECT = 11 SF Houses

Maximum of 1-4 dwellings on any single site **AND**

Each site min. 2000+ ft. apart from any other site



CEST (cont.)

5. Acquisition (including leasing) or disposition of, or equity loans on an existing structure, or acquisition (including leasing) of vacant land provided that the structure or land will be retained for the same use.

*The category of leasing includes project-based rental assistance, or rental assistance that is attached to a residential unit, not to a tenant. For example, “leasing” would be the appropriate choice if you plan to use HUD funds to lease a unit and place participants in the unit as they are deemed eligible for your program.

6. Combination of any of the above activities.



Procedural Requirements for CEST

RE must document determination of CEST.

- Compliance with §58.6 is required
- Compliance §58.5 is required
- Can convert to exempt if activities are found not to require compliance with any authority under §58.5 (such as mitigation measures, additional studies, conditions, further consultation, permits).
- Publication of NOI/RROF is required, unless project converts to exempt.
- Submission of a certified RROF to HUD required, unless project converts to exempt.

Environmental Assessments (EA) [§58.36]

- If a project is not exempt or categorically excluded as described above, then an **Environmental Assessment (EA)** must be prepared.
- Example: New construction of water lines.



Procedural Requirements for EAs

- Compliance with §58.6 is required
- Compliance §58.5 is required
- Assessment of EA factors is required
- EA reaches a Finding of No Significant Impact (FONSI) or a conclusion that an Environmental Impact Statement must be prepared
- Publication of NOI/RROF is required
- Publication of FONSI notice is required
- Submission of a certified RROF and evidence of notices to HUD is required



EIS Required When:

- A project has a significant impact on the human environment as judged by:
 - Context
 - Intensity

OR

- A project exceeds HUD's thresholds for an EIS

Questions?

Coastal
Barrier
Resources
Act

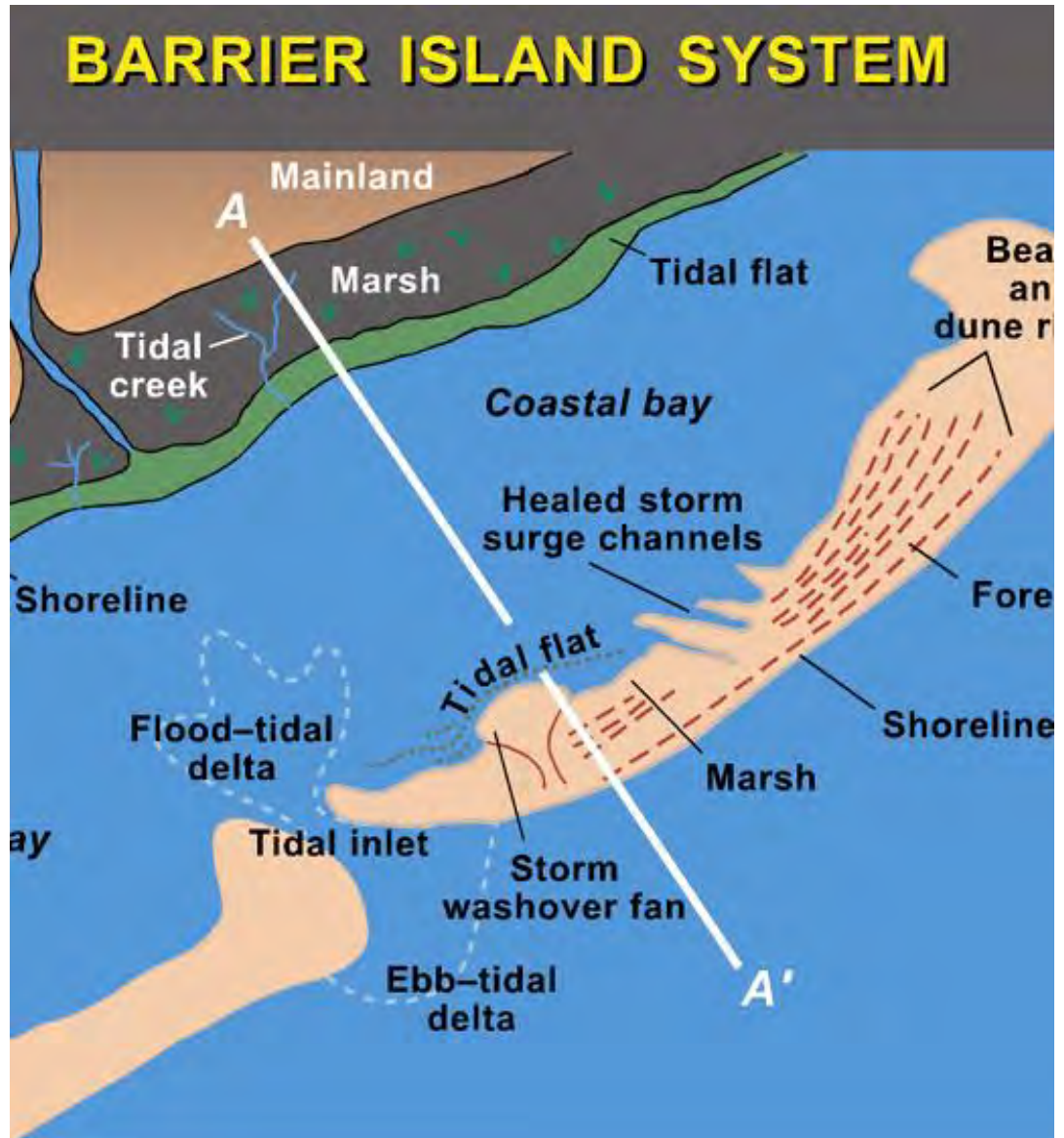
§50.4(c)(1) &
§58.6(c)

HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/coastal-barrier-resources>
- Coast Barrier Resources Worksheet:
<https://www.hudexchange.info/resources/documents/Coastal-Barrier-Resources-Worksheet.docx>

Coastal Barriers

- Occur on the Atlantic, Gulf of Mexico and Great Lake coastlines
- Unique landforms
- Provide protection for diverse aquatic habitats
- Serve as mainland's first line of defense against storms and erosion



Coastal Barrier Resources Act

- The Coastal Barrier Resources Act (CBRA) of 1982 designated relatively undeveloped coastal barriers along the Atlantic and Gulf coasts as part of the John H. Chafee Coastal Barrier Resources System (CBRS) and made these areas ineligible for most new Federal expenditures and financial assistance.
- The Coastal Barrier Improvement Act (CBIA) of 1990 reauthorized the CBRA and expanded the CBRS to include undeveloped coastal barriers along the Florida Keys, Great Lakes, Puerto Rico, and U.S. Virgin Islands.
- The law encourages the conservation of hurricane-prone, biologically rich coastal barriers by restricting Federal expenditures that encourage development.
- HUD financial assistance may not be used for most activities in CBRS units.

LOCATION OF CBRS UNITS

ALABAMA

CONNECTICUT

DELAWARE

FLORIDA

GEORGIA

LOUISIANA

MAINE

MARYLAND

MASSACHUSETTS

MICHIGAN

MISSISSIPPI

MINNESOTA

NEW JERSEY

NEW YORK

NORTH CAROLINA

OHIO

PUERTO RICO

RHODE ISLAND

SOUTH CAROLINA

TEXAS

U.S. VIRGIN ISLANDS

VIRGINIA

WISCONSIN

24 CFR 58.6 (c)
Coastal Barrier
Resource
System
Requirements

- Areas within the Coastal Barrier Resources System are mapped and described as CBRS units
- With very limited exceptions, **federal assistance is not allowed** for projects in a CBRS unit.

How to Determine if your Project is in a Coastal Barrier Resource System (CBRS)

- Not applicable to projects that are not in a coastal area
- For projects in a Coastal Area, use the U.S. Fish and Wildlife Service's Coastal Barrier Resources Act Mapper

<http://www.fws.gov/CBRA/Maps/Mapper.html>

U.S. Fish & Wildlife Service
Coastal Barrier Resources System

Google Custom Search Search Ecological Services

CBRS Menu

- CBRS Home
- Legislation & Testimony
- Historical Changes
- CBRA Prohibitions
- Flood Insurance
- Official Maps
- Boundary Modifications
- Mapping Projects
- Property Determinations
- Project Consultations

Help and Contacts

- Glossary
- Contact Us
- Documents Library

1 Please read the Data Disclaimer and Use Constraints for each mapper before use.

2 Open either Mapper by clicking on the map icons below (best viewed by maximizing your browser window):

CBRS Mapper

CBRS data desktop/mobile viewer; data last modified Oct. 1, 2017. Use this mapper to view the existing CBRS boundaries. This mapper can be used to help property owners, local, State, and Federal stakeholders, and others determine whether or not properties or project sites may be affected by CBRA. Please read the [Data Disclaimer and Use Constraints](#).

CBRS Projects Mapper

Draft revised CBRS units (including additions, deletions, and reclassifications) within active mapping projects; date last modified Mar. 9, 2018. Use this mapper to view changes to the CBRS that are proposed by the Service.

Note: The revised units depicted in this mapper are not currently effective.

Last updated: March 9, 2018

U.S. Fish and Wildlife Service Home Page | Department of the Interior | USA.gov | About the U.S. Fish and Wildlife Service
Accessibility | Privacy | Notices | Disclaimer | FOIA

Accept the Mapper's Terms and Conditions

The screenshot displays the 'Coastal Barrier Resources System Mapper' interface. A central white dialog box titled 'Disclaimer' is overlaid on the map. The dialog contains the following text:

Disclaimer

The U.S. Fish and Wildlife Service (Service) is not responsible for any misuse or misinterpretation of this digital data set, including use of these boundaries (which are approximate digital representations of the boundaries shown on the official maps) to determine eligibility for Federal expenditures and financial assistance including Federal flood insurance. The official Coastal Barrier Resources System (CBRS) maps (not these digital data) are the controlling documents of the CBRS boundaries and are maintained by the Service.

Copies of the official CBRS maps are available for viewing at the Service Headquarters office and are also available for download on the CBRS Mapper and at the [Maps](#) web page. For information on obtaining an official determination of whether or not an area or specific property is located within the CBRS, please visit the [Determinations](#) web page. For information on project consultations, please visit the [Consultations](#) web page. For general questions regarding the CBRS, you may contact cbra@fws.gov. For information on the horizontal accuracy of this digital data set, please read the [metadata](#).

Base cartographic information used as part of this CBRS Mapper has been provided through third party products. The FWS does not maintain, and is not responsible for the accuracy or completeness of the base cartographic information.

This application may not be fully accessible to people with disabilities. If you need assistance accessing this mapper or CBRS data email us at: cbra@fws.gov.

At the bottom of the dialog box is a pink button that reads 'I accept the terms and conditions'. A large orange arrow points from the right side of the dialog box towards the map area.

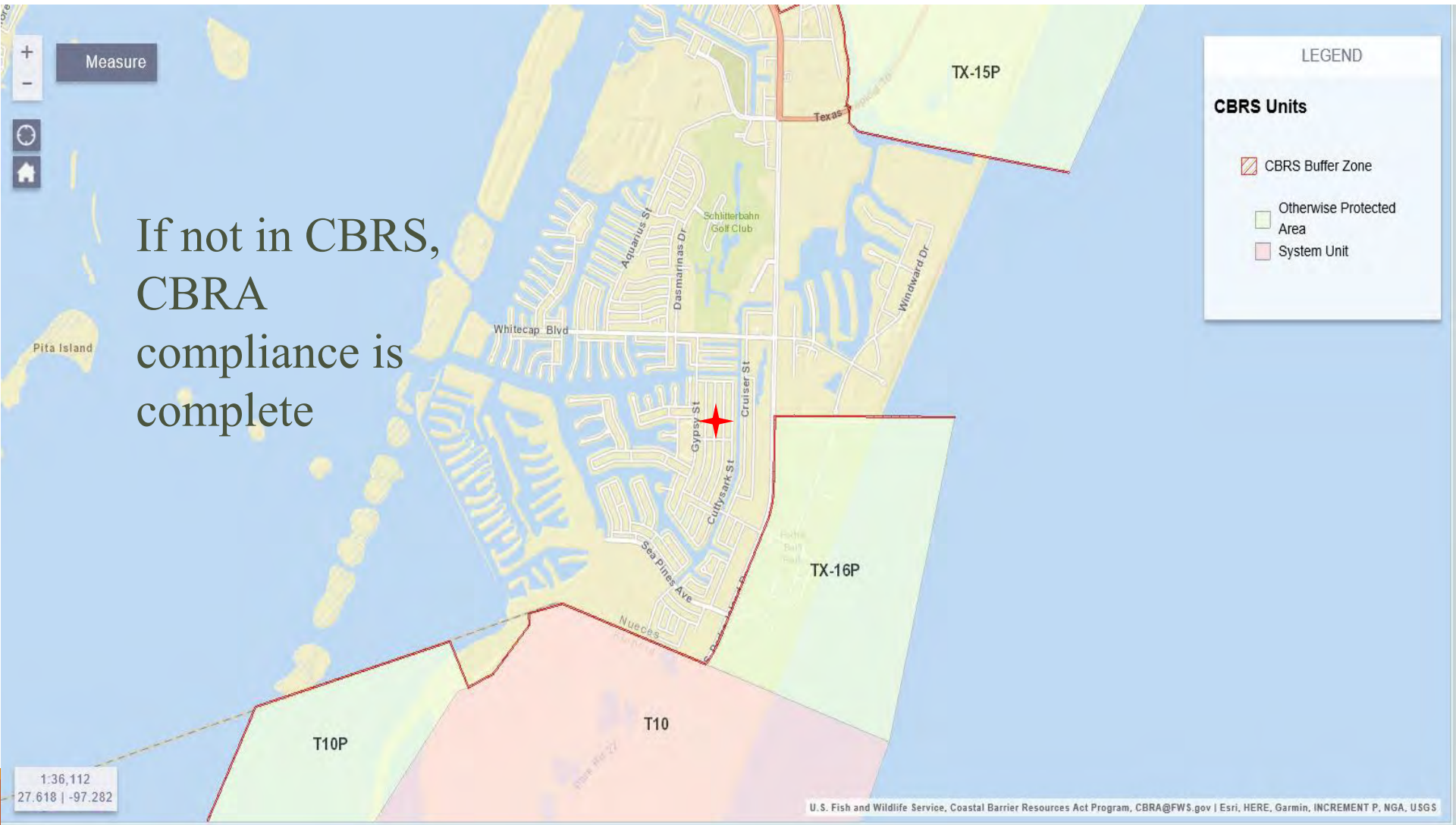
The application interface includes a sidebar on the left with 'BASEMAPS' and 'MAP LAYERS' sections, a 'Measure' tool, and a 'Legend' on the right showing 'CBRS Units'. The map displays the United States with yellow-shaded coastal barrier areas. The title bar at the top reads 'CBRS Mapper' and the main header says 'Coastal Barrier Resources System Mapper U.S. Fish & Wildlife Service'. Navigation buttons for 'FIND CBS UNIT' and 'FIND LOCATION' are visible in the top right.

Click "Find Location" Enter Address

The image shows a screenshot of the 'Coastal Barrier Resources System Mapper' web application. The interface includes a top navigation bar with a 'FIND LOCATION' button, a left sidebar with 'BASEMAPS' and 'MAP LAYERS' sections, and a central map area. The map displays the United States with yellow circular markers and a yellow line tracing the coastal barrier system. A 'Find Location' search box is overlaid on the map, containing a search input field and a 'Dismiss' button. An orange arrow points from the 'FIND LOCATION' button to the search box. The search box text reads: 'Find Location', 'Search for a place', and 'Search provided by USGS Search Javascript API'. The bottom left corner shows coordinates: '1:18,489,298' and '48.034 | -114.388'. The bottom right corner contains the footer text: 'U.S. Fish and Wildlife Service, Coastal Barrier Resources Act Program, CBRA@FWS.gov | Earthstar Geographics | USGS The National Map'.


Results Showing Project Outside of the CBRS

If not in CBRS,
CBRA
compliance is
complete



Documentation
for the ERR Must
Contain One of
the Following:

A general location map
establishing there are no Coastal
Barrier Resource System units near
the city or county



The FWS Coastal Barrier map
showing the proposed project is
not located within a designated
Coastal Barrier Resources System
Unit.

Questions??



Coastal Zone
Management
Act of 1972

**24 CFR PART 58.5 (C) &
PART 50.4 (C)(2)**

HUD Resources

HUD Guidance:

<https://www.hudexchange.info/programs/environmental-review/coastal-zone-management>

Coastal Zone Management Worksheet:

<https://www.hudexchange.info/resources/documents/Coastal-Zone-Management-Worksheet.docx>

What is a Coastal Zone?

Coastal zones are areas along the coast that are officially designated by the state.

The coastal zone includes:

- coastal salt waters and adjacent shore lands;
- intertidal areas;
- barriers and other islands and estuaries; and
- land whose use would have a significant impact on coastal waters.



Coastal Zone Management Act

Coastal Zone Management Act of 1972

Purpose: Preserve, protect, develop, and restore the nation's coastal zones by implementing programs that manage both environmental conservation and economic development.



Coastal Zone Management Act and HUD

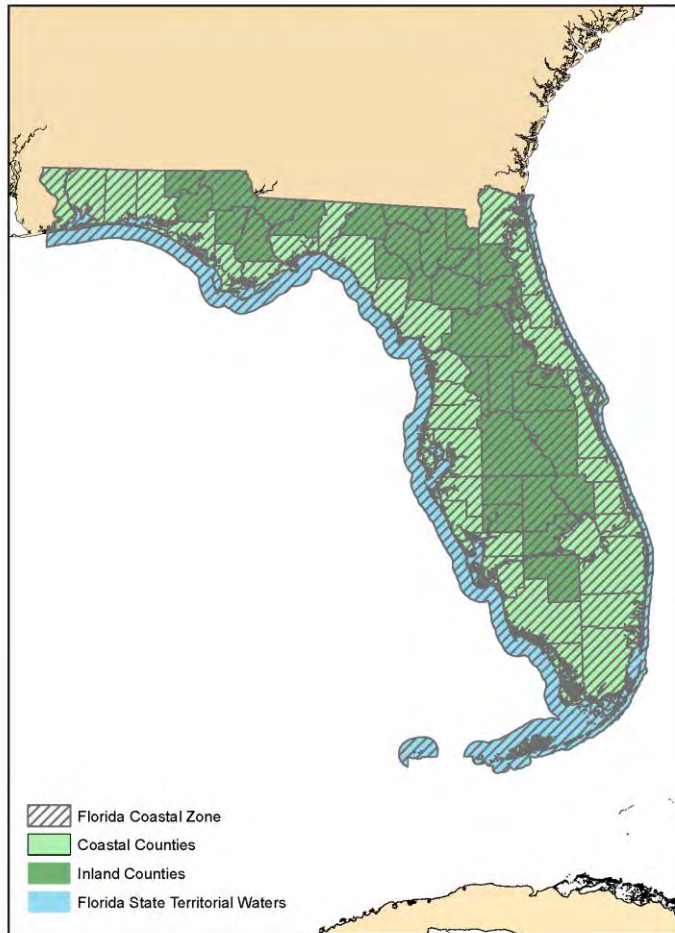
All Federal actions that directly affect a coastal zone must be consistent with approved State Coastal Zone Management Plans



Which States Have Coastal Zone Management Programs?

If your project is in one of the highlighted states or territories, consult the local State Coastal Management Program website to determine if your project is in the designated coastal zone.

Florida Coastal Zone



Coastal Management in Florida

Coastal Management in Florida

The Florida Department of
Environmental Protection
manages the Florida Coastal
Zone Management Program

Website: <https://floridadep.gov/rcp/fcmp>

Coastal Zone Management Compliance

- Florida is a designated coastal zone and therefore all projects are subject to State review. Refer to State Coastal Management Program Website for listed activities.
- If so, is the project consistent with the State's coastal management plan? Work with the State Coastal Management Program to obtain a consistency determination and any permits required.

Document Compliance

- If the project is not within the coastal zone, include the appropriate state Coastal Zone Map with the project location indicated on the map showing it is outside the area of concern.
- If the project is within an area of concern for the coastal zone but not the type of project that will adversely affect coastal zone, document using the exempt activities list from the State Coastal Management Agency.
- If the project is within the area of concerns for coastal zone and requires the State review, include:
 - Request for State review
 - State review or permit
 - Mitigation measures and/or project conditions

Questions?

Flood
Insurance
58.6(a)&(b) &
50.4(b)(1)

HUD Resources

→ HUD Guidance:

<https://www.hudexchange.info/programs/environmental-review/flood-insurance>

→ Flood Insurance Worksheet:

<https://www.hudexchangeinfo/resources/documents/Flood-Insurance-Worksheet.docx>

Flood Insurance

- Flood Disaster Protection Act of 1968
- Flood Insurance Program (NFIP)
- HUD Flood Insurance Requirements

58.6(a) & (b) 50.4(b)(1)

Legal and Regulatory Basis for Flood Insurance Requirements

- Section 202 of the Flood Disaster Protections Act of 1973 (42 U.S.C. 4106) requires that
 - projects receiving federal assistance AND
 - located in an area identified by the Federal Emergency Management Agency (FEMA) as being within a Special Flood Hazard Area (SFHA)
 - be covered by flood insurance under the National Flood Insurance Program(NFIP).

Legal and
Regulatory Basis
for Flood
Insurance
Requirements
(Cont'd)

- In order to be able to purchase flood insurance, the community must be participating in the NFIP.
- If the community is not participating in the NFIP, federal assistance cannot be used in those areas.

Does your
project
involve...

- Financial assistance for
 - Construction
 - Rehabilitation
 - acquisition of a mobile home, building, or insurable personal property
 - purchase of machinery, equipment, fixtures, or furnishings that are insurable under NFIP

NOTE: HUD-assisted projects described above that are located within Special Flood Hazard Areas must have flood insurance protection as a condition of approval.

Exceptions

- A FEMA FIRM shows the project is not located in a SFHA
- Formula grants made to states
- Self-insured, State-owned property
- Loans of \$5,000 or less
- Leasing or rental assistance with repairs, improvements, or acquisition
- Improvements or repairs costing below the NFIP deductible (standard deductible \$5,000)

Flood Insurance Coverage for Loans

For loans, loan insurance or guarantees, the amount of flood insurance coverage must at least equal:

- the outstanding principal balance of the loan OR
- the maximum limit of coverage made available under the National Flood Insurance Program
- whichever is less

Flood Insurance Coverage for Grants

For grants and other non-loan forms of financial assistance, flood insurance coverage must:

- be continued for the life of the building irrespective of the transfer of ownership
- be at least equal to the total project cost or the maximum coverage limit of the National Flood Insurance Program
- whichever is less

National Flood Insurance Program

- If the community is not participating in the NFIP, or if its participation has been suspended → federal assistance may not be used for projects in the Special Flood Hazard Area.
- Insurance is required on the building (not land) and machinery, equipment, fixtures, and furnishings contained within the building.

National Flood Insurance Program

- Grantees/Subrecipients are responsible for ensuring flood insurance is obtained and maintained.
- Grantees/Subrecipients can monitor flood insurance compliance by having the person or organization receiving assistance place the Grantees/Subrecipients office address in the “Second Mortgagee or Other” box on the Flood Insurance Application form.

One-Bite Rule

Federal disaster assistance cannot be offered for a person's property or construction activities **if** the person previously received Federal disaster assistance and failed to maintain flood insurance.

Documentation for the ERR

Must contain on of the following ...

- Documentation supporting the determination that the project does not require flood insurance or is excepted from flood insurance
- A FEMA FIRM with project not located in a Special Flood Hazard Area
- A FEMA FIRM with project location and a copy of the flood insurance policy declaration or a paid receipt for the current annual flood insurance premium and a copy of the application for flood insurance

Questions?



Airport Hazards—24 CFR Part 51 Subpart D

**Part 58.5(i)(1) &
50.4(k)**

HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/airport-hazards>
- Airport Hazard Worksheet:
<https://www.hudexchange.info/resources/documents/Airport-Hazards-Worksheet.docx>

HUD Requirements

- Part 58.5(i)(1) & 50.4(k) require compliance with HUD's Environmental Criteria and Standards of 24 CFR Part 51
- Subpart D—Siting of HUD Assisted Projects in Runway Clear Zones, Clear Zones, and Accident Prevention Zones
- Purpose: To prevent incompatible development around civil airports and military airfields

HUD Policy [24 CFR Part 51.303]

- It is HUD's policy not to provide any assistance, subsidy, or insurance for projects located in:

- Civilian Airport Runway Clear Zones

Area immediately beyond the ends of FAA civilian airport runways.

- Military Airfield Clear Zone

Area immediately beyond the end of military airfield runways.

- Military Airfield Accident Potential Zones

Area immediately beyond the Clear Zone of military airfields.

Types of Activities Covered under Part 51- Subpart D

- For HUD assisted projects including:
 - Construction
 - Land development
 - Community development
 - Redevelopment
 - Facilities or services to make land available for construction
 - Substantial rehabilitation

Activities Partially Covered or to Which Part 51-Subpart D Does Not Apply

- Only 51.202(b) Buyer Notification Requirements apply to activities involving:
 - Purchase, sale or rental of an existing property which does not prolong the physical or economic life of the property
- Subpart D does not apply to:
 - minor rehab which does not prolong the life of a structure
 - Research or demonstration projects that do not involve construction or rehab
 - Interstate land sales registration
 - Actions or emergency assistance provided to save lives, protect property, and protect public health and safety
 - Debris and wreckage removal

CIVILIAN AIRPORT HAZARDS

Civilian Airports Defined As

- Existing commercial service airports
- Designated in the Federal Airport Administrations National Plan of Integrated Airport Systems (NPIAS)
http://www.faa.gov/airports/planning_capacity/npias/reports/

Evaluating Civilian Airport Hazards

58.5(i)(1) & 50.4(k)

- Must Determine Whether the Project is within a Runway Clear Zone (RCZ):
 - Area immediately beyond the end of a runway
 - Now termed Runway Protection Zones (RPZ)
- Determine whether the project is within 2,500 feet of the end of a runway.
- If the project is more than 2,500 feet but still in close proximity to the end of the runway, check to see if airport expansion will place project within 2,500 feet of the expanded runway
 - Obtain the “Airport Layout Plan” which shows RCZ from airport operator or FAA Regional Office
- If the project is not within 2,500 feet of the end of an existing or future runway, then:
 - Compliance is complete
 - Include map documenting proximity of airport to project site in the ERR

If the Project is Located within 2,500 Feet of the End of a Civilian Airport Runway

- Obtain written finding from Airport Operator as to:
 - Whether the project is in an RCZ/RPZ
 - Whether there are airport expansion plans over the next 10 years that would affect the RCZ/RPZ
- If the finding confirms the project is not or will not within 10 years be located within a RCZ/RPZ, compliance is complete
 - Include written finding in ERR

If the Project is Located in a RCZ/RPZ or if it May Be in 10 Years

- But, it will not be frequently occupied or used by people
 - Obtain written documentation from the Airport Operator that there are no plans to purchase the property as part of a RCZ/RCA land acquisition program
- If the project will frequently be used or occupied by people, ***HUD assistance cannot be used.***

MILITARY AIRFIELD HAZARDS

Military Airfields

- **Must Determine whether Project is located in a Clear Zone or Accident Potential Zone**
- **Clear Zones (CZ)**—high potential for accidents and have traditionally been acquired by the Government to protect people on the ground.
- **Accident Potential Zone I (APZ I)**--is the area beyond the clear zone which possesses a significant potential for accidents.
- **Accident Potential Zone II (APZ II)**--area beyond APZ I having a measurable potential for accidents.

Military Bases in the Continental United States

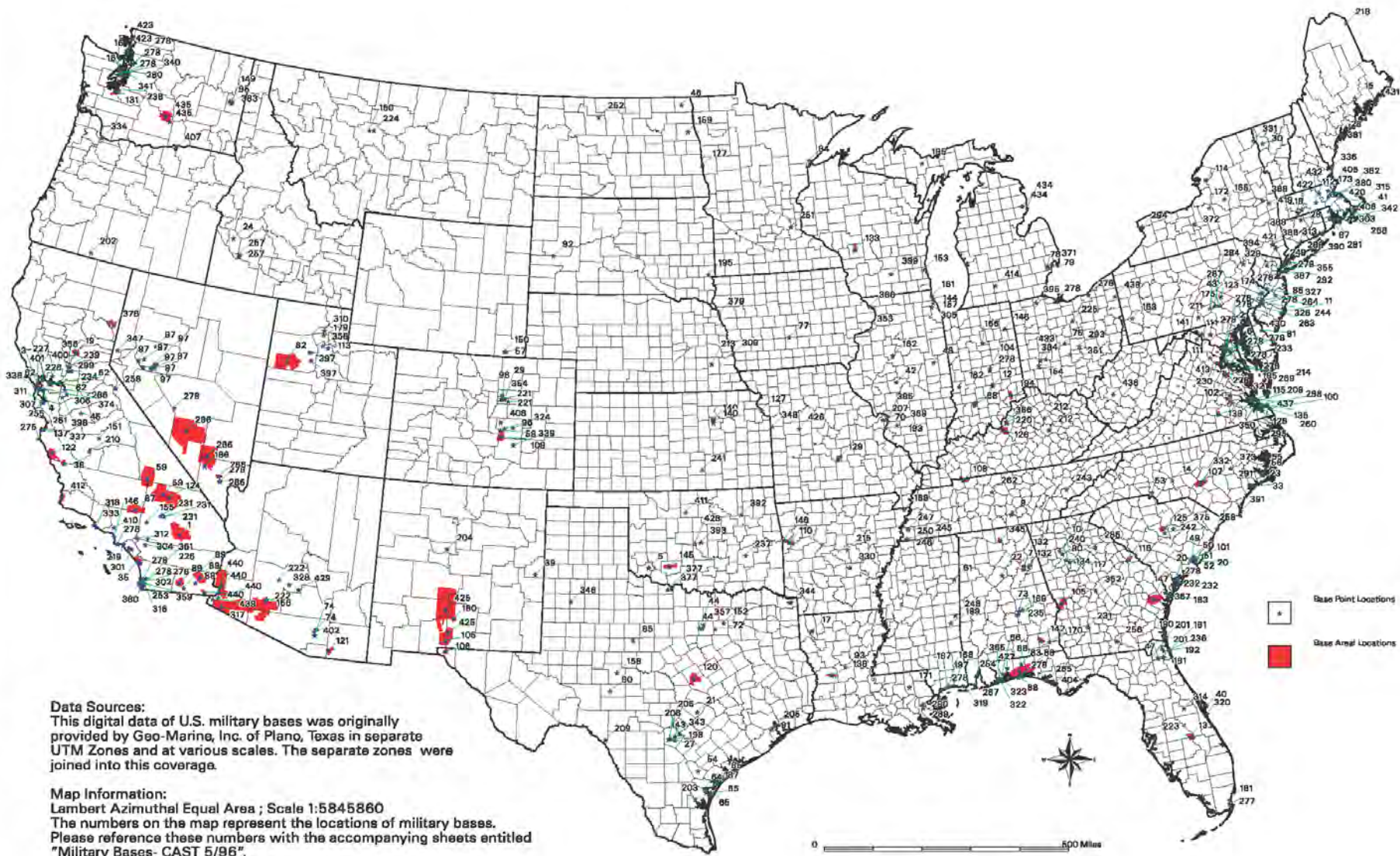
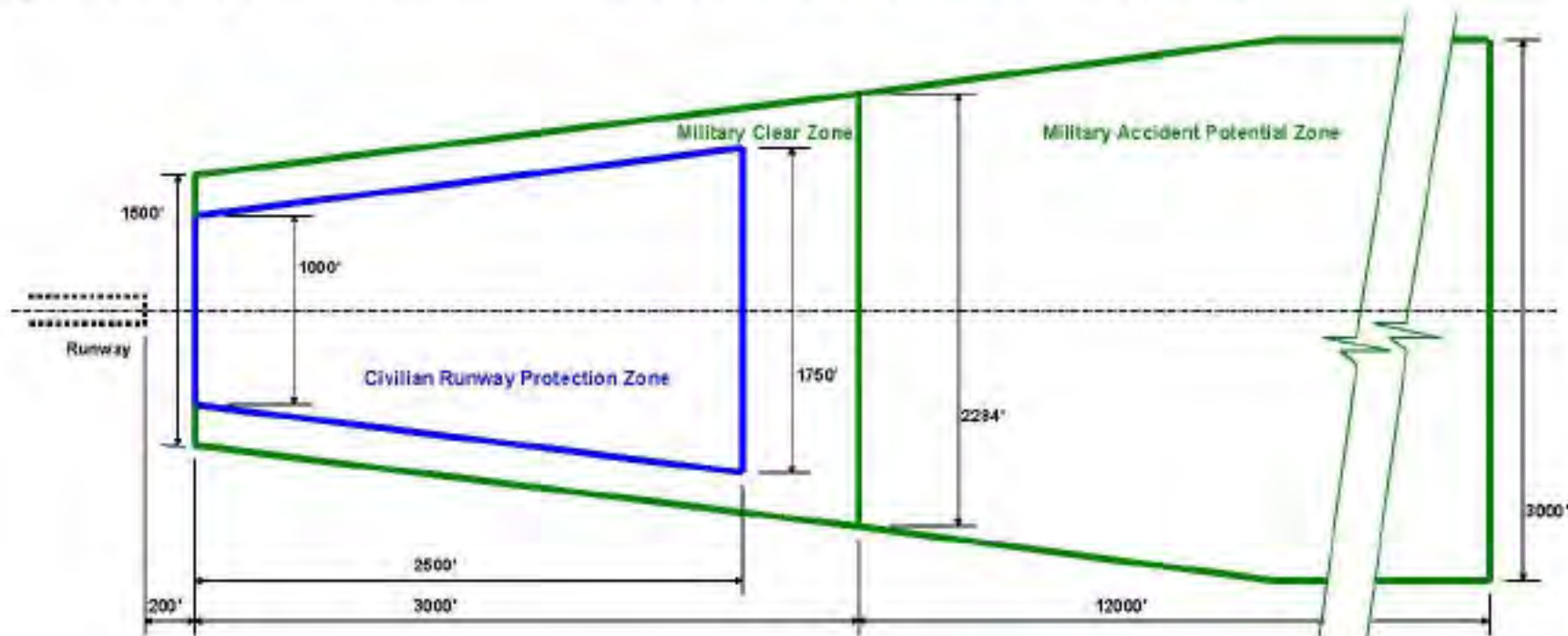


Figure RPZ1—Significant Dimensions and Comparison of Civilian to Military Zones



Airport Type	Runway Protection Zone/Clear Zone Length	Runway Protection Zone/Clear Zone Inner Width	Runway Protection Zone/Clear Zone Outer Width	Accident Potential Zone Length	Accident Potential Zone Inner Width	Accident Potential Zone Outer Width
Civilian	2,500'	1,000'	1,750'	NA	NA	NA
Military	3000'	1,500'	2,284'	12,000'	2,284'	3,000'

SOURCE: Fact Sheet D#1 Siting HUD Assisted Projects in Accident Potential Zones

Evaluating Military Airfield Hazards

- Determine whether your project is within 15,000 feet of a military airfield
 - <http://www.globalsecurity.org/military/facility/conus.htm>
- If it is not, compliance is complete
 - Include a map showing the project's proximity to the military airfield in the ERR

If the Project is Within 15,000 feet of a Military Airfield

- Obtain either:
 - Obtain Air Installation Compatibility Use Zone (AICUZ) map showing that site is not within a designated CZ or APZ; or
 - Letter from the military air installation environmental planning staff so stating
- If an airport expansion or change in operations planned, future CZ or APZ must be used to determine compliance
- Include map or statement in ERR, and you are done.

If the Project is Located in an CZ

- But will not be frequently used or occupied by people
 - Obtain written documentation from the Airport Operator that there are no plans to purchase the property as part of a CZ/APZ land acquisition program
- If the project will be frequently used or occupied by people, ***HUD assistance cannot be used***

If the Project is Located in an APZ

- It is HUD's policy to discourage HUD assistance in APZs
- To be approved, the project must be consistent with Land Use Compatibility Guidelines for Accident Potential Zones chart of Department of Defense Instruction 4165.57, 32 CFR Part 256.

<http://www.dtic.mil/whs/directives/corres/pdf/416557p.pdf>



**Buyer Notification Requirements for Runway
Clear Zones and Clear Zones of 24 CFR Part
51.303(a)(3)**

Runway Clear Zone and Clear Zone Buyer Notification Requirements

- Applies to all HUD Projects
- Requirements apply to HUD assistance, subsidy, insurance or sale of an existing property located:
 - Civilian Runway Clear Zone: 2,500 feet of the end of a runway
 - Military Clear Zone: 15,000 feet of the end of an airfield runway
- RE must advise buyers:
 - When property is in these types of zones
 - What the implications are
 - That the property may be acquired by the airport operator at a later date
- Buyers must sign a statement acknowledging receipt of this information

**NOTICE TO PROSPECTIVE BUYERS OF PROPERTIES LOCATED
IN RUNWAY CLEAR ZONES AND CLEAR ZONES**

In accordance with [24 CFR 51.303\(a\)\(3\)](#), this Notice must be given to anyone interested in using HUD assistance, subsidy or insurance to buy an existing property which is located in either a runway Clear Zone¹ at a civil airport or a Clear Zone at a military installation. The original signed copy of the Notice to Prospective Buyers must be maintained as part of the project file on this action. [Instruction: fill out the area shown in parentheses below.]

The property that you are interested in purchasing at (Insert: street address, city, state, zip code) is located in the Runway Clear Zone/Clear Zone for (Insert: the name of the airport/airfield, city, state).

Studies have shown that if an aircraft accident were to occur, it is more likely to occur within the Runway Clear Zone/Clear Zone than in other areas around the airport /airfield. Please note that we are not discussing the chances that an accident will occur, only where one is most likely to occur.

You should also be aware that the airport/airfield operator may wish to purchase the property at some point in the future as part of a clear zone acquisition program. Such programs have been underway for many years at airports and airfield across the country. We cannot predict if or when this might happen since it is a function of many factors, particularly the availability of funds but it is a possibility.

We want to bring this information to your attention. Your signature on the space below indicates that you are now aware that the property you are interested in purchasing is located in a Runway Clear Zone/Clear Zone.

Signature of prospective buyer

Date

Typed or printed name of prospective buyer



¹ Also referred to as runway protection zone.

Documentation for the ERR

Must contain one of the following...

- Map with project location showing proximity to civilian airport runway and military airfield runway
- Written documentation from the Airport Operator.
- If project is located within RCZ/CZ, copy of buyer notification

QUESTIONS?



Wild and Scenic Rivers §58.5(f) & §50.4(f)

Contents



- Background
- Categories of Rivers
- Compliance Requirements
- ERR Documentation

HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/wild-and-scenic-rivers>
- Wild and Scenic Rivers Worksheet:
<https://www.hudexchange.info/resources/documents/Wild-and-Scenic-Rivers-Worksheet.docx>

Congress Passed the Wild and Scenic Rivers Act of 1968

“....certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations....”



National Wild and Scenic Rivers System



- The Act established the *National Wild and Scenic Rivers System* (NWSRS)
- Rivers - and segments of rivers - are *classified* as **wild, scenic, or recreational**
- Designation of a river into the NWSRS does not halt use of a river; instead, the goal is to preserve the character of a river
- Uses that are compatible with management goals are allowed

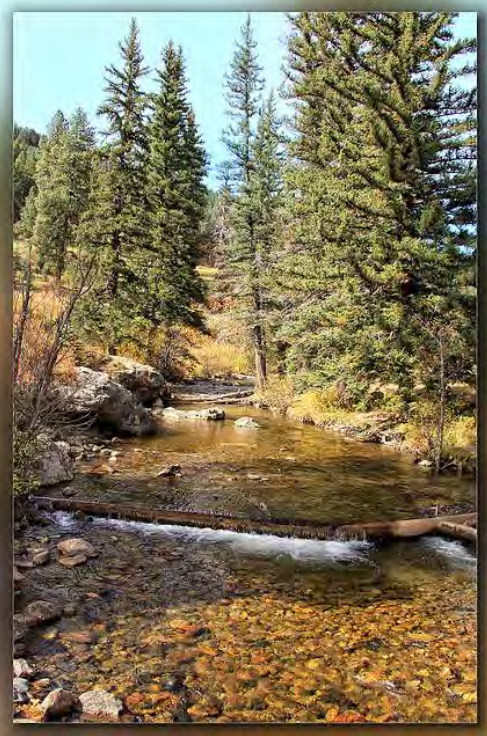
Is your project within proximity of a NWSRS river as defined below?

Categories of Protected Rivers

- **Designated Rivers** – Rivers designated as a Wild and Scenic River and their tributaries are protected under Section 7(a) of the Act and included in the NWSRS: <https://www.rivers.gov/map.php>
- **Study Rivers** – potential additions to the NWSR and are protected under Section 7(a) of the Act: <http://www.rivers.gov/study.php>
- **Nationwide Rivers Inventory (NRI) list** – Rivers included on the inventory list are believed to possess one or more "outstandingly remarkable" natural or cultural values with more than local or regional significance are protected under Section 5 (d) of the Act: <http://www.nps.gov/ncrc/programs/rtca/nri/>



HUD Region VI Protected Rivers



- Florida
 - Designated WSR – 2
 - Inventory - 9
- No Study Rivers in Region IV

If so, is your project a water resources project?

- A water resources project is a federally assisted project that could affect the free-flowing condition of a wild and scenic river.
- Examples include dams, water diversion projects, bridges, roadway construction or reconstruction, boat ramps, and activities that require a Section 404 permit from the Army Corps of Engineers.



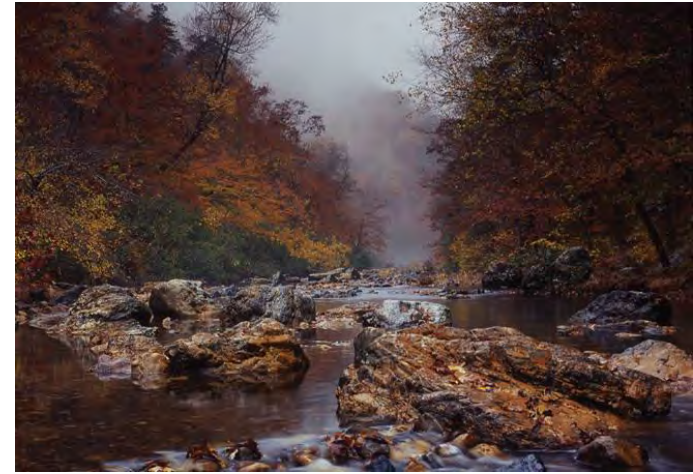
If so, could the project do any of the following?



- Have a direct and adverse effect within wild and scenic river boundaries
- Invade the area or unreasonably diminish the river outside wild and scenic river boundaries
- Have an adverse effect on the natural, cultural, and/or recreational values of an NRI segment

Consultation Requirements

- Consultation with the appropriate federal, state, local, and/or tribal Managing Agency is required, pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect on a wild and scenic river or a study river and, if so, to determine the appropriate avoidance or mitigation measures.
- The Managing Agency for a particular river segment generally is the National Park Service, the Bureau of Land Management, U.S. Forest Service, or U.S. Fish and Wildlife Service; for some river segments, a state agency, tribe, or a local government may also be a Managing Agency.
- For rivers listed in the NRI, the National Park Service (NPS) is the point of contact. Under Section 5 of the Act, the NPS can provide recommendations that the Responsible Entity must take into account in protecting the listed river segment.



ERR Documentation

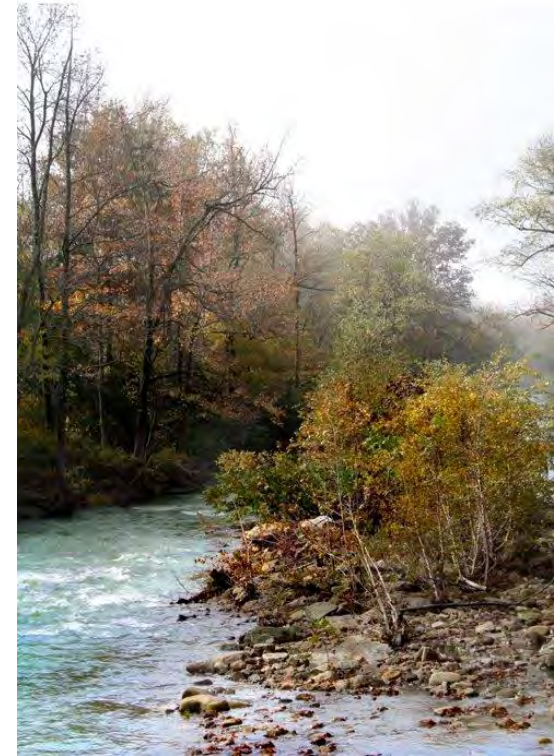
The environmental review record should contain one of the following:

- Evidence the proposed action is not within proximity to a designated Wild, Scenic, or Recreational River
 - **Map** showing proximity to nearest NWSR
- Documentation that contact was made with the Federal (or state) agency that has administrative responsibility for management of the river and that the proposed action will not affect river designation or is consistent with the management and land use plan for the designated river area



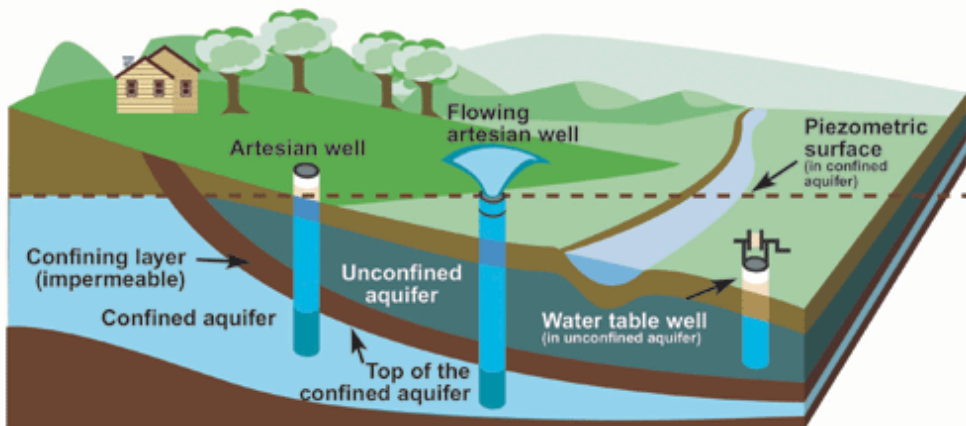
*Summarize environmental concerns and incorporate mitigation in the Environmental Review Record (ERR)

Questions?



Sole Source Aquifers §58.5(d) & §50.4(d)

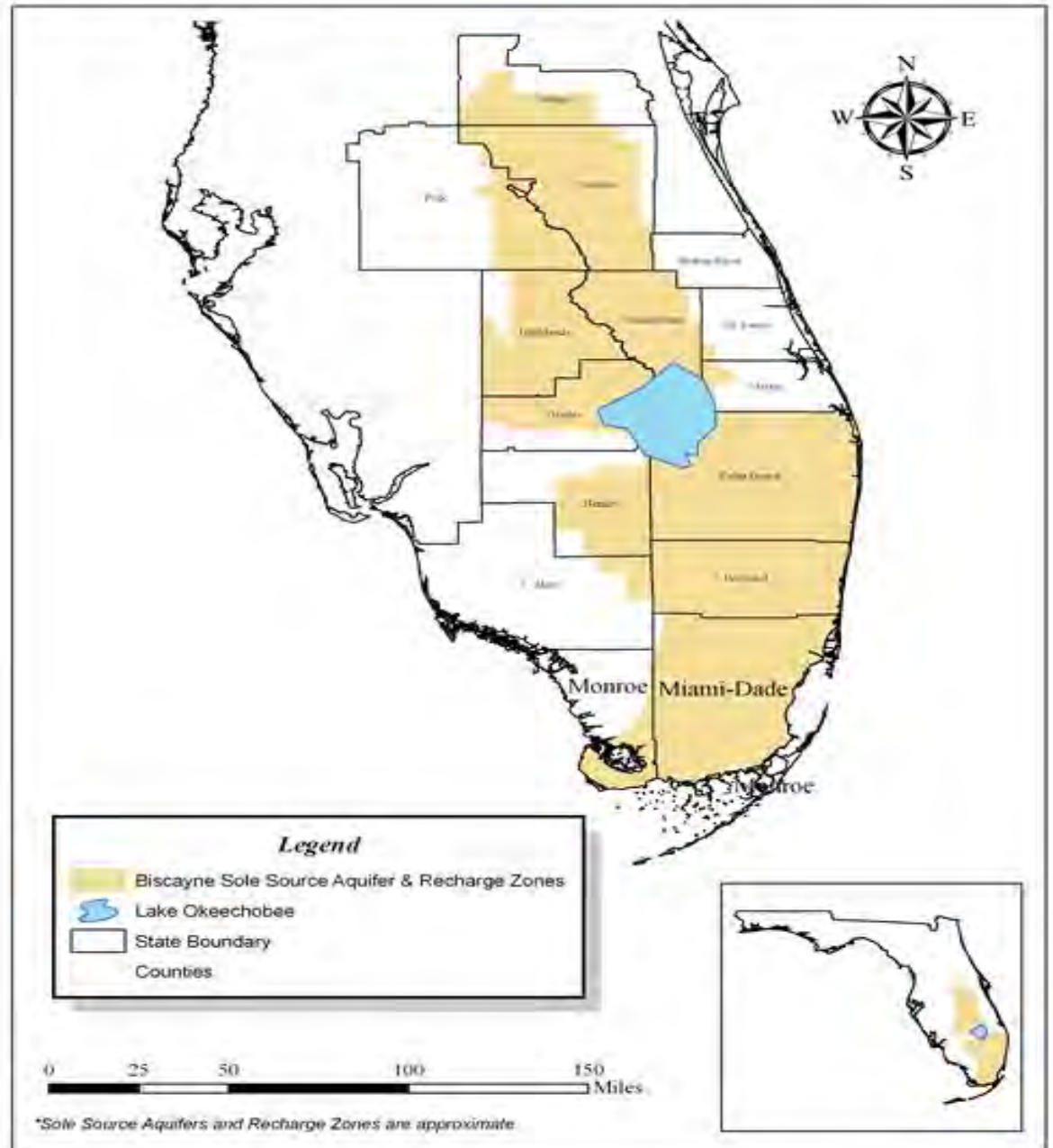
Aquifers and wells



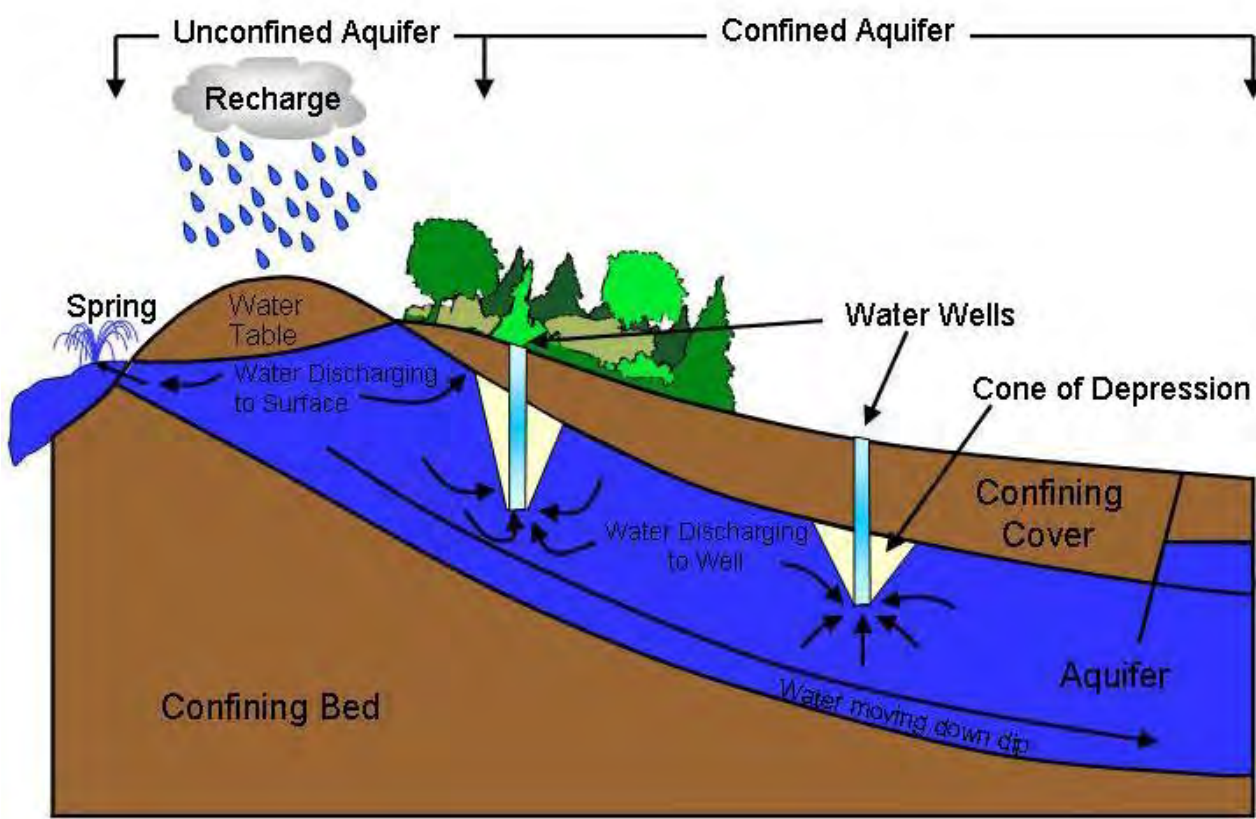
What is a Sole Source Aquifer?

According to the Safe Drinking Water Act (SDWA):

- § A **Sole Source Aquifer** supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer
- § No physically, legally, and economically-available alternatives for drinking water exist
- § Federal assistance is **prohibited** for projects that might contaminate an aquifer designated as SSA, based on EPA review of the proposed activity

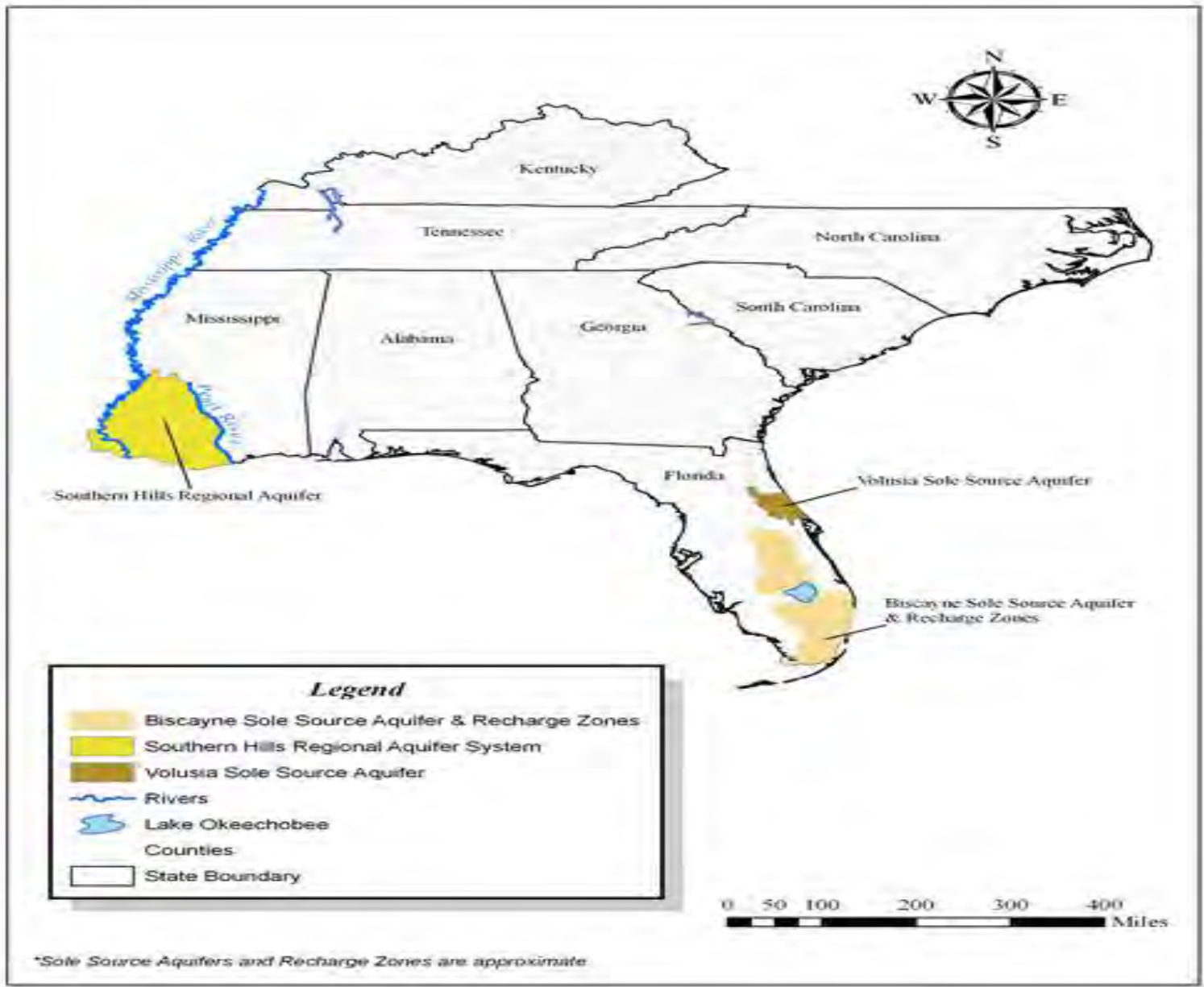


A single, confined aquifer serving a community..



- And the primary or only source of drinking water for that community

Aquifer = a geologic formation that contains water in quantities sufficient to support a well or spring



Federal and state general responsibilities...



- SSA designation protects an area's ground water
- EPA Region IV Sole Source Aquifer Contact:
Larry Cole, Environmental Scientist
GW/UIC Section
Sole Source Aquifer Coordinator
Ground Water/UIC [6WQ-SG]
U.S. EPA / Region 4
Direct: (404) 562-9474
Cole.Larry@epa.gov

Key Project Types That Could Have an Adverse Effect on Sole Source Aquifers

Project located in whole or in part within a Sole Source Aquifer will be referred to the EPA for formal review and comment:

- New construction and rehabilitation of which will involve individual disposal systems:
 - Cesspools
 - Septic Tanks with Leach Fields or Seepage Areas
 - Pit Toilets
 - Privately owned sewerage systems, including those of homeowner's association
- Projects that manufacture, store, transport, spreads or disposes of toxic, noxious or hazardous chemicals or radioactive materials, including insecticides, fungicides, and fertilizers

Key Types of Projects that Could Have and Adverse Effect on Sole Source Aquifers (Cont'd)

- Projects involving acquisition, disposition, rehabilitation, new construction of:
 - Sanitary Landfills
 - Facility or operation which disposes of its wastewater into dry wells, retention ponds, or methods other than a treatment plant.
 - ***Parking facilities exceeding 200 automobiles***
 - Storm water drainage facilities
- Any project or activity involved in agricultural activities or production, raising, processing and marketing of crops or livestock.
- Any other project or activity which HUD determines might be a potential source of contamination to the aquifer.

Example
Mitigation
Measures and
Conditions
for Projects
with
Identified SSA
Impacts

- § Design improvements
- § Ground water monitoring
- § Maintenance and educational activities
- § Coordination of ground water protection activities among State and local environmental and public health protection agencies

Documentation for the ERR

- If the project is **not within an area of concern** for SSA's
 - Include a Region 6 SSA Map with the project location indicated on the map showing it is outside the area of concern
- If the project is **within an area of concern for SSA's but not the type of project** that will adversely affect SSA's, include a statement describing as such in the ER and refer to the MOU.
- If the project is **within the area of concerns for SSA's and requires EPA review**, include:
 - Request for EPA review
 - EPA review
 - All mitigation measures and project conditions must be included in the mitigation section of the ER.




HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/sole-source-aquifers>
- SSA Worksheet:
<https://www.hudexchange.info/resources/documents/Sole-Source-Aquifers-Worksheet.docx>

Questions?



A dramatic sky with a large white cloud, a bird in flight, and two smokestacks at the bottom left. The sky is a mix of blue, purple, and red, suggesting a sunset or sunrise. The cloud is large and billowing, with a bird flying in front of it. Two smokestacks are visible in the bottom left corner, emitting a faint plume of smoke.

Air Quality

58.5(g) & 50.4(h)

HUD Resources

- HUD Guidance:

<https://www.hudexchange.info/programs/environmental-review/air-quality>

- Air Quality Worksheet:

<https://www.hudexchange.info/resources/documents/Air-Quality-Worksheet.docx>

New York City: 1973 vs. 2013



Source: EPA Documerica "Then and Now Challenge"

Clean Air Act (CAA) of 1970— Criteria Pollutants

- CAA is a comprehensive Federal law that regulates air emissions
- It's provisions cover:
 - Ambient Air Quality for stationary and mobile sources
 - Air Toxics
 - Acid rain
 - Ground-level ozone
 - Stratospheric ozone depletion

Compliance with Ambient Air Standards

- Generally concerned only with projects that require an EA or EIS level of review
- Types of activities that would not likely contribute to non-attainment of the NAAQS
 - Single family housing projects 5 or fewer dwelling units
 - Housing Rehabilitation
 - Play ground improvements
- Focus on projects that either
 - Increase traffic, OR
 - Increase power generation

Compliance with Ambient Air Standards

- Federal projects must conform to Clean Air Act requirements if they may constitute a significant new source of air pollution.
- If your project does not involve new construction or conversion of land use, it can be assumed that its emissions are below de minimis levels and the project is in compliance with the Act.

National Ambient Air Quality Standards (NAAQS)

- Ambient – the air we breathe
- EPA sets NAAQS limits on how much of a pollutant can be in the air anywhere in the United States – 40 CFR Part 50
- States take on the responsibility of implementing the Act.

National Ambient Air Quality Standards (NAAQS)

- National ambient air quality standards set for criteria pollutants which include:
 - ground-level ozone (smog)
 - particulate matter
 - carbon monoxide
 - lead
 - nitrogen dioxide
 - sulfur dioxide

- Based on Averaged Concentrations Applied to the General Population within a Geographic Area
- Major sources: Industrial Plants and Automobile Traffic

STEP 1. Determine Whether the Project is Located in a NAAQS Non-Attainment or Maintenance Area

- **For new construction projects or changes in land use.**
- **Currently Designated Nonattainment Areas for All Criteria Pollutants (EPA, March 2012)**
<http://www.epa.gov/oaqps001/greenbk/>
- **If not in a non-attainment area, the project is in compliance with the Clean Air Act and compliance is complete.**

STEP 2. If the Project is Located in a Non-Attainment Area

- Obtain a letter of consistency with the State Implementation Plan from the State oversight agency and include in the ERR; or,
- Permitting and compliance actions (e.g., air modeling) may be required in order to conform with the SIP

State Implementation Plans for Non-Attainment Areas

- NAAQS permitting program is generally delegated to states
 - Hold hearings on permit applications by power companies, chemical companies, etc.
 - Involve the public, through hearings and opportunities to comment
 - Fine companies for violating air pollution limits
- State Implementation Plans (SIP) - a federally enforceable plan for each state which identifies who that state will attain and/or maintain the primary and secondary NAAQS as set forth in Section 109 of the CAA
 - States that have designated Non-Attainment areas must submit a SIP to EPA for approval
 - Explains how the State will comply with NAAQS

Projects Must Conform to State Implementation Plans

- **Statutory Test for Conformance** [CAA Sec. 7506(c)(1)(B)(i)-(iii)] -- The Project Will Not:
 - **Contribute** to any new violation of any standards in any area
 - **Increase** the frequency or severity of any existing violation of any standard in any area; or
 - **Delay** timely attainment of any standard or any required interim emission reductions or other milestones in any area”

STEP 3. Mitigate Impacts

- Mitigation is required to bring project into compliance if emissions exceed:
 - De minimis emissions levels for pollutants in Non-attainment
 - Maintenance levels necessary to avoid Non-attainment
 - State NAAQS screening levels
- If emissions cannot be mitigated, then, federal funds may not be used
- Conditions that are required for conformance must be included in Environmental Review as a Project Condition
- Must be noted in the Mitigation section of EA checklist

Letter From Florida Department of Environmental Protection (FDEP)

- Good for two years for projects of similar size and scale
- Project types include:

Water/Wastewater Improvements

- Water pipeline extension, new booster pump station
- Installation of transmission pipelines and distribution mains
- New water wells with associated appurtenances
- Replacement of pump stations

Flood and Drainage Improvements

- Construction of a storm drain mainline
- Installation of box drains and culverts
- Construction of detention basins
- Riverbank stabilization

Street Improvements

- Extension of existing street approximately 2600 feet (including intersections)

Public Facilities

- Demo and removal of existing asphalt and construction of a two-story administration building
- Demo of existing structures and construction of a new customer service and community center

Housing

- Construction of mixed-use multifamily developments
- Development of new residential subdivisions

A blue-tinted photograph of a cloudy sky. In the bottom left corner, two dark smokestacks are visible, emitting a large, billowing white cloud that fills much of the upper half of the frame. The sky is a deep, uniform blue. The word "QUESTIONS?" is written in white, serif, all-caps font across the upper middle of the image.

QUESTIONS?

Farmland Protection

24 CFR Part 58.5(h) & 50.4(j)

- **Background**
- **Farmlands Process**
- **ERR Documentation**



HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/farmlands-protection>
- Farmlands Worksheet:
<https://www.hudexchange.info/resources/documents/Farmlands-Protection-Worksheet.docx>



Background

National Agricultural Land Study of 1980-81 found that millions of acres of farmland were being converted in the United States each year.

The 1981 Congressional report, *“Compact Cities: Energy-Saving Strategies for the Eighties,”* identified:

- the need for Congress to implement programs and policies to protect farmland and
- combat urban sprawl and
- the waste of energy and resources that accompanies sprawling development.

Farmland Protection Policy Act (FPPA)

The Compact Cities report indicated that much of the sprawl was the result of programs funded by the Federal Government. With this in mind, Congress passed the Agriculture and Food Act of 1981 (Public Law 97-98) containing the **Farmland Protection Policy Act (FPPA)** — Subtitle I of Title XV, Section 1539-1549

FPPA was intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

Farmlands Process

Step 1: Determine whether project is a type that could convert farmland

- If *no* new construction or acquisition of undeveloped land, project is in compliance.

Step 2: Determine if the site is “committed to urban development.”

- If project is in an “urban” area, it is exempt and the project is in compliance.

Step 3: Determine if the site contains Important Farmland

- If there is no Important Farmland on the site, the project is in compliance.

Step 4: If there is Important Farmland on the site, consult with the NRCS and complete AD-1006, “*Farmland Conversation Impact Rating.*”

Step 1: Determine Type of Project

Does the project involve new construction or acquisition of undeveloped land?

- If not, the project is exempt and in compliance.
- If yes, continue to Step 2.

*Construction limited to on-farm structures needed for farm operations and minor secondary structures, such as a garage or shed, are exempt from the FPPA.



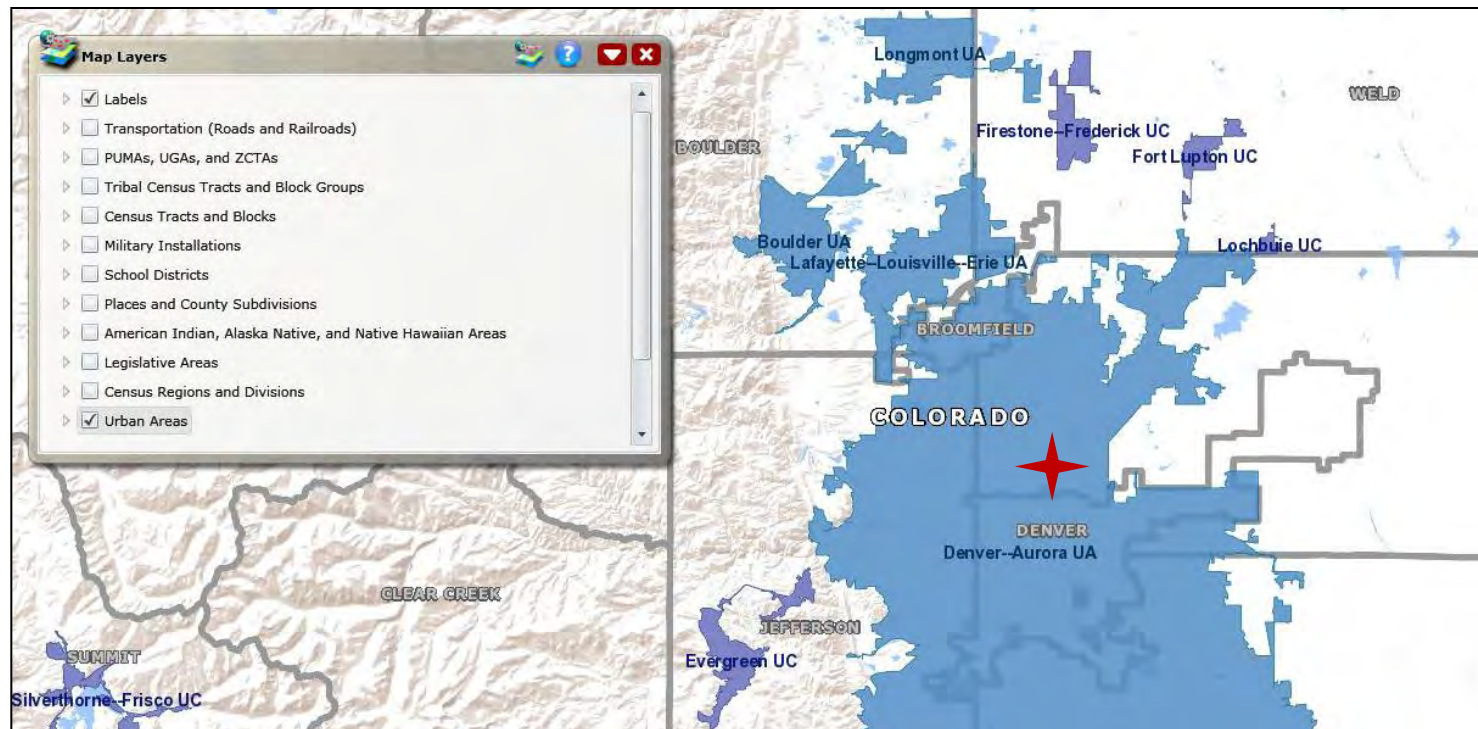
Step 2: Is the Site Committed to Urban Development?

Exceptions for land “committed to urban development”:

- Designated urban areas on Census Bureau maps

<http://tigerweb.geo.census.gov/TIGERweb2010/>

* If the project is in a designated urban area on the Census Bureau map, then the project is exempt and in compliance.



Step 3: Identify Important Farmlands

- For the purpose of FPPA, **“Important Farmland”** includes:
 - Prime farmland
 - Unique farmland
 - Farmland of statewide or local importance
- Land that is not actively being farmed may still be Important Farmland.

To identify Important Farmland, check the Web Soil Survey:
<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

Step 3: Identify Important Farmlands

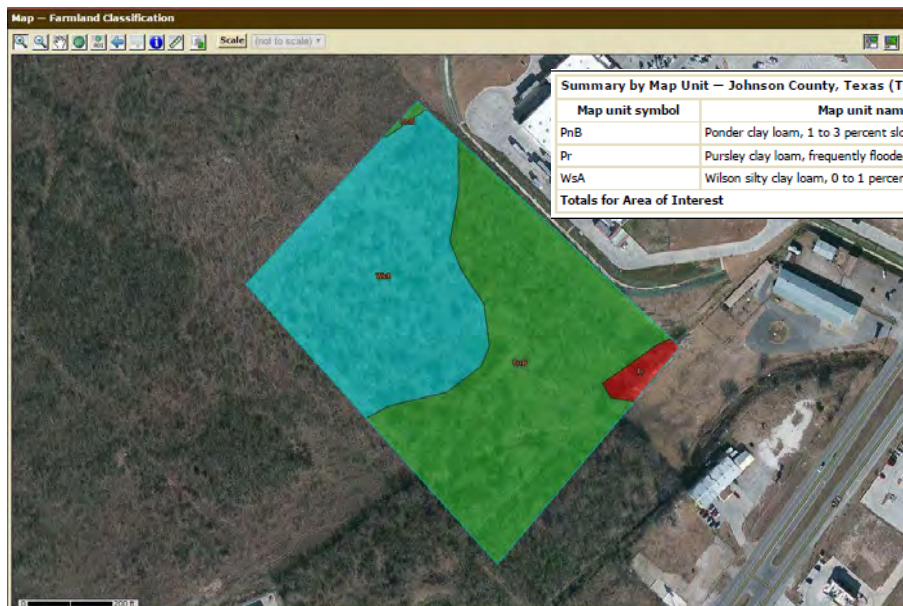
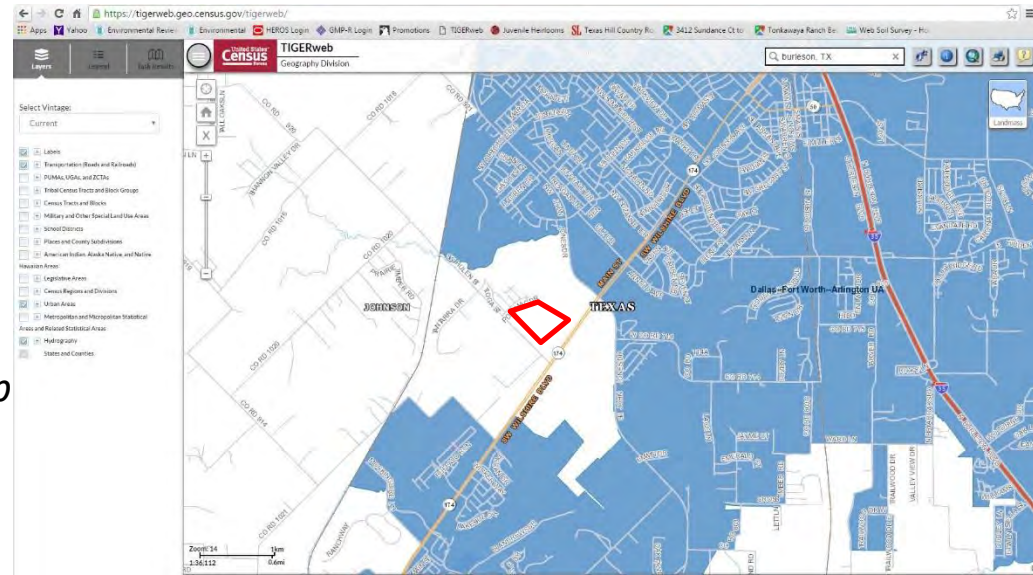


Web Soil Survey map showing no Important Farmland

Step 3: Identify Important Farmlands

Right: Census Bureau map showing not in an urban area.

Below: Web Soil Survey map showing Important Farmland



Summary by Map Unit - Johnson County, Texas (TX251)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
PnB	Ponder clay loam, 1 to 3 percent slopes	All areas are prime farmland	6.8	50.2%
Pr	Pursley clay loam, frequently flooded	Not prime farmland	0.2	1.1%
WsA	Wilson silty clay loam, 0 to 1 percent slopes	Farmland of statewide importance	6.6	48.7%
Totals for Area of Interest			13.6	100.0%

Step 4: Consultation

If the project is not exempt, and there is Important Farmland on the site, consultation with NRCS is required.

Complete Form AD-1006, *“Farmland Conversation Impact Rating.”*

https://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=stelprdb1045394&ext=pdf

Land Evaluation/Site Assessment (LESA) scores of higher than 160 require alternatives to be evaluated.

ERR Documentation

For projects exempt from FPPA...

- Document why project is exempt
 - Exempt activity (e.g. building rehab)
 - Exempt location (e.g. land identified as Urban Area)
 - Project not on Important Farmland (Soil map)

If the project is not exempt...

- Evidence of consultation with NRCS
- Form AD-1006, “Farmland Conversation Impact Rating.”
- Alternatives considered

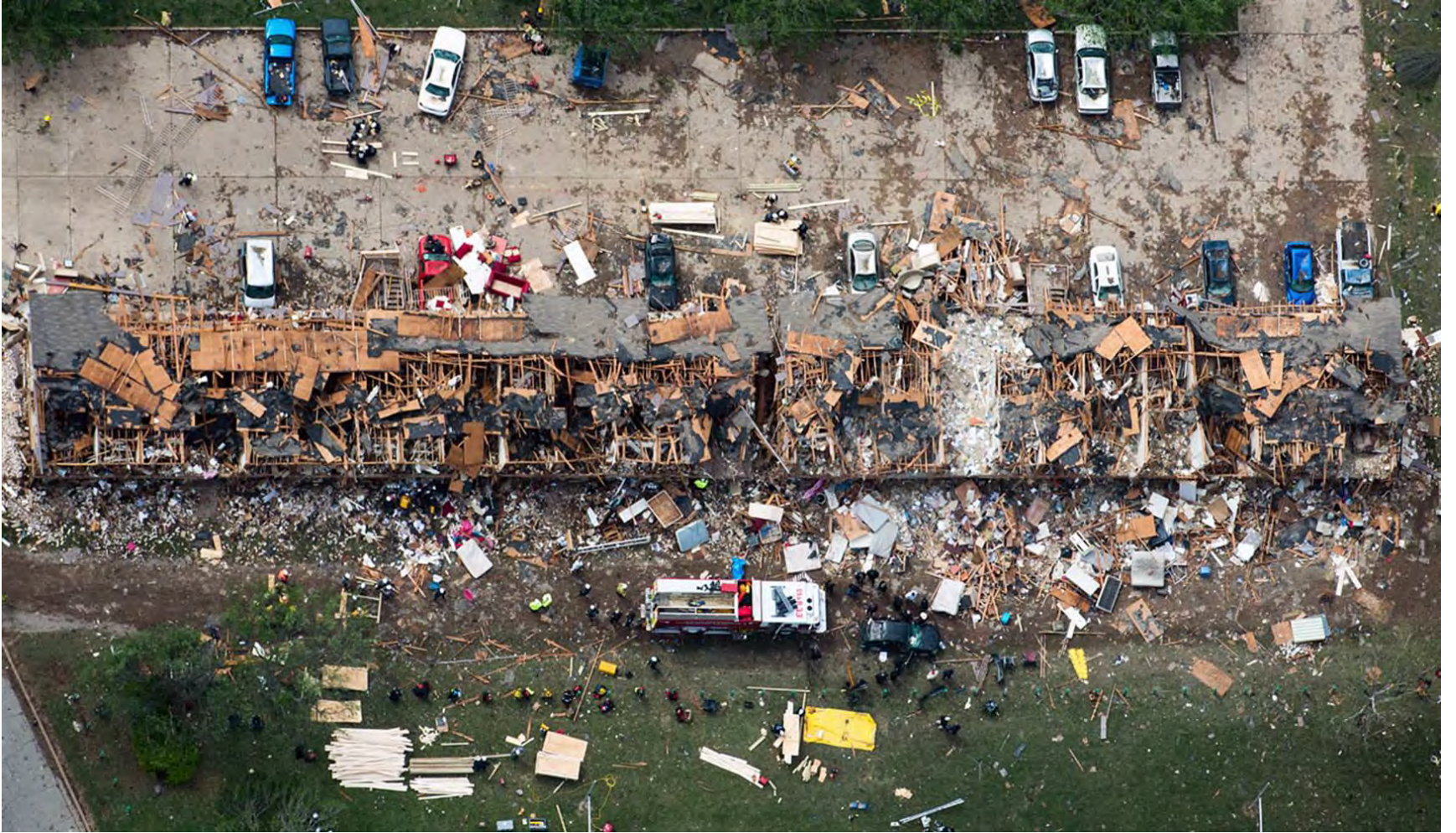
<https://www.hudexchange.info/environmental-review/farmlands-protection>



Questions?

Explosive &
Flammable
Operations
24 CFR
58.5(i)(1)





HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/explosive-and-flammable-facilities>
- Explosives and Flammables Worksheet:
<https://www.hudexchange.info/resources/documents/Explosive-and-Flammable-Facilities-Worksheet.docx>

24 CFR Part 51 - Subpart C

- “Siting of HUD-Assisted Projects Near Hazardous Facilities”
- Rule addresses distance of HUD-assisted development from stationary commercial/industrial facilities which handle chemicals or petrochemicals of explosive or flammable nature – **above ground storage tanks (ASTs) with a capacity of 100 gallons or more.**



§ 51.201 Defines Hazardous Substance As:

Petroleum products and chemicals that can produce blast overpressure or thermal radiation levels in excess of the safety standards.

HUD's Safety Standards:

- **Fire:** Thermal Radiation
 - Structures – 10,000 BTU /Ft. sq Hr.
 - People - 450 BTU/Ft. sq Hr.
- **Explosion:** Blast Overpressure
 - Blast Overpressure (explosion) – 0.5 PSI



Where do
these come
from?

10,000 btu/sf/hr – wooden buildings
will not catch fire for at least 15
mins, allowing fire dept. response

450 btu/sf/hr – humans will only
experience acceptable pain with a
limited detrimental effect

0.5 psi (3.45 kPa) – overpressure
shock wave above this threshold can
begin to shatter windows or injure
organs

Example from sample fire code

Example from standard fire code:

- “For LPG (propane) tanks up to 2,000 gallons, the safety set back requirements are:
 - The distance from buildings with other than fire resistive walls shall be 25 feet [*HUD ASD at 2,000 gal = 70 ft*]
 - The distance from outdoor places of public assemblies, including school yards, athletic fields, and playgrounds shall be 50 feet [*HUD ASD at 2,000 gallons = 369 ft*].”

Hazardous Substances: Hazardous Liquids

Appendix I Subpart C

Acetic Acid	Butyl Alcohol	Ethyl Acetate	Isobutyl Acetate	Naptha
Acetic Anhydride	Carbon Bisulfide	Ethyl Acrylate	Isobutyl Alcohol	Pentane
Acetone	Carbon Disulfide	Ethyl Alcohol	Isopropyl Acetate	Propylene Oxide
Acrolonitrile	Cellosolve	Ethyl Benzene	Isopropyl Alcohol	Toluene
Amyl Acetate	Cresols	Ethyl Dichloride	Jet Fuel and Kerosene	Vinyl Acetate
Amyl Alcohol	Crude Oil (Petroleum)	Ethyl Ester	Methyl Alcohol	Xylene
Benzene	Cumene	Gasoline	Methyl Amyl Alcohol	
Butyl Acetate	Cyclohexane	Heptane	Methyl Cellosolve	
Butyl Acrylate	No. 2 Diesel Fuel	Hexane	Methyl Ethyl Ketone	

Hazardous Substances: Hazardous Gases

Appendix I Subpart C

Acetaldehyde

Hydrogen

Butadiene

Liquefied Natural Gas
(LNG)

Butane

Liquefied Petroleum Gas
(LPG)

Ethene

Propane

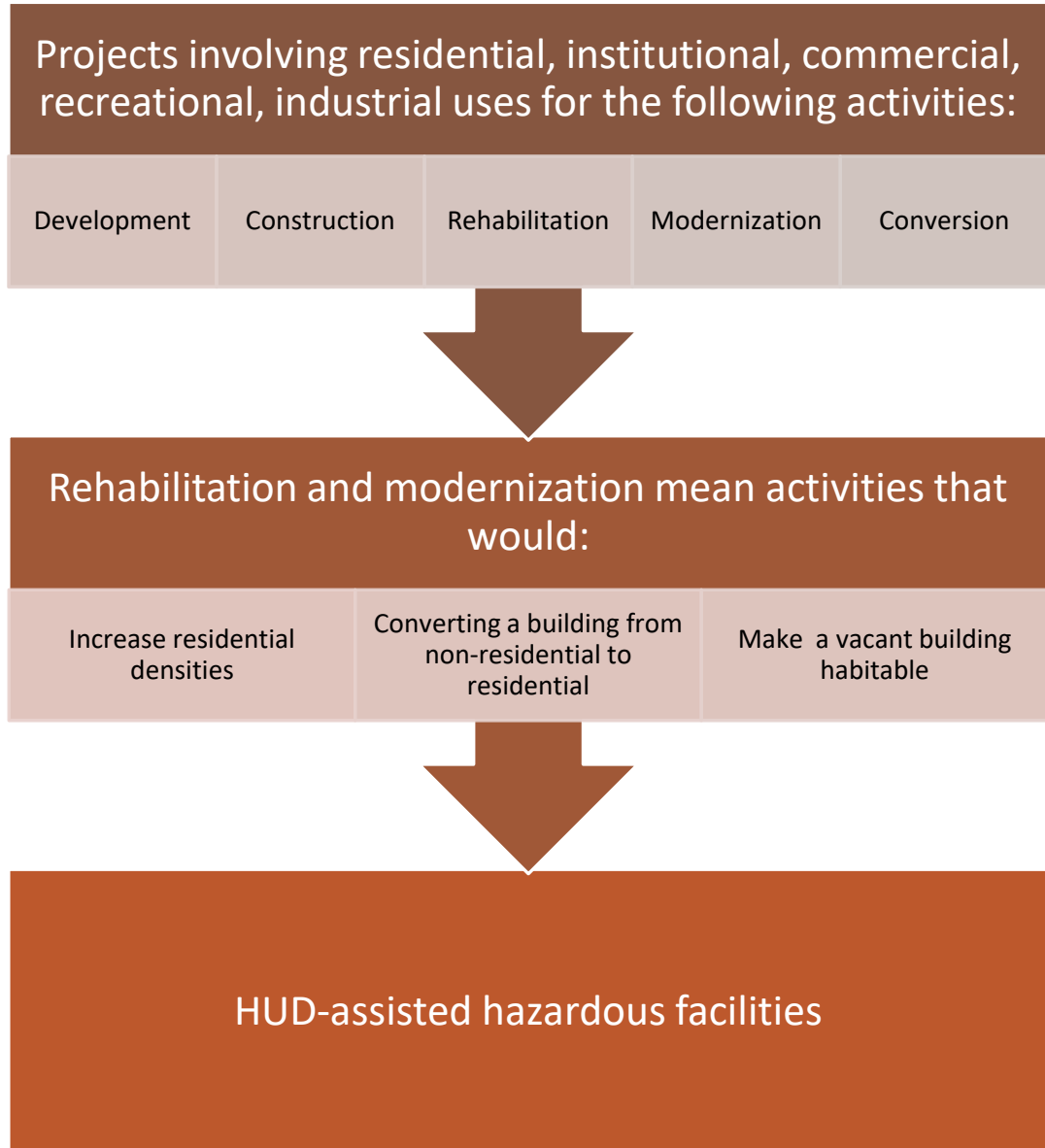
Ethylene

Propylene

Ethylene Oxide

Vinyl Chloride

What types of Projects Does this Regulation Apply to?



Examples of Hazardous Operations Applicable to 51C

Bulk fuel storage
and distribution
facility



Examples of Hazardous Operations Applicable to 51C

Petrochemical
plant



Examples of Hazardous Operations Applicable to 51C

Propane gas storage and distribution point



The Regulation Does Not Apply to the Following:

Pipelines that transmit hazardous substances if:

- Located underground, or
- Comply with applicable Federal, state, local safety standards

Containers containing common liquid industrial fuels with a capacity of less than 100 gallons or less

- E.g. gasoline, fuel oil, kerosene, and crude oil



Exclusions: Where the HUD Standards do not apply

Underground
Storage Containers



Natural gas holders
With Floating Tops

Exclusions: Where the HUD Standards do not apply



High Pressure
Pipelines



Mobile tanks
en Route

What is Acceptable Separation Distance (ASD)?

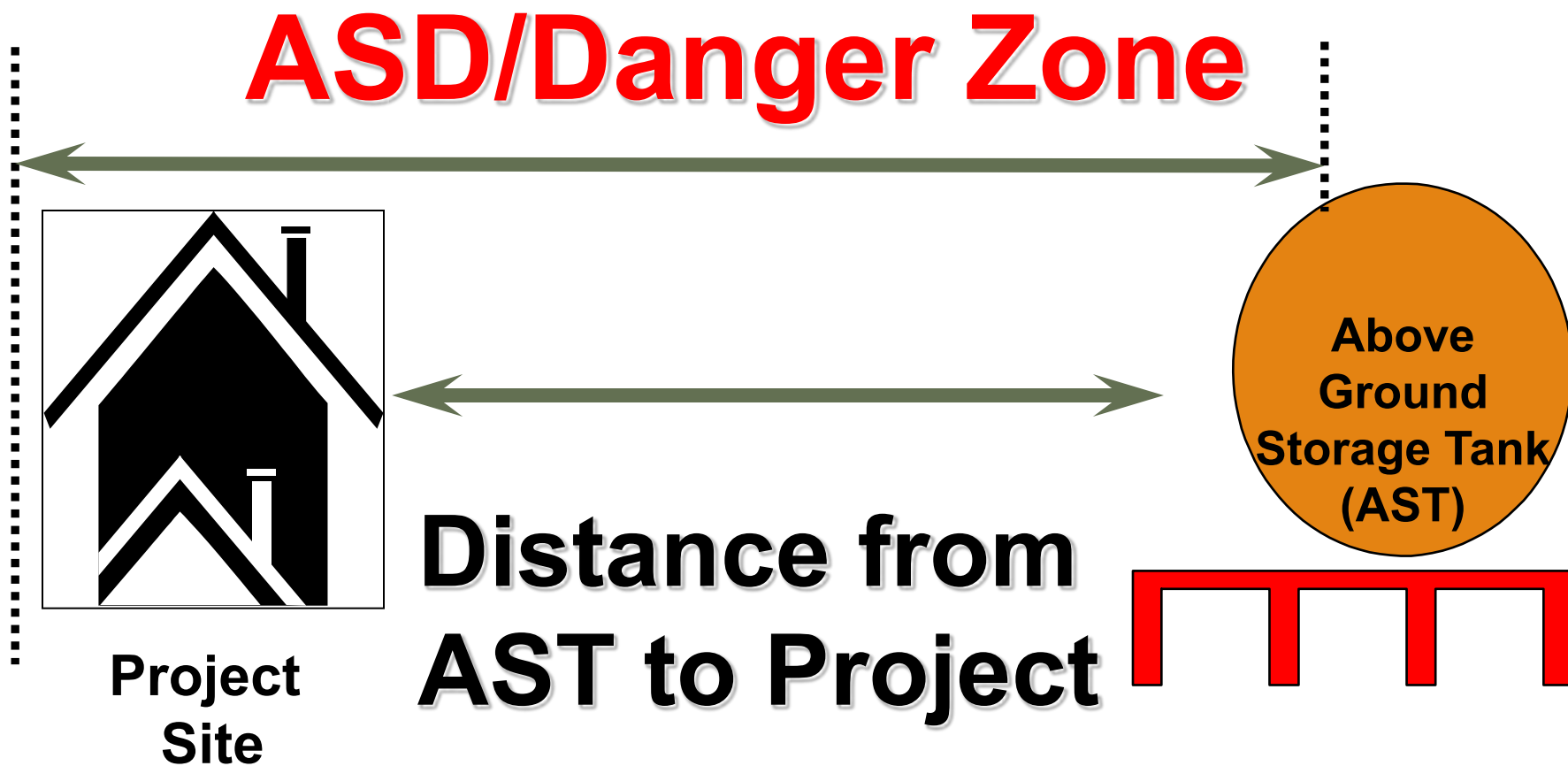


The distance beyond which the explosion or combustion of a hazard is not likely to cause structures or individuals to be subjected to blast overpressure or thermal radiation flux levels in excess of the safety standards of Section 51.203



Danger Zone: Land area within the ASD of a given hazard.

A project within the ASD is in harm's way



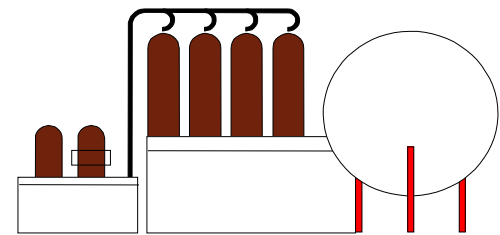
Determine if there are ASTs Containing Hazardous Substances within 1 mile of site, using:

- Aerial Maps (e.g., Google Earth)
- Topographic maps
- Site Visit and photos of surrounding area
- Local gov't (e.g., fire marshal)
- State storage tank databases



If AST's are Present, Collect the Following Data:

- Size of the tanks
- Contents
- Whether liquid or gas
- Whether under pressure or not
- Whether diked or undiked
- If diked, dike dimensions



Data Sources



- Site Manager/Owner
- Fire Dept/Haz-Mat
- Planning Dept
- Phase I

Clues from Site Visit

Pressurized vs. Unpressurized Containers

Most hazardous substances are stored in pressurized containers and generally, the ASD for explosion is greater than the ASD for fire

Unpressurized tanks do not emit blast overpressure of dangerous levels when ignited, so only the thermal radiation standard applies

Example of a Dike

Perimeter barrier
to prevent liquid
flow



Determine the ASD

Acceptable Separation Distance Assessment Tool

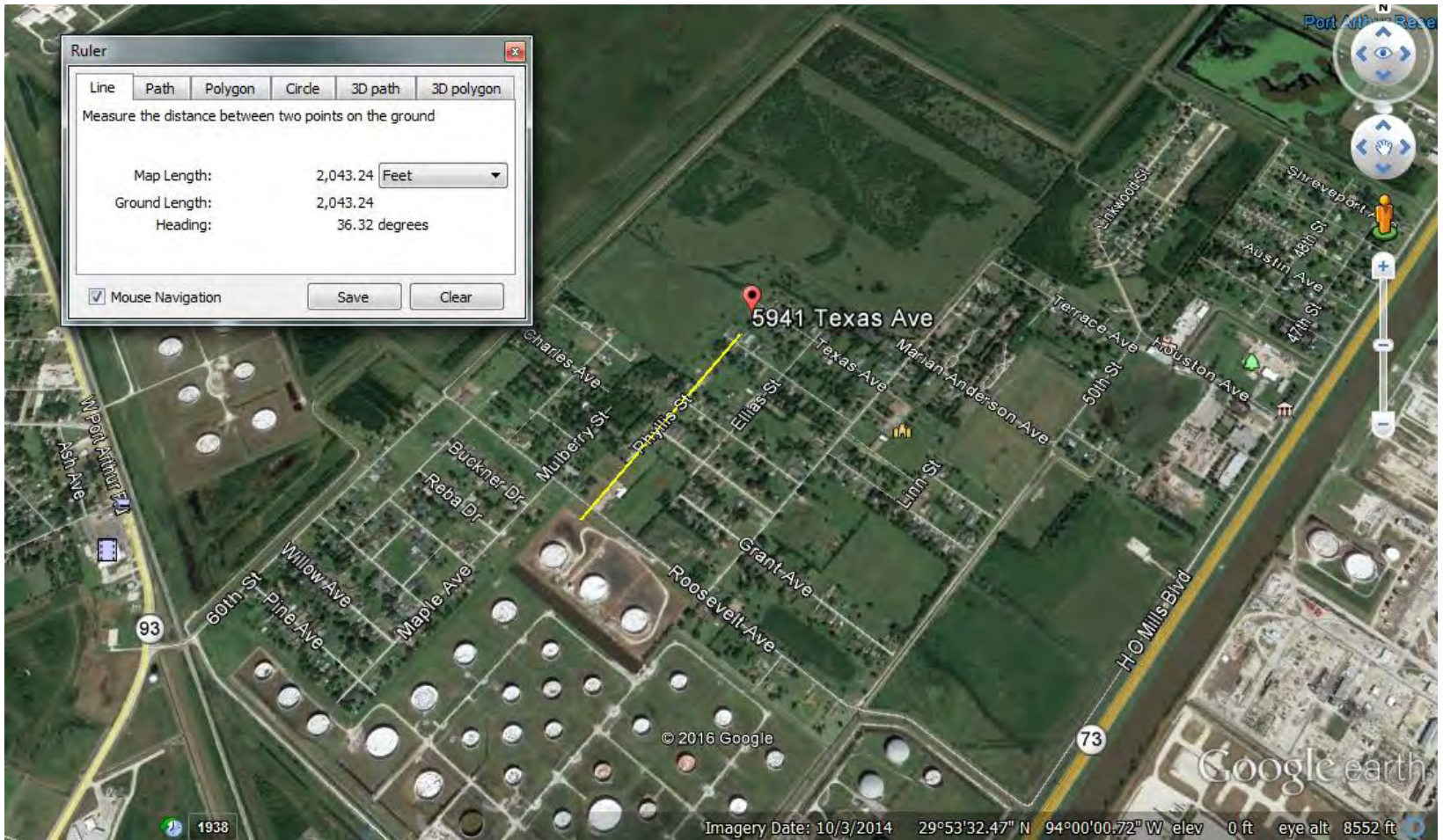
Is the container above ground?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Is the container under pressure?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Is the container diked?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
What is the volume (gal) of the container?	<input type="text"/>
What is the Diked Area Length (ft)?	<input type="text"/>
What is the Diked Area Width (ft)?	<input type="text"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPPU)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBPU)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPNPD)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBNPD)	<input type="text"/>

Calculate using HUD's ASD Calculator:

<https://www.hudexchange.info/programs/environmental-review/asd-calculator/>

Application of the ASD

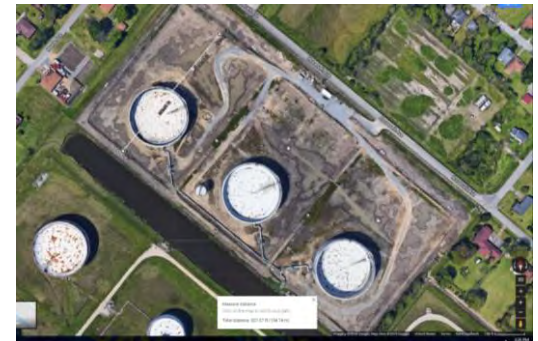
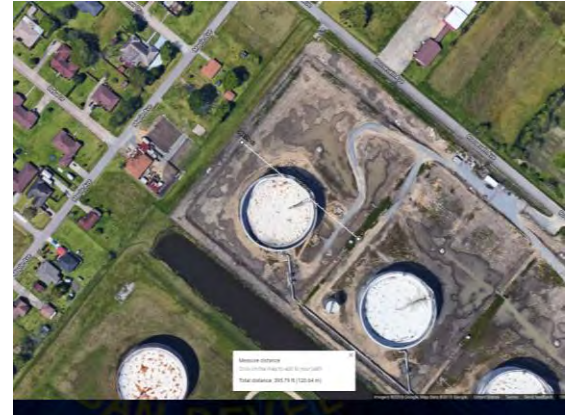
- ASD is based on level topography with no intervening objects
- Evaluate sources individually: The closest, largest tank or diked area will usually determine the ASD – use single tank or diked area with ASD that comes closest to proposed site to determine compliance
- If the calculated ASD is less than the distance from the AST to the project perimeter, then the project is in compliance.



Acceptable Separation Distance Assessment Tool

Is the container above ground?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Is the container under pressure?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Is the container diked?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
What is the volume (gal) of the container?	<input type="text"/>
What is the Diked Area Length (ft)?	<input type="text" value="507"/>
What is the Diked Area Width (ft)?	<input type="text" value="396"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text" value="200772"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPPU)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBPU)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPNPD)	<input type="text" value="1419.16"/>
ASD for Thermal Radiation for Buildings (ASDBNPD)	<input type="text" value="307.16"/>

For mitigation options, please click on the following link: [Mitigation Options](#)



Determine Compliance

If the distance to the project is less than the ASD, then the project is in the Danger Zone and is not in compliance

HUD Limitations on Projects within the Danger Zone for Explosive and Flammable Hazards

- The RE cannot approve assistance for projects that are in the Danger Zone (i.e. located less than the acceptable separation distance from a hazard) without appropriate mitigation measures.
- The RE cannot approve a project located in area with a development plan for locating hazards less than the acceptable separation distance without appropriate mitigation measures.

If
topography
is not level
and project
is within
ASD:

- Determine whether topographic features provide an effective mitigating barrier
 - ❓ Determination must be conducted by a qualified professional (including HUD engineer Nelson Rivera or other P.E., in accordance with HUD's Barrier Design Guidelines)
 - ❓ Document this barrier effect as part of ERR and compliance for this factor is complete (not considered special compliance measure for CEST converting to exempt)

Mitigation is Required if Project is in the Danger Zone

- **Option 1: Choose an alternative site**
- **Option 2: Engineered Mitigations**
 - Shield by topography, existing structures, or barriers
 - Design project to withstand blast over-pressure and thermal radiation
 - Bury tanks
 - Move tanks away from people

If using a barrier:

Use HUD handbook:

- *“Barrier Design Guidance for HUD Assisted Projects Near Hazardous Facilities”* (avail on OneCPD)

Barrier must be evaluated or designed to these standards by a Professional Engineer (PE) – may use HUD engineer

ERR documentation:

- PE certification of plans
- PE as-built certification once project & barrier completed

Documentation for ERR

- Document **presence/absence** of tanks within 1 mile of project
- **Include ASD** Calculation
- Include Data Used for Calculation
- **Map** the container(s) in relation to project
- Engineering Report for Mitigation Measures
- Include required mitigation measures in the ERR and funding agreements and monitor implementation

HUD Guidebook “Siting of HUD Assisted Projects Near Hazardous Facilities”

- Guidebook is used to calculate acceptable separation distance (ASD) for blast overpressure (**explosion**) and thermal radiation (**fire**):
<https://www.hudexchange.info/resource/2762/acceptable-separation-distance-guidebook/>
- Flowchart of decision process, see Appendix A of guidebook:
<https://www.hudexchange.info/resources/documents/Acceptable-Separation-Distance-Guidebook-Appendix-A.pdf>

Thermal Radiation Hazard



<http://youtu.be/PZ1PpM4DAGQ>

Questions?

Historical Preservation

Section 106 Review

National Historic Preservation Act of 1966

The National Historic Preservation Act of 1966:

- National Register of Historic Places (NRHP)
- State Historic Preservation Officers (SHPO)
- Advisory Council on Historic Preservation (ACHP)
- Federal regulations (36 CFR §800) set forth a process of consultation and negotiation (Section 106)



Section 106 Overview

Section 106 of the National Historic Preservation Act requires federal agencies “take into account the effects of their undertakings on historic properties,” and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment

The goal of Section 106 consultation is to avoid, minimize, or mitigate any adverse effects on historic properties



Section 106 Overview

What is a Federal Undertaking?

Any project that involves:

- Federal funds (in whole or in part, including pass-through funds)
- Federal permit
- Federal licenses
- Federal approval
- Federal land or property



Highway Construction



Corps of Engineers Permits



FCC Licenses

Section 106 Overview

- Roles and Responsibilities
 - Federal Agency or Responsible Entity
 - Consults with the SHPO, prior to approving an undertaking
 - Final decision-maker
 - State Historic Preservation Officer (SHPO)
 - Mandatory consulting party for Section 106 review
 - Reflects the interests of their state in the preservation of their cultural heritage
 - Consulting parties
 - Can be critical to achieving a good outcome
 - Suggested consulting parties:
 - Native American Tribes
 - Project sponsor or applicant
 - County Historical Commissions
 - Local historical commission and Main Street manager, when applicable
 - Local or regional preservation non-profits
 - Other groups or individuals with a demonstrated interest in the project

Section 106 Overview

Steps in the Section 106 Process

1. Establish Undertaking

- Determine if there is a Federal undertaking with the potential to affect historic properties

2. Identify Historic Properties

- Define the Area of Potential Effect (APE) and identify any historic properties within the APE

3. Assess Effects

- Determine the effect, if any, of the project on historic properties

4. Resolve any Adverse Effects

Throughout the process, the agency consults with the SHPO, Tribes, and other consulting parties

Section 106 Process: Identifying Historic Properties

Area of Potential Effects (APE)

- Should be delineated before any identification efforts take place
- Does not have to be one contiguous area
- Not necessarily based on boundaries of land ownership
- Includes all direct and reasonably foreseeable indirect effects
- May also account for cumulative effects

General guidance for HUD projects:

Direct effects:

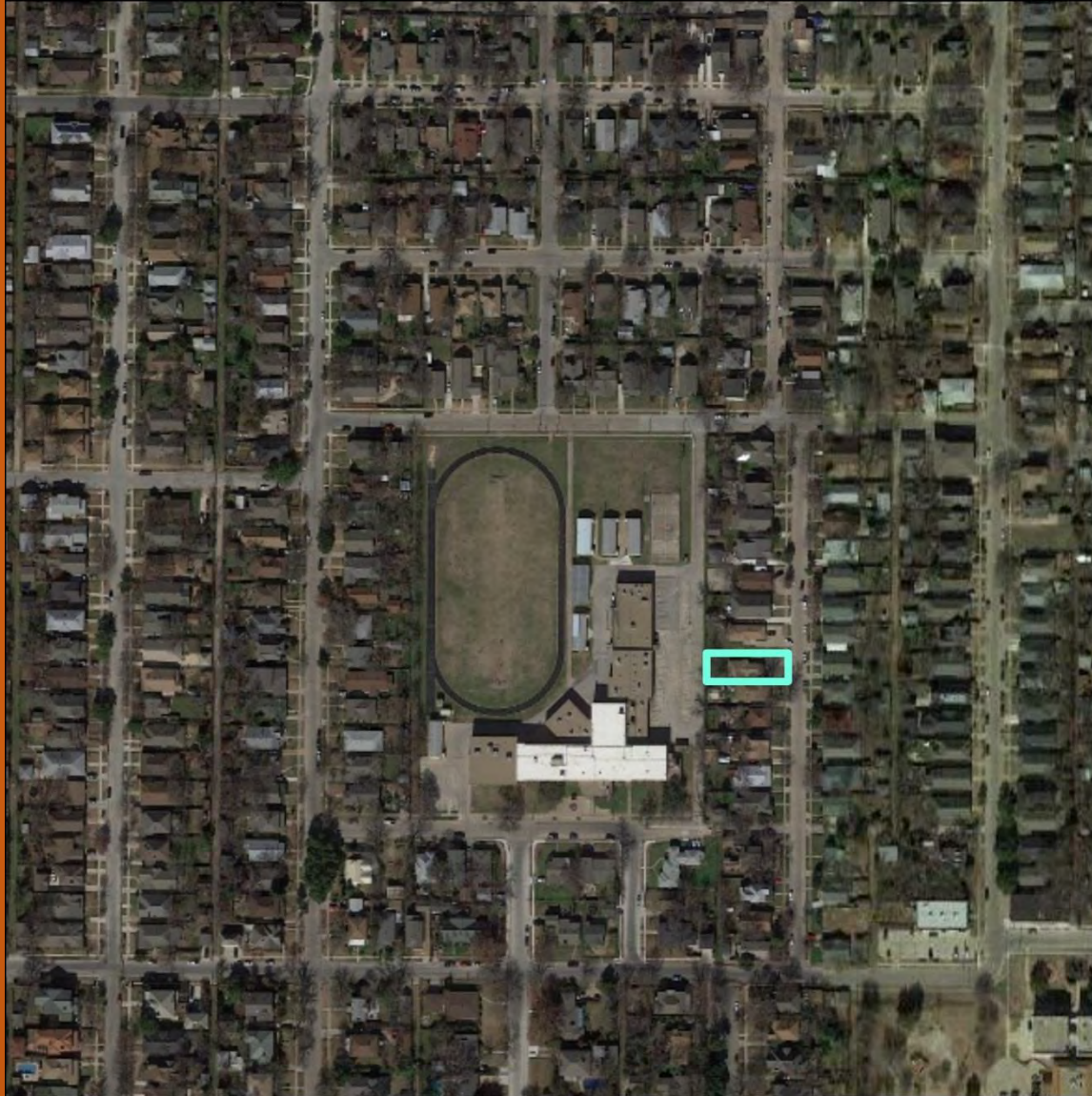
New construction or ground disturbance: the footprint to be directly affected by new construction, staging areas, and access areas

Rehabilitation of a building: limited to the building being rehabilitated

Indirect effects:

Must account for potential visual or auditory effects

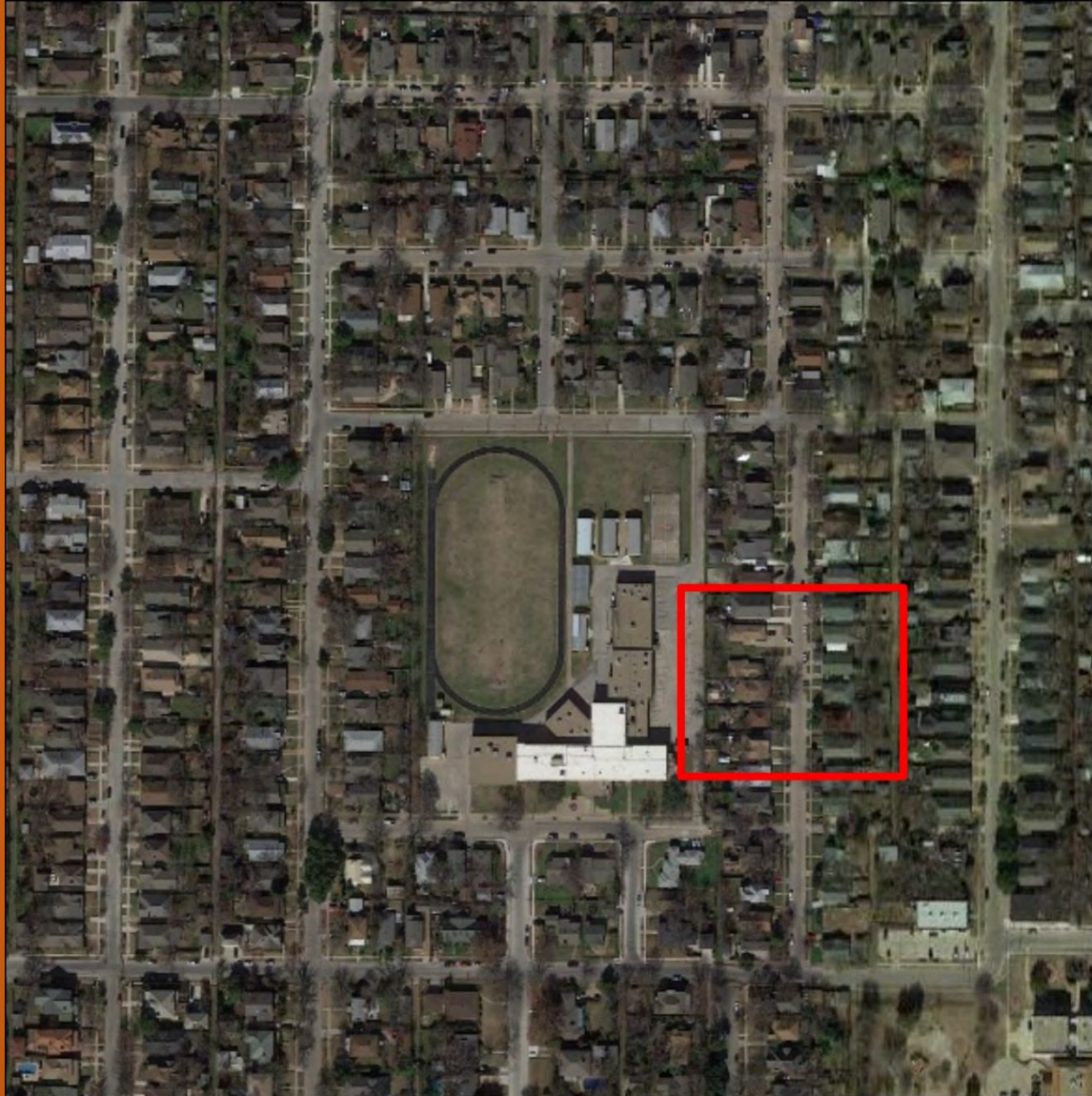
Section 106 Process: Identifying Historic Properties



**Area of Potential Effect
Examples**

Interior Rehabilitation

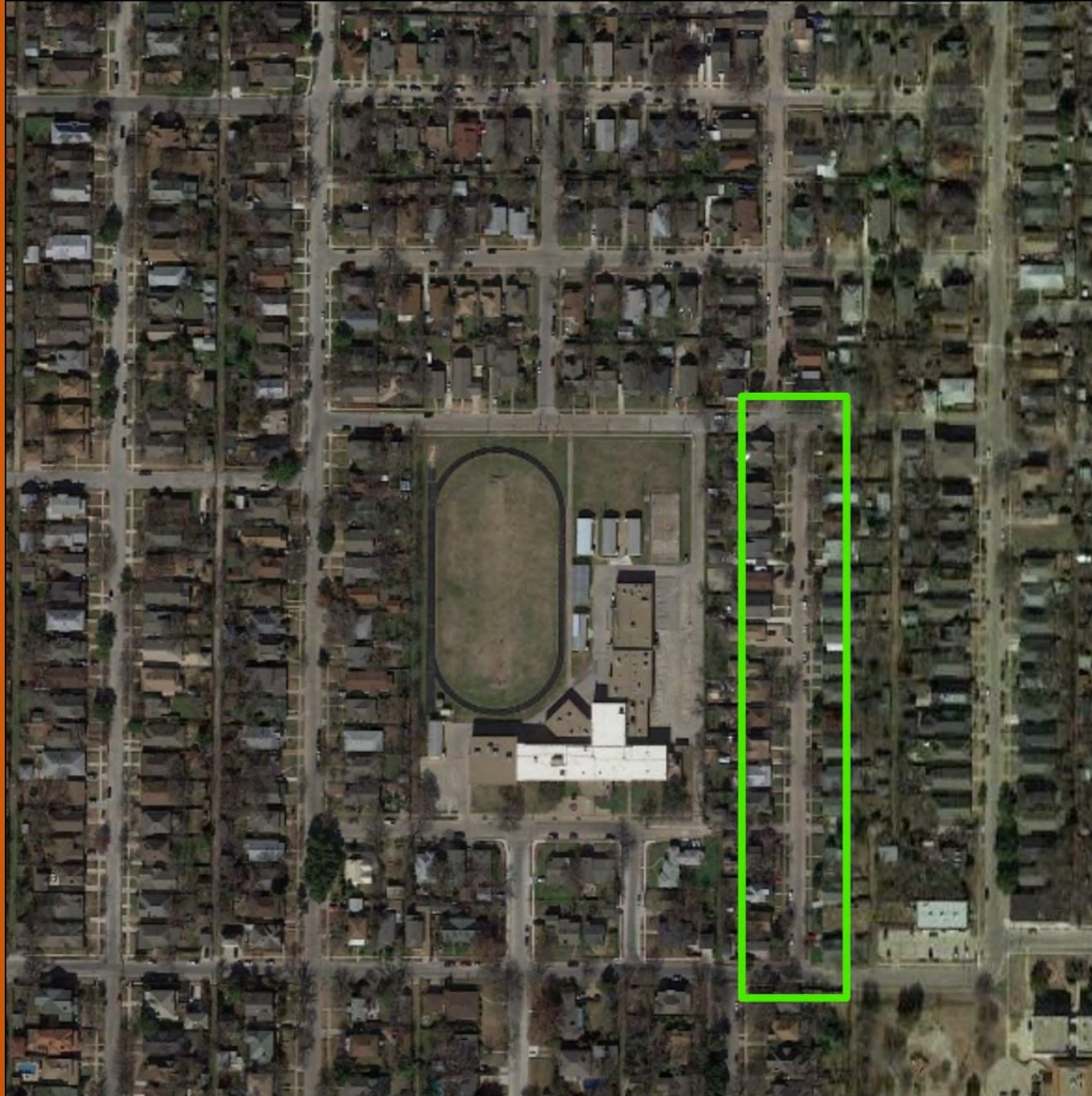
Section 106 Process: Identifying Historic Properties



**Area of Potential Effect
Examples**

New Construction or
Exterior Rehabilitation

Section 106 Process: Identifying Historic Properties



**Area of Potential Effect
Examples**

Utility Lines or Street
Improvements

Section 106 Process: Identifying Historic Properties



**Area of Potential Effect
Examples**

Major Redevelopment

Section 106 Process: Identifying Historic Properties

What is a Historic Property?

- Any site, district, building, structure, or object listed in, or **eligible** for listing in, the National Register of Historic Places
- Must meet at least one National Register Criteria:
 - A. Historic Event or Broad Pattern of History
 - B. Historic Persons or People
 - C. Architecture, Engineering, or Design
 - D. Information Potential (Archeology)



Section 106 Process: Identifying Historic Properties

Age of the property:

- Projects affecting structures or buildings 45 years of age or older should be submitted for review
- Projects affecting buildings less than 45 years of age generally do not need to be submitted unless there is ground disturbance
- Properties determined not eligible for the National Register should be reexamined every 5 years



Section 106 Process: Identifying Historic Properties

Above-Ground Resources

While some buildings are individually eligible for National Register listing, many more are eligible as contributing to **historic districts**



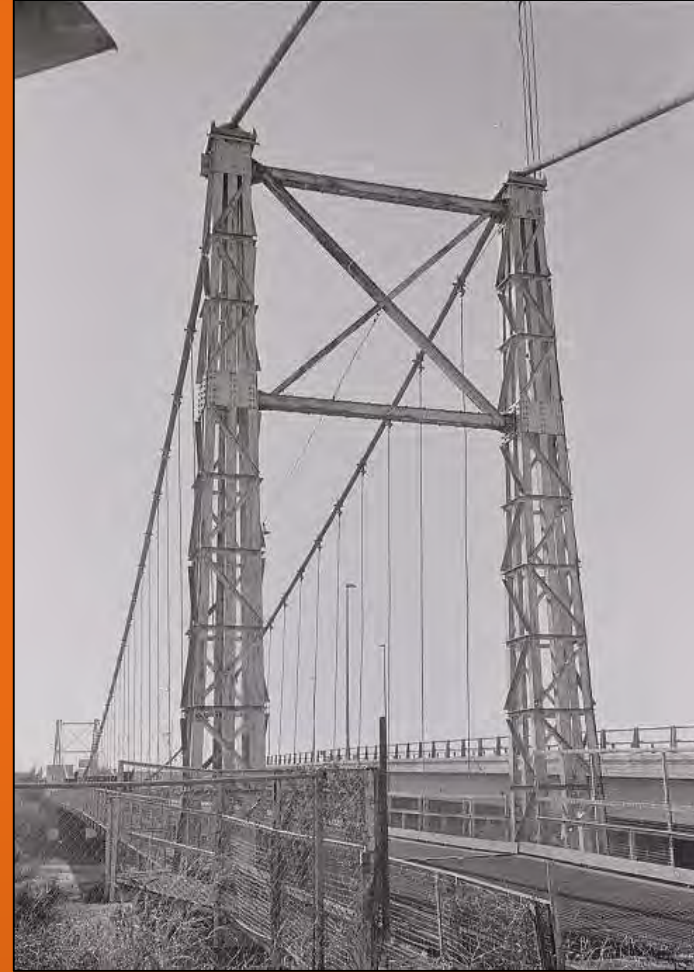
Section 106 Process: Identifying Historic Properties

Public housing may be historically significant



Section 106 Process: Identifying Historic Properties

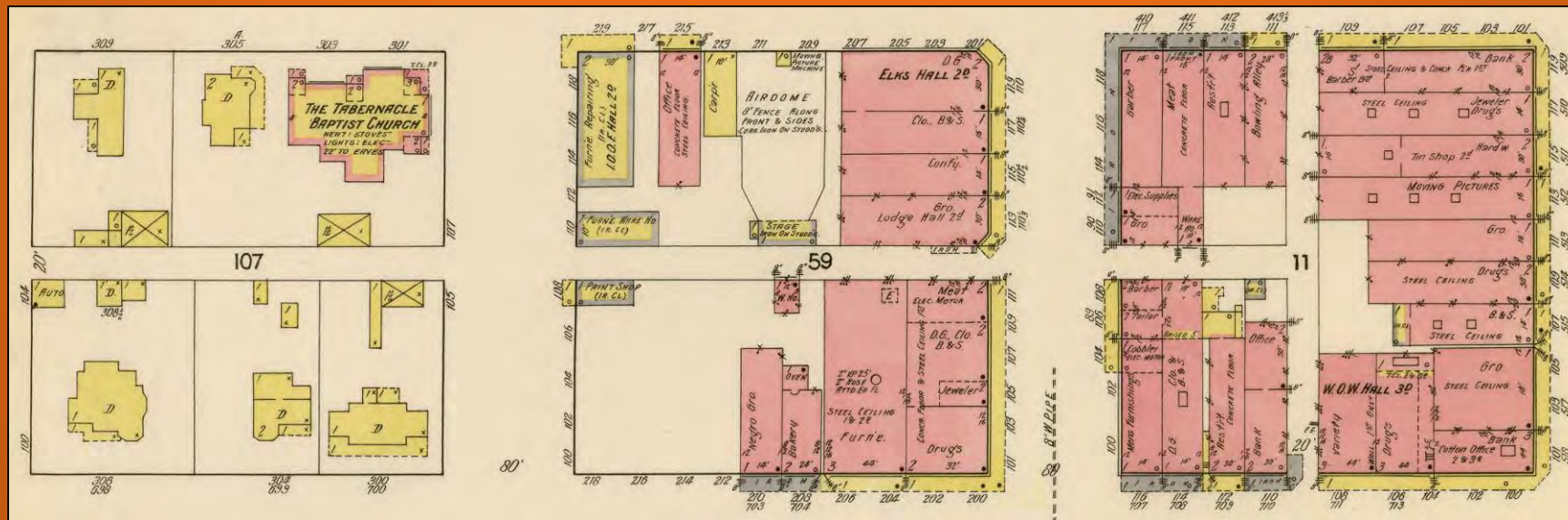
Cultural landscapes, structures, and objects also require consideration



Section 106 Process: Identifying Historic Properties

The Atlas is a good place to start but...

- Many communities have surveys of local historic properties
- Historic photographs and maps can help identify potential historic properties
- Historic Sanborn Fire Insurance Maps may be available for some areas
- On-site observation is almost always necessary



Section 106 Process: Identifying Historic Properties

Archeology

Projects involving ground-disturbing activity may require an archeological survey

- Good maps and photographs of the site are critical for review
- Review staff look at topographical maps for high-probability areas for prehistoric archeology – often areas that are elevated but close to water, such as river terraces or floodplain rises
- Historic areas of a city may need archival research to determine the potential for historic archeology
- Archeological surveys for HUD projects are relatively rare and should not be undertaken without first consulting with the SHPO

Section 106 Process: Assessing Effects

- A project will have an Adverse Effect if it alters characteristics that contribute to the historic integrity and eligibility of the property.
- Issues to consider in determining effect:
- Type of effect
 - Physical impacts
 - Visual impacts, including views to and from the site
 - Audible impacts
 - Cumulative impacts
- Characteristics that make the property significant
 - Historic craftsmanship, materials, and design
 - Context and setting



Section 106 Process: Assessing Effects

Avoiding Adverse Effects

- Projects affecting historic properties ideally should be designed from the outset to avoid adverse effects.
- For a rehabilitation project, strive to meet the Secretary of the Interior's *Standards for the Treatment of Historic Properties*.



Section 106 Process: Assessing Effects

Secretary of the Interior's *Standards*

- The *Standards* are four distinct but interrelated approaches to the treatment of historic properties:
 - Preservation
 - Rehabilitation
 - Restoration
 - Reconstruction
- *Standards for Rehabilitation* are most often applied.
- Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.

Section 106 Process: Assessing Effects

Standard 2: Preserve character-defining features.

The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.



Section 106 Process: Assessing Effects

Standard 6: Repair rather than replace.

Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials.



Section 106 Process: Assessing Effects

Preservation Briefs are produced by the National Park Service and provide guidance on treatment of historic buildings, materials, and systems.

Topics include:

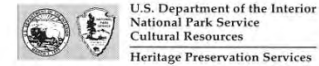
- Lead-Paint Hazard Reduction
- Repair of Wood Windows
- Preserving Wooden Porches
- Roofing

<http://www.nps.gov/tps/how-to-preserve/briefs.htm>

37 PRESERVATION BRIEFS

Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing

Sharon C. Park, AIA, and Douglas C. Hicks



Lead-based paint, a toxic material, was widely used in North America on both the exteriors and interiors of buildings until well into the second half of the twentieth century. If a "historic" place is broadly defined in terms of time as having attained an age of fifty years, this means that almost every historic house contains some lead-based paint. In its deteriorated form, it produces paint chips and lead-laden dust particles that are a known health hazard to both children and adults. Children are particularly at risk when they ingest lead paint dust through direct hand-to-mouth contact and from toys or pacifiers. They are also at risk when they chew lead-painted surfaces in accessible locations. In addition to its presence in houses, leaded paint

chips, lead dust, or lead-contaminated soil in play areas can elevate a child's blood lead level to a degree that measures to reduce and control the hazard should be undertaken (see Action Level Chart, page 6)

The premise of this Preservation Brief is that historic housing can be made lead-safe for children without removing significant decorative features and finishes, or architectural trimwork that may contribute to the building's historic character (see fig. 1). *Historic housing*—encompassing private dwellings and all types of rental units—is necessarily the focus of this Brief because federal and state laws primarily address the hazards of lead and



Before



After

Figure 1. A large-scale historic rehabilitation project incorporated sensitive lead-hazard reduction measures. Interior walls and woodwork were cleaned, repaired, and repainted and compatible new floor coverings added. The total project was economically sound and undertaken in a careful manner that preserved the building's historic character. Photos: Landmarks Design Associates.

Section 106 Process: Mitigating Adverse Effects

Some adverse effects cannot or will not be avoided, and mitigation for the loss or damage to the historic property must be considered.

Documentation is the minimum standard when a property is demolished.

HABS DESCRIPTION - STEGMAN BUILDING
(BROWNSVILLE PERFORMING ARTS ACADEMY)

LOCATION: 1033 11TH STREET, BROWNSVILLE, CAMERON COUNTY, TEXAS
THE CITY OF BROWNSVILLE

PRESENT OWNER: VACANT.

PRESENT USE: Architectural

SIGNIFICANCE: Roman McAllen

HISTORIAN:

PROJECT INFORMATION:

PART I. HISTORICAL INFORMATION

A. PHYSICAL HISTORY

1. DATE OF ERECTION: 1912.
Andrew Goldammer, 1878-1939.

2. ARCHITECT:

3. ORIGINAL AND SUBSEQUENT OWNERS, OCCUPANTS:
Barclay G. Stegman's (1856-1917) was born in Germany and immigrated to US in 1882. He later married May Lott (1860-1937), subsequently Mrs. S. L. Turner). Stegman arrived in Brownsville around 1905 and was one of the investors in the private franchise that developed Brownsville's first public street car line.

On July 4, 1912 The Brownsville Herald reported:
"Stegman Building Now Finished: B. G. Stegman Building on 11th St. behind Merchants National Bank Bldg completed. Ground floor contains three storerooms, each 40 feet wide. Front appears to be solid stretch of plate glass. Wood canopy. Part of the second floor will be occupied by Elks Club as lodge room. Club spaces are ladies rest room, men's cloak room, parlor, writing and club room and spacious ballroom. Lodge rooms to look on beautiful garden planted with palms, ferns, and shrubs. In addition, telephone exchange to be located on second floor. And Mr. Stegman to occupy 5-room suite as his living quarters. A. Goldammer drew and constructed building, \$35,000".

As-Found conditions correspond with the historic record and are conjecturally identified on the floor plans (Exhibit C) as to the location and configuration of the second floor apartment occupied by Stegman further identified as the garden, the lodge rooms, and the telephone exchange.



Section 106 Process: Mitigating Adverse Effects



Large-scale excavation and extensive analysis is usually required to mitigate the loss of an archeological site.

Working with the SHPO

Working with the SHPO: What to Send

Here's what the SHPO need:

- Project Description
- Program Information
- Site Photos
- Maps (Direct and Indirect APE)

Working with the SHPO: Submit *Useful* Images



24 CFR 58.5(a) Historic Properties of Religious and Cultural Significance to Indian Tribes and Native Hawaiian Organizations





HUD Resources

- HUD Guidance on Historic Preservation:
<https://www.hudexchange.info/programs/environmental-review/historic-preservation>
- HUD Guidance on Tribal Consultation:
<https://www.hudexchange.info/environmental-review/historic-preservation/tribal-consultation/>
- Historic Preservation Worksheet:
<https://www.hudexchange.info/resources/documents/Historic-Preservation-Worksheet.docx>
- HUD Tribal Directory Assessment Tool:
<https://egis.hud.gov/tdat/>



Tribal Consultation Requirements of the National Historic Preservation Act of 1966

- Statute: Section 106 of the *National Historic Preservation Act of 1966* (16 U.S.C. 470 et seq.)
- Executive Order 13175 (Effective Nov 6, 2000) “Consultation and Coordination with Indian Tribal Government” – requires Federal agencies to take into account the effects of their undertakings on historic properties of religious and cultural significance to tribes
- Implementing Regulation: 36 CFR Part 800 (Effective Aug 5, 2004) “Protection of Historic Properties”



24 CFR 800 Requires:

- “Agency Officials” to ensure Tribes have a reasonable opportunity to:
 - Identify concerns about historic properties, including those of traditional religious and cultural importance
 - Articulate views on the undertaking’s effects on such properties
 - Participate in the resolution of adverse effects
- Make a reasonable and good faith effort to identify Tribes that should be consulted and invite them to consult.
- ***If Tribes request to be a consulting party, they shall be one.***



Government-to-Government Relationship

- US Constitution, treaties, statutes, and court decisions sets forth the unique relationship between the Federal government and Indian Tribes.
- Consultation with Tribes shall be conducted in a sensitive manner, respectful of tribal sovereignty.
- Consultation with Tribes must recognize Government-to-Government (federal agency to sovereign Indian nation) relationship sensitive to the concerns and needs of the Tribe.
- The RE (state, local, and tribal governments) have assumed the role of the federal agency in tribal consultation



Historic Properties of Religious and Cultural Significance

Historic properties of religious and cultural significance to tribes including:

- Archeological sites
- Burial grounds
- Sacred landscapes or features
- Ceremonial areas
- Traditional cultural landscapes and places
- Plant and animal communities
- Structures with significant tribal association



Historic Properties of Religious and Cultural Significance Off Tribal Lands

- Federal agencies must consult tribes as part of the Section 106 process
- Historic properties of religious and cultural significance can be located on ancestral, aboriginal, or ceded tribal lands
- Historic properties of religious and cultural significance can be locations outside of tribal lands and may only be known to tribes.
- Agencies are **obliged to keep confidential information confidential.**



Must Determine if Section 106 Review is Required

- **Not required if:**
 - Activities are Categorically Excluded Not Subject to 50.4 pursuant to 24 CFR Part 50.19, unless otherwise indicated
 - If a Section 106 Programmatic Agreement covers the activity and does not require a review
 - If the Section 106 Review is being led by another lead federal agency, may defer to that agency's findings through formalized agreement



Must Determine if Activity Has the Potential to Affect Historic Properties of Religious and Cultural Significant to Tribes

- Ground disturbance (digging)
- New construction in undeveloped natural areas
- Introduction of incongruent visual, audible, or atmospheric changes
- Work on a building or structure with significant tribal association
- Transfer, lease or sale of historic properties of religious and cultural significance.
- When to consult with tribes checklist:
 - <https://www.hudexchange.info/resource/2448/notice-cpd-12-006-tribal-consultation-under-24-cfr-part-58/>
- If the project will not have an affect, include checklist in ERR



Must Determine if Project is in an Area With Tribal Interests

- Determine if there are tribes with interest in the project area
 - HUD's Tribal Directory Assessment Tool
<https://www.hudexchange.info/environmental-review/historic-preservation/tribal-consultation/>
 - If there are no recognized tribes with interest in your project area, include documentation in the ERR.



Pop Quiz

- Can my consultant initiate consultation with tribes?



Pop Quiz

- Does a tribe have to respond to correspondence from my consultant?

Floodplain Management

**24 CFR PART
58.5(b)(1)
& PART 50.4
(b)(2)**

- Regulations
- Applicability
- Exceptions
- 8-Step Process
- ERR Documentation

HUD Resources

- HUD Guidance:

<https://www.hudexchange.info/programs/environmental-review/floodplain-management>

- Floodplain Management Worksheet:

<https://www.hudexchange.info/resources/documents/Floodplain-Management-Worksheet.docx>

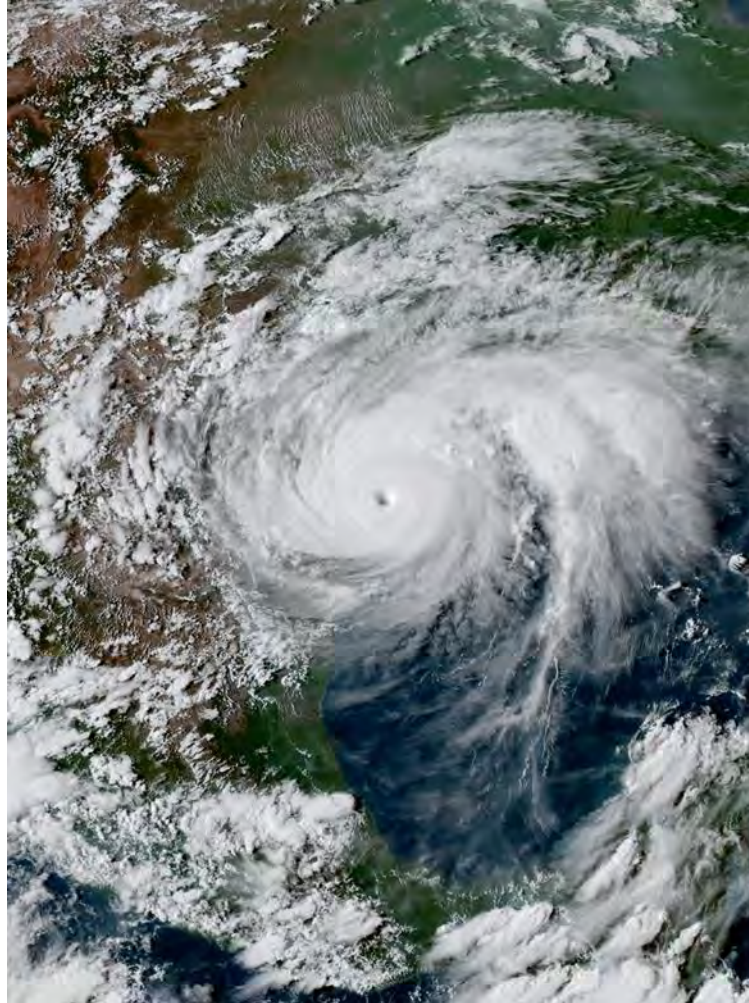
Regulations

- Executive Order 11988, Floodplain Management, requires Federal agencies to avoid development in floodplains, wherever practicable, and requires Federal agencies to develop implementing regulations that establish standards to accomplish this goal.
- HUD Regulations at 24 CFR Part 55 “Floodplain Management and Wetland Protection” was updated in 2013 to include protection of wetlands, and implements Executive Order 11988 for Floodplain Management and Executive Order 11990 for Protection of Wetlands

<https://www.youtube.com/watch?v=ePC7R3maJsw>

FEMA Designations

- 100-year floodplain
- 500-year floodplain
- Floodway
- Coastal High Hazard Area
- Special Flood Hazard Area



100-Year Floodplain

- **100-year floodplain** (§ 55.2(b)(9)) - is the area subject to inundation from a flood having a one percent chance of occurring in any given year.
 - FEMA designated as **Zone A***
 - * Any Zone with an A (A, AE, A1-A30, AO, AR, A99)
 - Areas with a 1% annual chance of flooding (1% X 100 years = 100%)
 - That is a 26% chance of experiencing a flood over a 30-year mortgage.

500-Year Floodplain

- **500-year floodplain** (§ 55.2(b)(4)) - is the area subject to inundation from a flood having a 0.2 percent chance of occurring in any given year.
 - FEMA designated as **Zone B** or **Zone X (shaded)**
 - Areas with 0.2% annual chance of flooding (0.2% X 500 years = 100%)

Floodway

- **Floodway** (§ 55.2(b)(5)) - that portion of the floodplain which is effective in carrying flow, where the flood hazard is generally the greatest, and where water depths and velocities are the highest. The term “**floodway**” as used here is consistent with “regulatory floodways” as identified by FEMA.
 - FEMA designated as **Zone AE (hatched)**
 - No HUD assistance may be approved for use in a floodway, except for a functionally dependent use, or a floodplain function restoration activity.

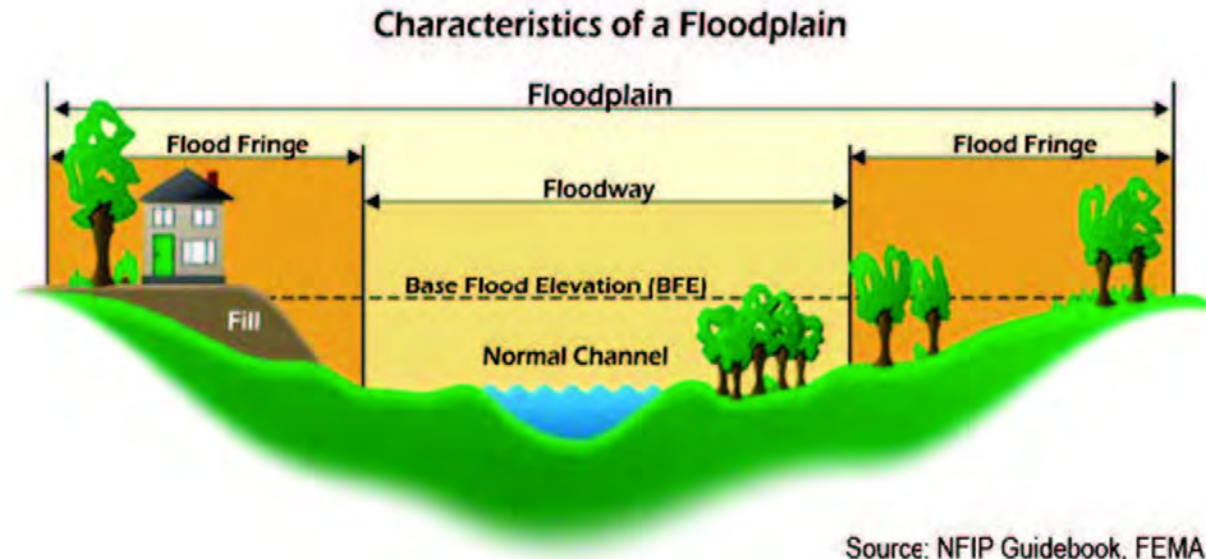
Coastal High Hazard Area

Coastal High Hazard Area (§ 55.2(b)(1)) - the area subject to high velocity waters, including but not limited to hurricane wave wash or tsunamis.

- FEMA designated as **Zone V1-30, VE, or V**
- Actions allowed include:
 - A functionally dependent use
 - Improvement to existing construction
 - Reconstruction following destruction caused by a disaster

Special Flood Hazard Area

- **Special Flood Hazard Area:** (SFHA) Zones containing the letters “A” or “V” is the 100-year floodplain, Floodway, Coastal High Hazard Area



Critical Action

- **Critical Action** are prohibited in floodways and coastal high hazard areas. Critical actions should be avoided in the 100-year and 500-year floodplains. HUD funded critical actions may be funded in the 100-year and 500-year floodplains if it is processed under 24 CFR Part 55.20, the 8-step process.
- Critical actions include:
 - Emergency services
 - Housing for sensitive populations, including hospitals and nursing homes, convalescent homes, intermediate care facilities, board and care facilities, and retirement service centers. Housing for independent living for the elderly is not considered a critical action.
 - Structures that hold sensitive documents
 - Facilities that store hazardous materials
 - Important public facilities

Functionally Dependent

- **Functionally dependent uses** (§ 55.2(b)(6)) - a land use that must necessarily be conducted in close proximity to water
 - a dam, marina, port facility, water-front park, and many types of bridges
 - Floodplain function restoration activities

Applicability

- Compliance requirements vary depending on the type of floodplain and the activity proposed.
- Coastal High Hazard Areas
 - Critical actions are prohibited
 - Noncritical actions are allowed only if the proposed action is one of the following and processed under 55.20, the 8-step process:
 - A functionally dependent use
 - Existing construction, including improvements – must meet design requirements at 55.1(c)(3)(ii)
 - Reconstruction following destruction caused by a disaster – must meet design requirements of 55.1(c)(3)(i)
- Floodways
 - Critical actions are prohibited
 - Noncritical actions are allowed only if the proposed action is a functionally depended use and is processed under 55.20, the 8-step process.

Applicability

- 100-year floodplain
 - Critical and non-critical actions are allowed if one of the following apply:
 - The proposed action is processed under 55.20, the 8-step process
 - The proposed action qualifies for an exception under 55.12(a) and the 5-step process is completed.
 - The proposed action qualifies for an exception under 55.12(b) or (c) and neither the 5-step nor the 8-step process is required.
- 500-year floodplain
 - Noncritical actions are allowed without being processed under 55.20, the 8-step process.
 - Critical actions are allowed if one of the following apply:
 - The proposed action is processed under 55.20, the 8-step process
 - The proposed action qualifies for an exception under 55.12(a) and the 5-step process is completed.
 - The proposed action qualifies for an exception under 55.12(b) or (c) and neither the 5-step nor the 8-step process is required.

Applicability

Type of proposed action (new reviewable action or an amendment)	Type of proposed action			
	Floodways	Coastal high hazard areas	100-year floodplain outside high hazard areas	Outside the 100-year floodplain and within the 500-year floodplain
Critical actions as defined in §55.2(b)(2)	Critical actions not allowed.	Critical actions not allowed.	Allowed if the proposed critical action is processed under §55.20 ² .	Allowed if the proposed critical action is processed under §55.20 ² .
Non-critical actions not excluded under §55.12 (b) or (c)	Allowed only if the proposed non-critical action is a functionally dependent use and processed under §55.20 ² .	Allowed only if the proposed noncritical action is processed under §55.20 ² and is (1) a functionally dependent use, (2) existing construction (including improvements), or (3) reconstruction following destruction caused by a disaster. If the action is not a functionally dependent use, the action must be designed for location in a Coastal High Hazard Area under §55.1(c)(3).	Allowed if the proposed action is processed under §55.20 ²	Any non-critical action is allowed without processing under this part.

Substantial Improvement

- **Substantial Improvement** (§ 55.2(b)(10))
- Any repair, reconstruction, modernization or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:
 - Before the improvement or repair is started; or
 - If the structure has been damaged, and is being restored, before the damage occurred; or
- Any repair, reconstruction, modernization or improvement of a structure that results in an increase of more than twenty percent in the number of dwelling units in a residential project or in the average peak number of customers and employees likely to be on-site at any one time for a commercial or industrial project.
- Substantial improvement may not be defined to include either:
 - Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications that is solely necessary to assure safe living conditions, or
 - Any alteration of a structure listed on the National Register of Historical Places or on a State Inventory of Historic Places.
- Structural repairs, reconstruction, or improvements not meeting this definition are considered “minor improvements”

Exceptions

§55.12(a) – Steps 2, 3 and 7 of the 8-step decision making process outlined in §55.20 do not apply to these types of actions. (**5-step process**)

§55.12(b) – the entire 8-step decision making process outlined in §55.20 does not apply to these types of actions.

§55.12(c) – All of Part 55 does not apply to these types of actions.



5-Step Process

§55.12(a) – Steps 2, 3 and 7 of the 8-step decision making process outlined in §55.20 do not apply to the following types of actions. (5-step process)

- Disposition of multifamily housing properties or bulk sales of single-family properties.
- HUD’s purchase or refinance of existing multifamily housing projects, or healthcare projects in communities that are in good standing under the NFIP
- Certain repair, rehabilitation or modernization activities long as:
 - Community participates in and is in good standing with NFIP
 - Number of units does not increase by more than 20%
 - No conversion from nonresidential to residential land use
 - Does not meet the thresholds for “substantial improvement”
 - Footprint of structure is not significantly increased

Inapplicability - §55.12(b)

§55.12(b) – the entire 8-step decision making process outlined in §55.20 does not apply to the following types of actions:

- Mortgage insurance or financial assistance for certain existing single-family properties
- Financial assistance for minor repairs or improvements on SFH that do not meet the thresholds for “substantial improvement”
- The disposition of individual HUD-acquired SFH
- Certain loan guarantees without and future construction or rehabilitation activities beyond routine maintenance.
- Certain leasing activities if flood insurance is maintained for the entire structure

Floodway Prohibition

Floodway Prohibition

§55.1(c)(1): Except for actions listed in §55.12(c), no HUD financial assistance may be approved in a floodway other than a functionally dependent use or floodplain restoration activity.



Inapplicability - §55.12(c)

§55.12(c) – All of Part 55 does not apply to the following types of actions:

- HUD-assisted activities determined to be Exempt per §58.34, CENST per §58.35(b), and §50.19 unless otherwise indicated
- Financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition, when certain conditions are met
- A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland



Inapplicability - §55.12(c)

§55.12(c), continued – All of Part 55 does not apply to the following types of actions:

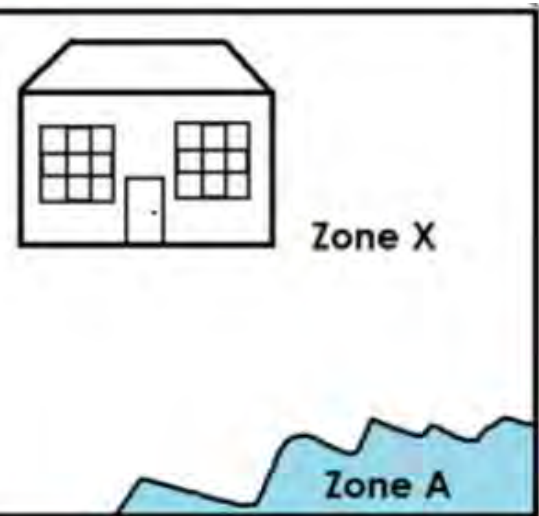
- A project site with an incidental portion located in a floodplain, floodway or coastal high hazard, but only if
 - (i) The proposed construction and landscaping activities (except for minor grubbing, clearing of debris, pruning, sodding, seeding, or other similar activities) do not occupy or modify the 100-year floodplain (or the 500-year floodplain for critical actions) or the wetland;
 - (ii) Appropriate provision is made for site drainage that would not have an adverse effect on the wetland; and
 - (iii) A permanent covenant or comparable restriction is placed on the property's continued use to preserve the floodplain or wetland.

Inapplicability - §55.12(c)

Incidental Discussion

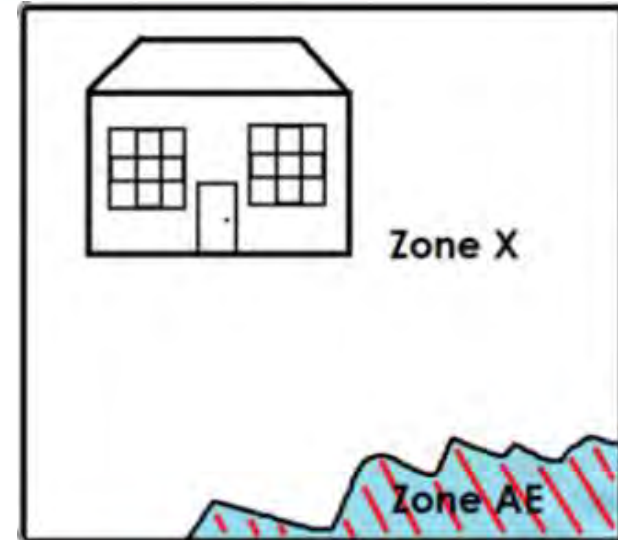
No, project must be rejected.

Scenario 2: Building is in the 100-year floodplain, and there is a floodway on the property.



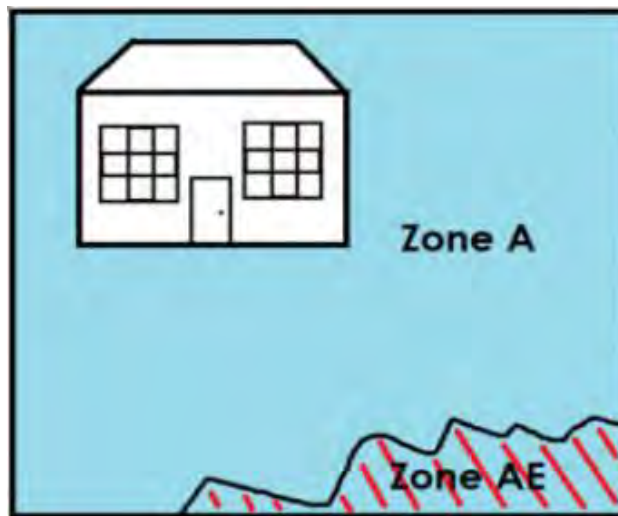
Scenario 1: Building is not in a floodplain, but there is a floodplain on the property.

Possibly, if all conditions are met.



Scenario 3: Building is not in a floodplain, but there is a floodway on the property.

Possibly, if all conditions are met.



Inapplicability - §55.12(c)

§55.12(c), continued – All of Part 55 does not apply to the following types of actions:

- Financial Assistance for a project on any non-wetland site in a floodplain when FEMA has issued:
 - A LOMA or LOMR or LOMR-F that removed the property from the FEMA designated floodplain location, or
 - A Conditional LOMA or Conditional LOMR or Conditional LOMR-F if HUD or the RE's approval is subject to the requirements or conditions of the Conditional LOMA/LOMR/LOMR-F.



Inapplicability - §55.12(c)



§55.12(c), continued – All of Part 55 does not apply to the following types of actions:

- Housing vouchers under Section 8 existing housing program and other forms of rental subsidy that are not project-based
- Activities to increase access to those with special needs – ADA compliance.

Initial Screening

1. Do any of the exceptions at 55.12(c) apply?
2. If no, is the project located in a floodplain?
3. If yes, do any of the exceptions at 55.12(b) apply?
4. If no, do any of the exceptions at 55.12(a) apply?
5. If yes, complete the 5-step process. If no, complete the 8-step process.



Overview of 8-Step Process

8-Step Process:

- **Step 1.** Determine whether the proposed action is located in 100-year floodplain (or 500-yr for critical action)
- **Step 2.** Publish “[Early Public Notice](#)” of the proposal to consider an action in the floodplain (15 day minimum comment period)
- **Step 3.** Evaluate practicable alternatives to locating the proposed action in a floodplain
- **Step 4.** Identify the potential impacts associated with occupancy and modification of the floodplain



Overview of 8-Step Process

8-Step Process:

- **Step 5.** Design or modify the action to minimize adverse impacts and preserve the beneficial values of the floodplain
- **Step 6.** Reevaluate whether proposed action is practicable
- **Step 7.** Publish “**Final Public Notice**” of decision to identify why there is “no practicable alternative,” and the alternatives and mitigation measures adopted (7 day minimum comment period)
- **Step 8.** Implement proposed action with mitigation measures



Step 1 – Floodplain Determination

Step 1: Is my project in a floodplain?

- Use **FEMA maps** to determine if project is in flood hazard area. Check for FEMA flood maps on-line or hard copy.
- FEMA Map Service Center:
 - <https://msc.fema.gov/>
- Create FIRMETTE, or obtain flood information from other source
- Mark the site on the map
- Use to document the ERR



Step 1 – Floodplain Determination

Step 1: Is my project in a floodplain?

- **Not in a floodplain**

- FEMA designated as **Zone C** or **Zone X (unshaded)**

- **500-Year Floodplain**

- FEMA designated as **Zone B** or **Zone X (shaded)**

- **100-Year Floodplain**

- FEMA designated as **Zone A***
- * Any Zone with an A (A, AE, A1-A30, AO, AR, A99)

- **Floodway**

- FEMA designated as **Zone AE (hatched)**

- **Coastal High Hazard Area**

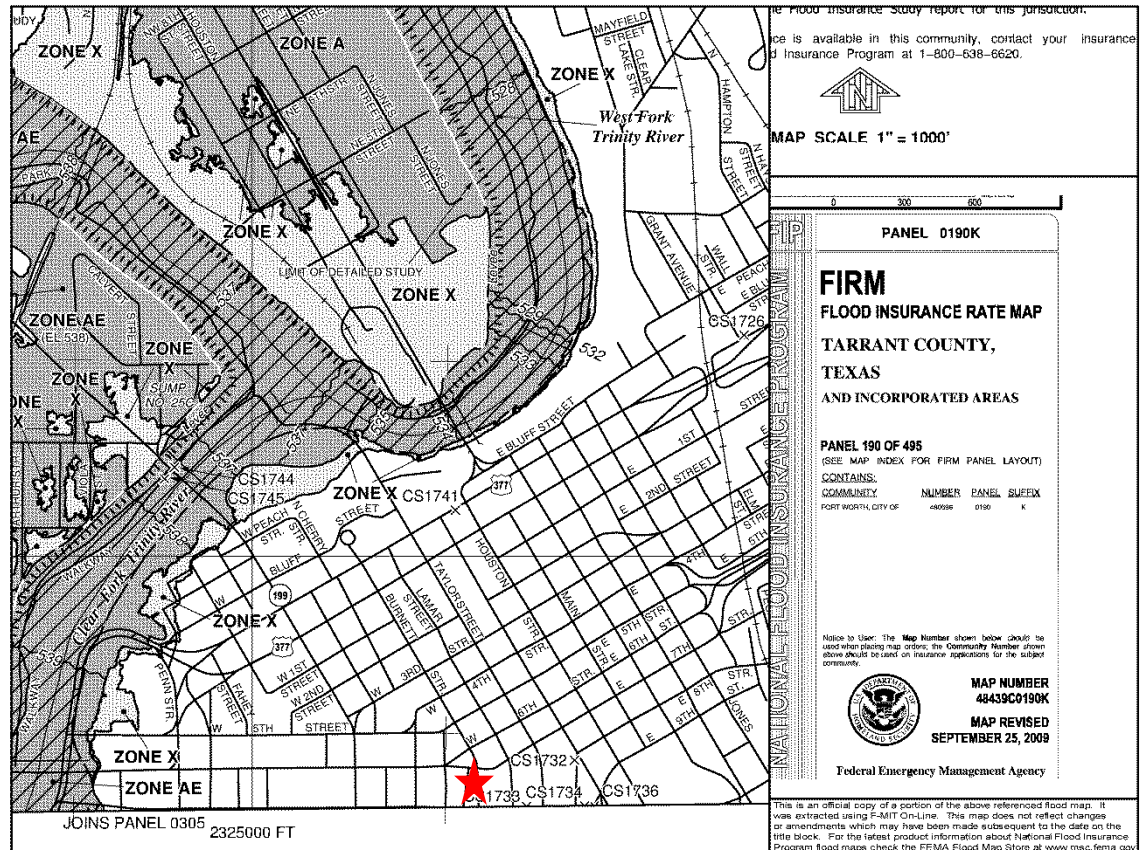
- FEMA designated as **Zone V**

Step 1 – Floodplain Determination

Step 1: Is my project in a floodplain?

FEMA Map Service Center:

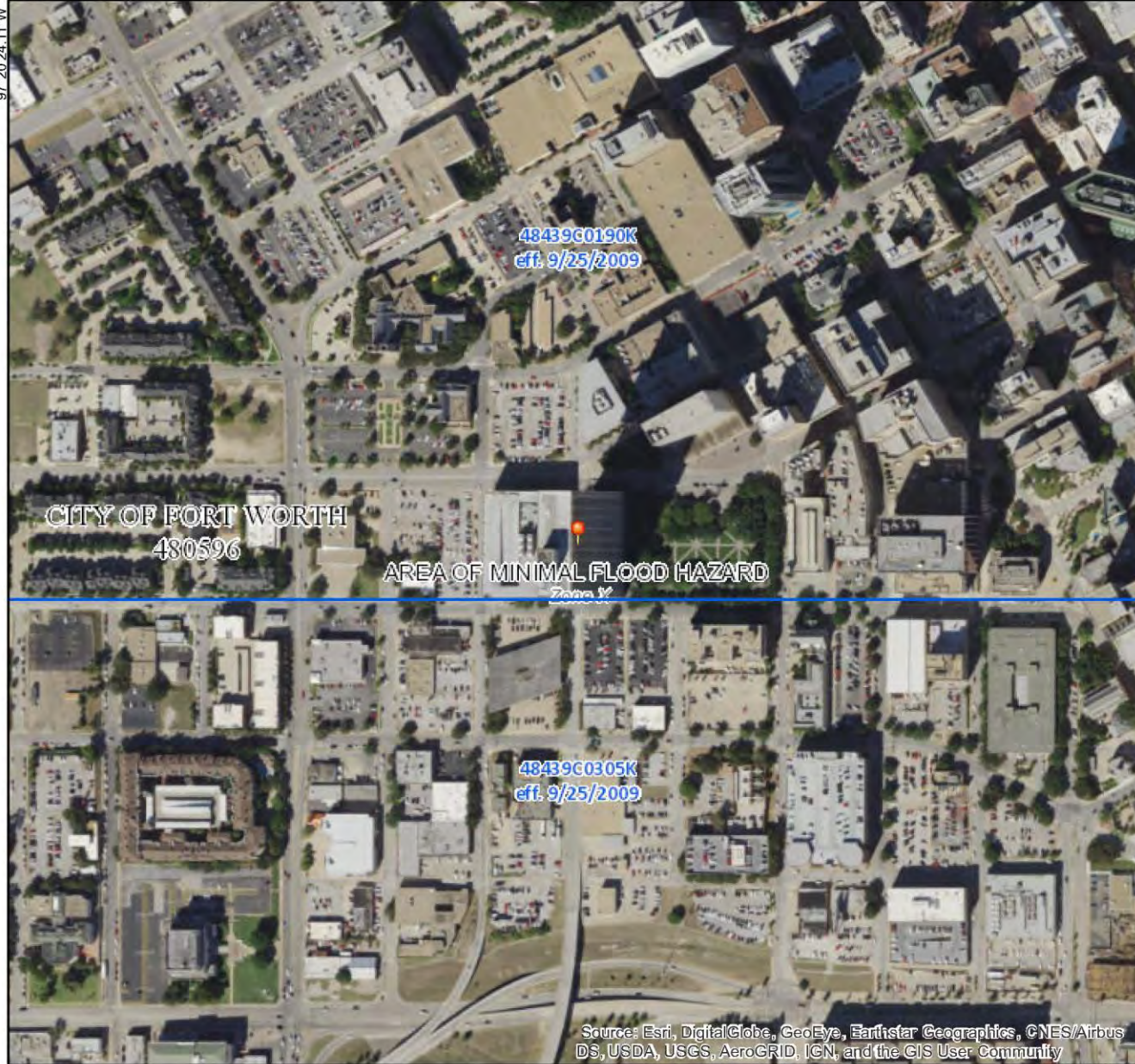
<http://msc.fema.gov>



National Flood Hazard Layer FIRMette



32°45'17.08"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth
		Regulatory Floodway Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/27/2018 at 11:44:10 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


0 250 500 1,000 1,500 2,000 Feet 1:6,000 32°44'46.82"N

97°20'24.11"W

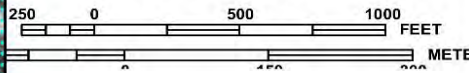
97°19'46.65"W

Step 1 – Floodplain Determination





MAP SCALE 1" = 500'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0153F

FIRM
FLOOD INSURANCE RATE MAP
CHATHAM COUNTY,
GEORGIA
AND INCORPORATED AREAS
PANEL 153 OF 455
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHATHAM COUNTY	130030	0153	F
SAVANNAH, CITY OF	135163	0153	F

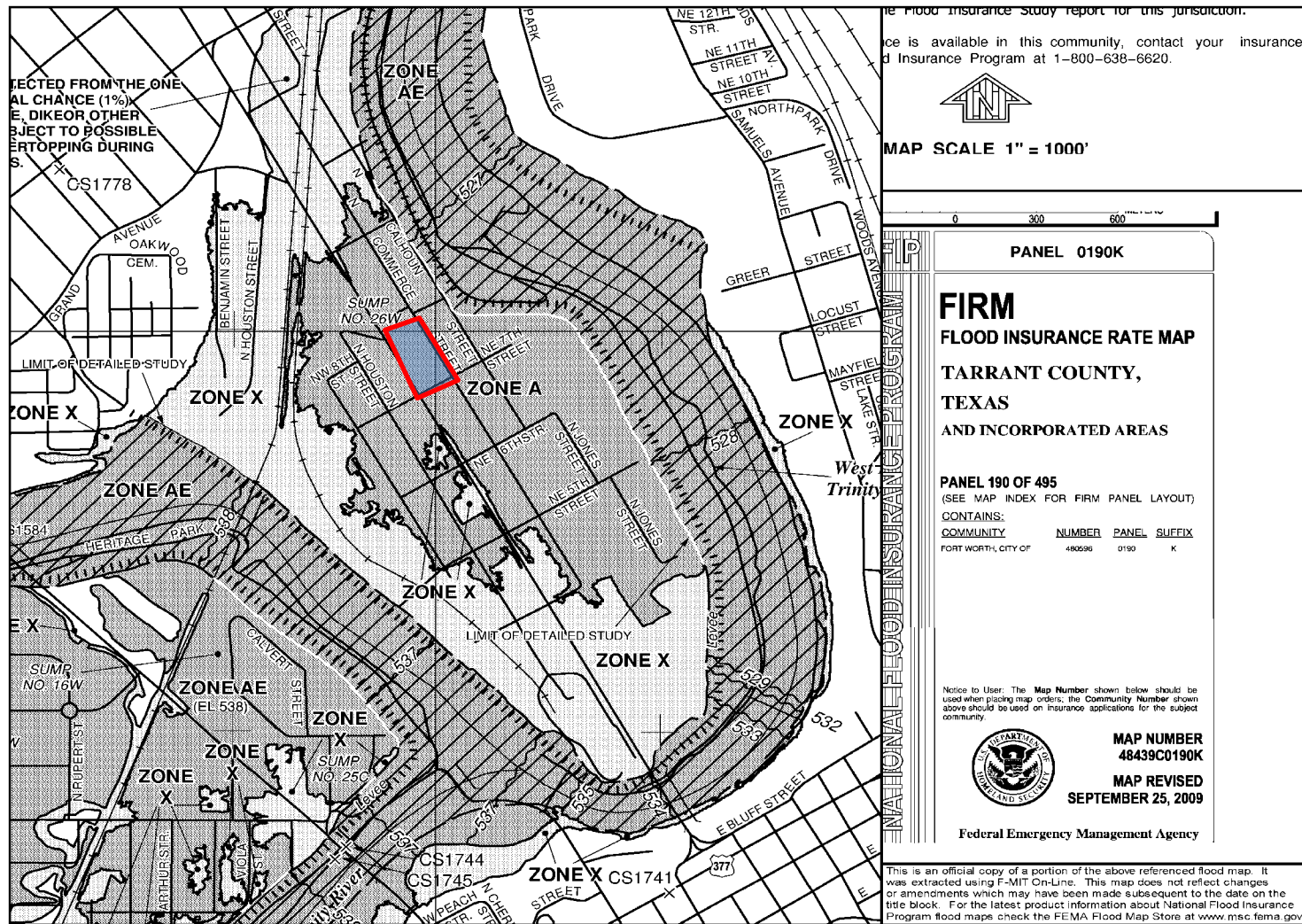
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
13051C0153F
EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Step 1 – Floodplain Determination



National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth
		Regulatory Floodway Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

32°46'21.39"N



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

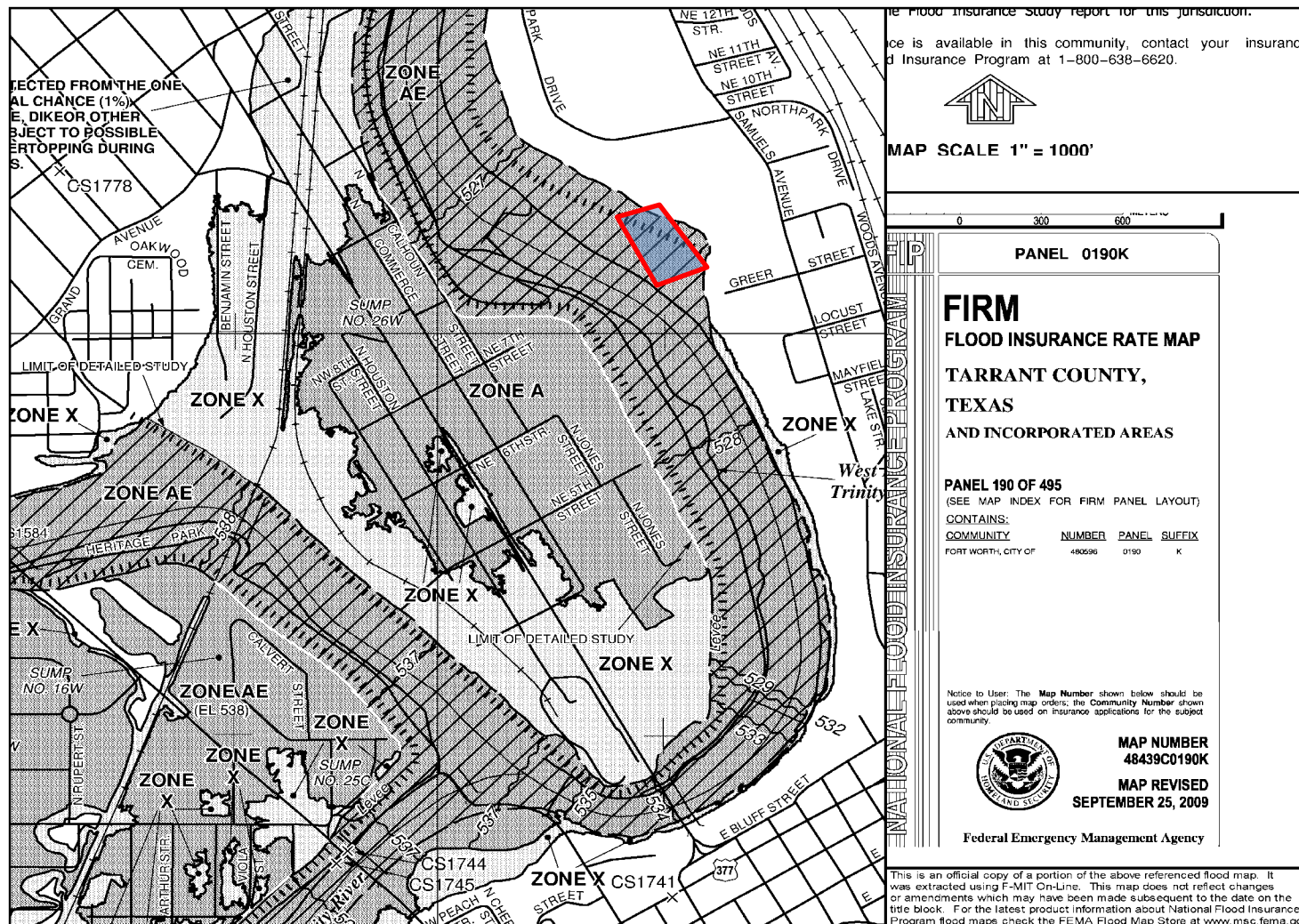
0 250 500 1,000 1,500 2,000 Feet 1:6,000 32°45'51.13"N

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Step 1 – Floodplain Determination



See the Flood Insurance Study report for this jurisdiction.

If insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 1000'

0 300 600

PANEL 0190K

FIRM FLOOD INSURANCE RATE MAP TARRANT COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 190 OF 495
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
FORT WORTH, CITY OF 480590 0190 K

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER

48439C0190K

MAP REVISED

SEPTEMBER 25, 2009

Federal Emergency Management Agency

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National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

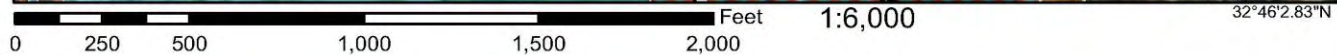
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth
		Regulatory Floodway <i>Zone AE, AO, AH, VE, AR</i>
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
MAP PANELS		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Profile Baseline
		Hydrographic Feature
		Digital Data Available
MAP PANELS		No Digital Data Available
		Unmapped

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/27/2018 at 11:51:08 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

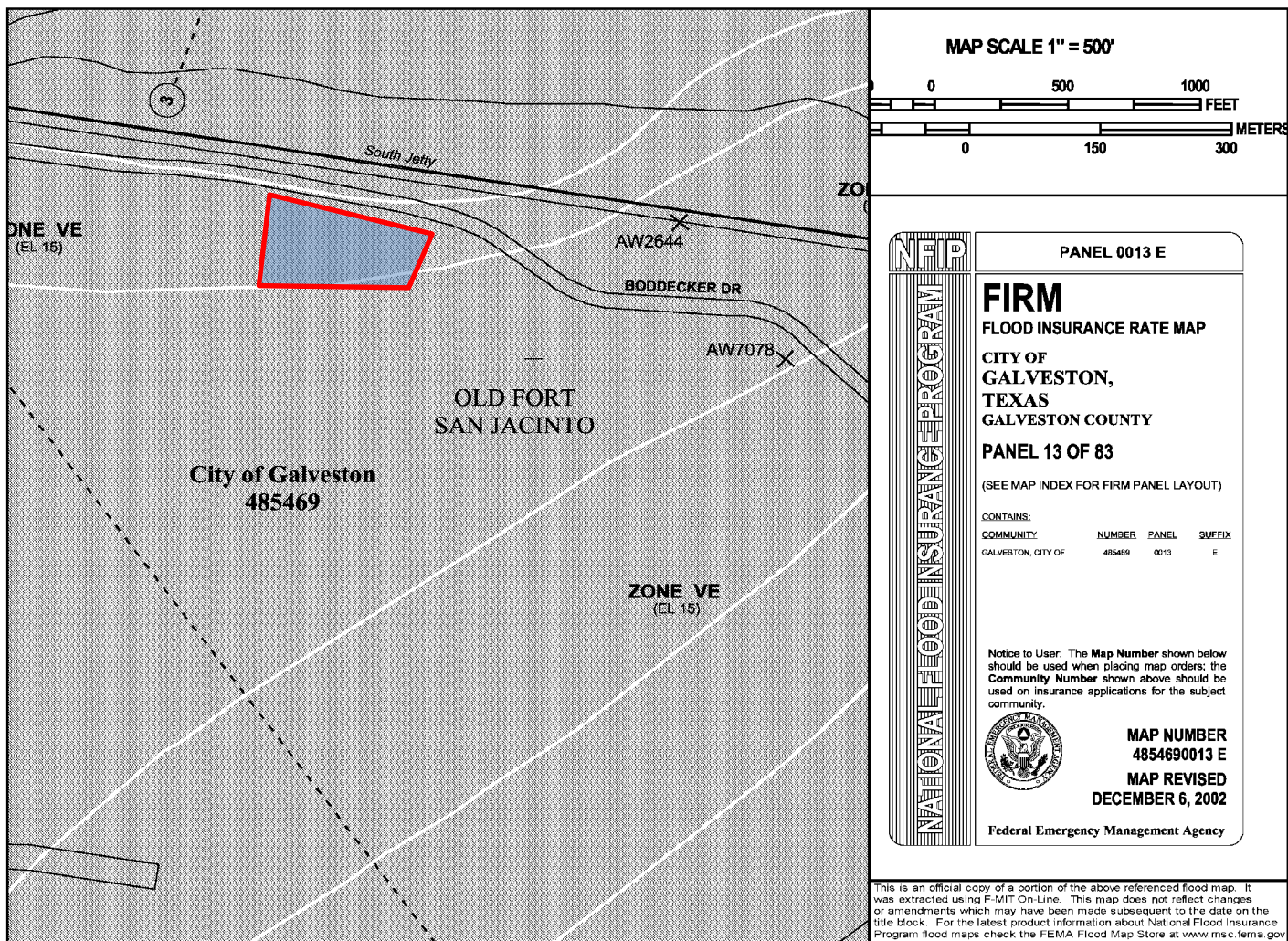
This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

32°46'33.08"N



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Step 1 – Floodplain Determination



National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Regulatory Floodway Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation 20.2
		Cross Sections with 1% Annual Chance Water Surface Elevation 17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
OTHER FEATURES		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

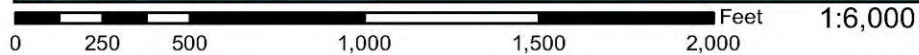
29°20'16.80"N

94°45'0.17"W



94°44'22.71"W

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



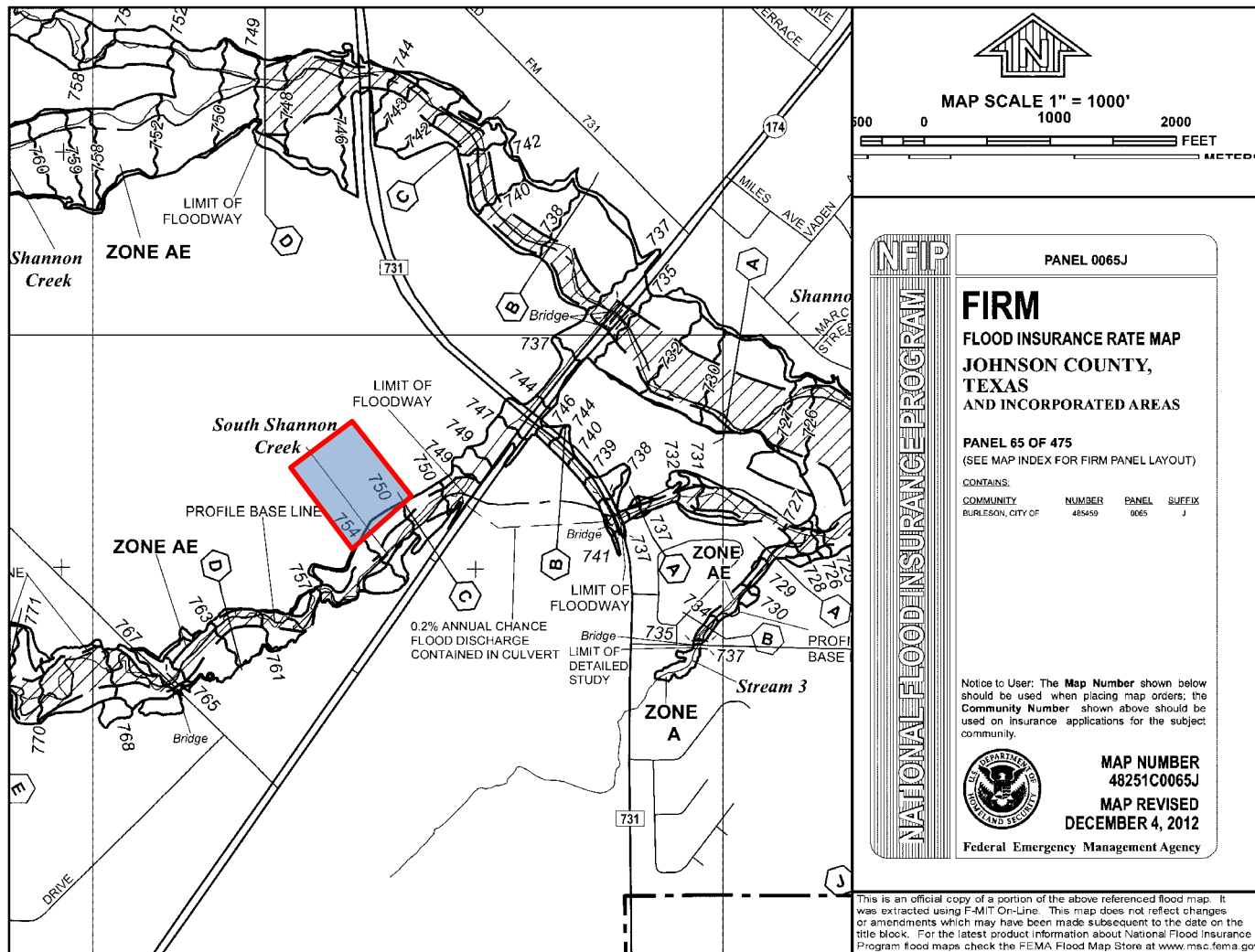
29°19'45.43"N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/27/2018 at 11:55:32 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Step 1 – Floodplain Determination



Step 1 – Floodplain Determination

Step 1: Is my project in a floodplain?

If project area is **unmapped** by FEMA, utilize “*best available information*”:

- FEMA Community Status Book
<https://msc.fema.gov/>
- U.S. Corps of Engineers
- Community Flood Administrators
- U.S. Geological Survey maps
- Soils maps (e.g., alluvial soils) - USDA Natural Resources
- Conservation Service
- State departments of water resources
- County public works
- Local flood control or levee districts
- Contract survey or study by licensed consulting engineer
- Supplement above with aerial photos, topographic maps, site visit

Step 2 – Early Public Notice

Step 2: Early Public Review



- Notify public at earliest possible time of consideration of a proposal in 100-year floodplain (or 500-year floodplain for critical actions).
- Must be published in local printed news medium
- Must be sent to agencies and individuals with interest in the proposed action
- 15 day minimum comment period
- State name, location, project description, acres in floodplain and RE contact information
- Sample notices:
<https://www.hudexchange.info/resource/3191/early-notice-and-public-review-of-a-proposed-activity-floodplain/>

Step 3 - Alternatives

Step 3: Identify and Evaluate Practicable Alternatives

- Alternative sites (outside floodplain)
- Alternative methods that achieve the same project objective/purpose
- “No Project” Alternative
- *Practicable*: measured by general concept of site feasibility – natural, social, economic, legal factors.
- RE shall consider feasible technological alternatives, hazard reduction methods and related mitigation costs, and environmental impacts when reviewing practicable alternatives.



Step 4 - Impacts

Step 4: Identify Potential Direct and Indirect Impacts

- Two areas of concern:
 - Impacts to Lives and Property
 - Impacts to Floodplain
- Three types of impact:
 - Positive & Negative
 - Concentrated & Dispersed
 - Short- and Long-Term
- Does project encourage future Floodplain development?



Step 5 - Mitigation

Step 5: Minimize, Restore, Preserve

- **Minimize** – rigorous, demanding standard – “reduce harm to smallest possible degree.” Far beyond mitigate or alleviate
- **Restore** – re-establish environment in which the natural & beneficial floodplain values can operate
- **Preserve** – prevent modification to natural floodplain or maintain as closely as possible to its natural state



Step 5 - Mitigation

Step 5: Minimize, Restore, Preserve

Examples:

- Minimize fill in floodplain
- Minimize grading; restore natural contours
- Acquire/relocate non-conforming structures
- Preserve natural drainage
- Maintain/restore wetlands and riparian buffers
- Control urban runoff & storm water discharge
- Minimize tree cutting
- Elevate and floodproof structures
- Scale back size/scope of project
- Deed restrictions/covenants



Step 6 – Re-evaluation

Step 6: Re-evaluate Proposal and Alternatives

- Is project still feasible considering:
 - Impacts to floodplain (Step 4)
 - Minimization actions and opportunities to restore & preserve floodplain values (Step 5)

If not, and in light of Steps 4 & 5, do alternatives rejected in Step 3 appear feasible? Prepare table to compare adverse impacts of alternatives

- If neither proposed project nor alternatives are acceptable, the alternative is no action



Step 7 – Final Notice

Step 7: Public Explanation

- If no practicable alternative, inform the public. Publish in newspaper. 7 day minimum comment period.
- Notice must include:
 1. Reasons why project must be located in floodplain
 2. List of alternatives considered
 3. All mitigation measures to be taken and actions to restore and preserve natural and beneficial values
- Sample notices:

<https://www.hudexchange.info/resource/3191/early-notice-and-public-review-of-a-proposed-activity-floodplain/>



Step 8 - Implementation

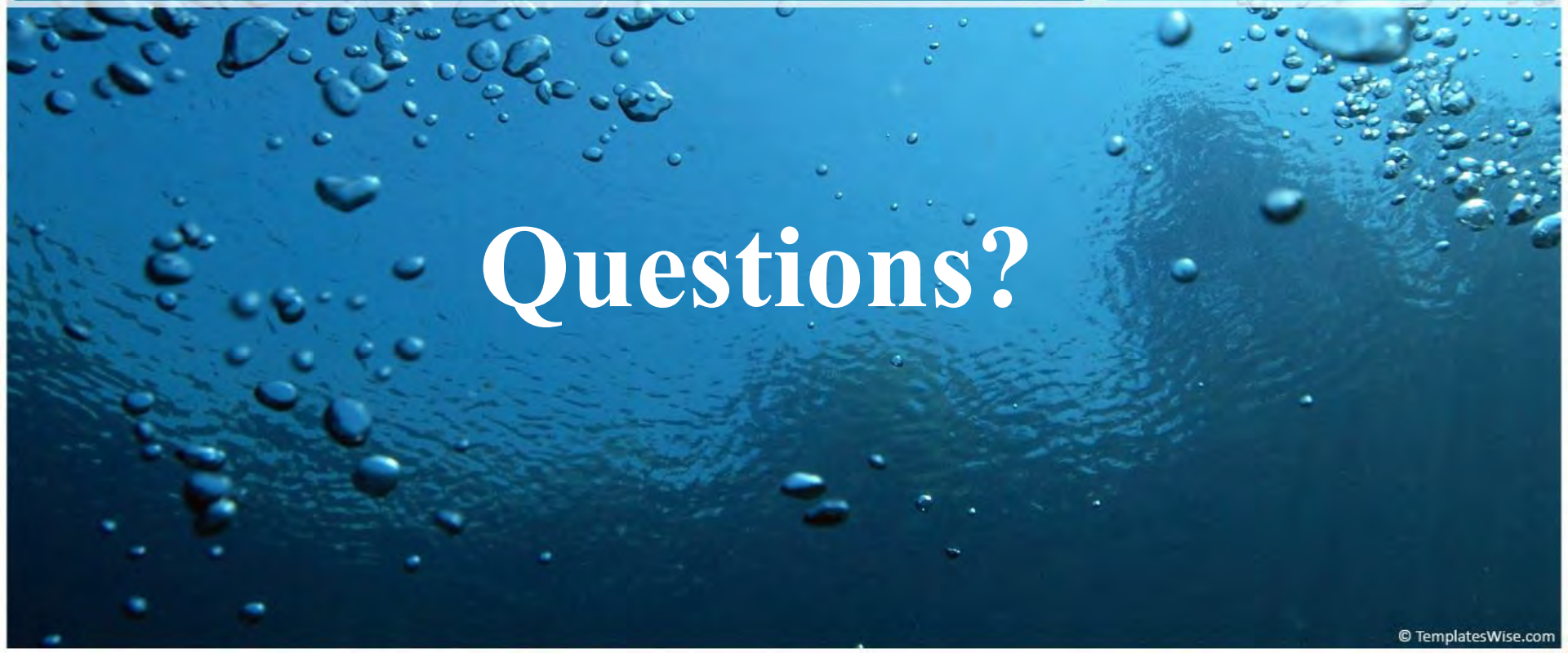
Step 8: Implement Project

- RE has **continuing responsibility** to ensure that measures in Step 7 are implemented.
- Documentation (§55.27) must show:
 - Actual sites were identified for consideration as practicable alternatives outside of floodplain
 - Reason for non-selection of above sites as practicable alternatives
 - Minimization measures have been applied to the project design
- Sample 8-step process:
<https://www.hudexchange.info/resource/3190/floodplain-management-8-step-decision-making-process/>



ERR Documentation

- ***Identification of Floodplain*** - Document mapping or identification source:
 - FEMA FIRMette Maps
 - Include project location on map
- ***Evaluation of Impacts*** –
 - **8-Step Analysis** (24 CFR Part 55.20)
 - Early Notice
 - Final Notice
- ***Incorporation of Mitigation & Conditions into Project***
 - FONSI Notice
 - Certified RROF
 - Contracts



Questions?

Wetlands Protection

**24 CFR Part 58.5(b)(2) &
Part 50.4 (b)(3)**



How are Wetlands Defined and Identified?

"those areas that are inundated or saturated by surface or ground **water** at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of **vegetation** typically adapted for life in saturated **soil** conditions. Wetlands generally include swamps, marshes, bogs and similar areas."

- Definition of wetlands as used by the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) since the 1970s for regulatory purposes.

Wetlands Require the Presence of Three Conditions:

Hydric **soils**



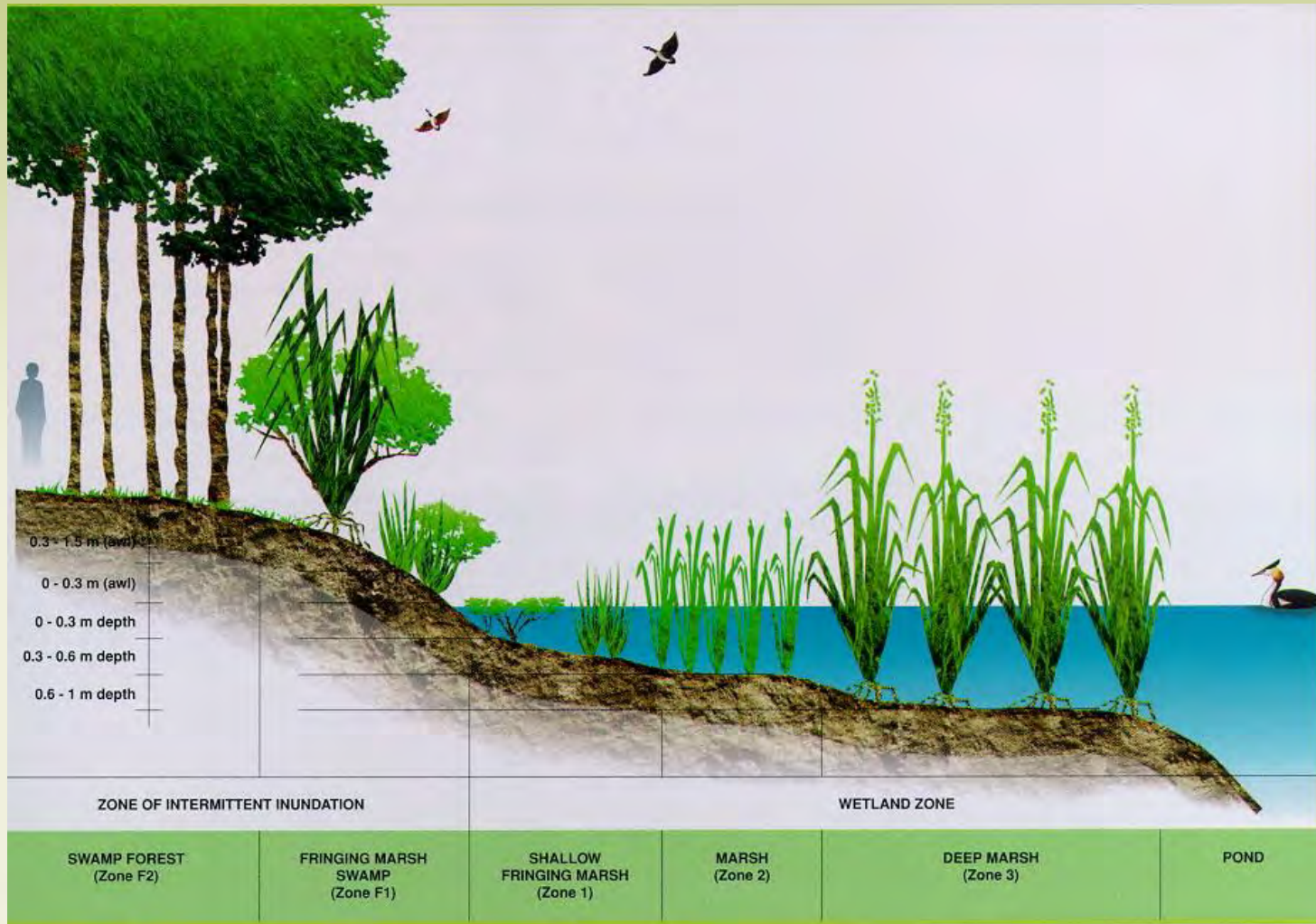
Hydrophilic **vegetation**



Year-round or seasonal **water**



Wetland Types



Wetland Characteristics

- Wetlands may not be wet year-round and, in fact, **some of the most important wetlands are seasonally dry**
- Wetlands are often found in association with **floodplains**
- Wetlands may be “waters of the U.S” – and therefore subject to the jurisdiction of the Corps of Engineers, a.k.a., “**jurisdictional**” wetlands
- But protection also extends to “**isolated**” wetlands – that is, “**non-jurisdictional**”



VALUE OF WETLANDS



Value of Wetlands



Wetlands are among the most valuable....

...but least understood of all natural resources

- Wetlands are the link between land and water, where the flow of water, the cycling of nutrients and the energy of the sun meet to produce **highly productive ecosystems**
- In this transition zone between land and water, they provide **flood control**, acting as reservoirs to absorb excess water

Wetlands serve multiple beneficial purposes ...



- act as filters, **removing pollutants**, including metals, from waters
- **habitat** for great variety of plant and animal species, some endangered, that have evolved to live in the wetland's unique conditions
- provide for **aquifer recharging**
- shoreline **erosion control**
- **recreation and aesthetics**

WETLAND REGULATIONS



Wetland Regulations

Wetlands are primarily protected by **two** authorities that discourage activities in wetlands ...

Executive Order 11990, “Protection of Wetlands”(1977)

“...**avoid** to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to **avoid** direct or indirect support of new construction in wetlands wherever there is a practicable alternative...”

Section 404 of the Clean Water Act (1977)

Dredging or filling wetlands (“Waters of the US”) requires a Section 404 permit from the Army Corps of Engineers

24 CFR Part 55

- 24 CFR Part 55 Floodplain Management and Wetland Protection
 - Regulations for implementing E.O. 11990
 - Promulgated December 2013
- Purpose: Avoid to the extent possible
 - Long and short-term adverse impacts associated with destruction or modification of wetlands
 - Avoid support for new construction in wetlands when there is a practicable alternative
- Requires federal agencies to take action to:
 - Minimize destruction, loss or degradation of wetlands
 - Preserve and enhance natural and beneficial values of wetlands

Terms

- New Construction:
 - Includes draining, dredging, channelizing, filling, diking, impounding and related activities
- Wetland
 - See previous discussion on What is a Wetland
 - Includes both wetlands subject to and those not subject to Section 404 of CWA as well as constructed wetlands.

Applicability (§55.11)

- Under E.O. 11990, the decision-making process in §55.20 applies only to Federal assistance for New Construction in wetlands locations.

Wetlands Determination

- HUD/RE makes the determination if the project involves new construction as defined in Executive Order 11990.

If the project does not involve new construction as defined in EO 11990, the project is excluded from wetlands review.

If the project involves new construction that is located in, or affects a wetland, and no exception applies, the 8-Step process must be completed.

8-Step Process

- The 8-Step decision making process follows the same eight steps as for EO 11988, Floodplain Management. Just as for a project in a floodplain, this process requires looking at alternatives, notifying the public and implementing mitigation.
- Wetlands are often associated with floodplains. If the project could impact both a wetland and a floodplain, the 8-Step processes should be combined for both.

Individual Permits under Section 404 of CWA (§55.28)

- If the project will be permitted as an individual Section 404 permit from the U.S. Army Corps of Engineers, HUD/RE is not required to perform Steps 1-5 of 8-Step process so long as:
 - The project is located outside the 100-year floodplain (or 500-year floodplain for critical actions)
 - All wetlands adversely affected by the action are covered by the permit.
- Unless a project is excluded under §55.12, the 8-Step process is required for:
 - New construction in wetlands that are not subject to Section 404 of the CWA (non-jurisdictional wetlands).
 - New construction in wetlands for which the USACE issues a general Section 404 permit.

WETLANDS IDENTIFICATION



Will the Project Affect a Wetland?

Primary Source – USFWS National Wetlands Inventory data mapping

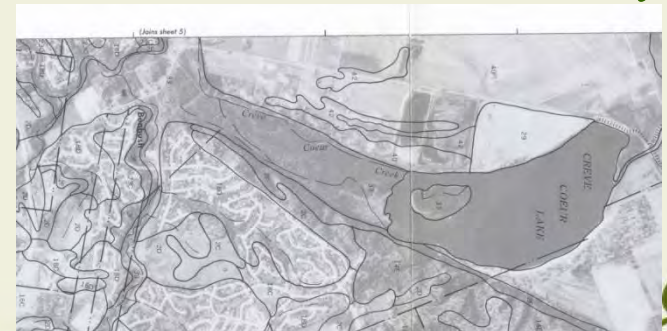
USFWS is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The agency has developed a series of topical maps to show wetlands and deepwater habitats. Digital data can be viewed and downloads are at: <http://www.fws.gov/wetlands/Data/Mapper.html>
Wetlands Code Interpreter: <http://www.fws.gov/wetlands/Data/Wetland-Codes.html>

Other Mapping Sources

USGS Topo Map

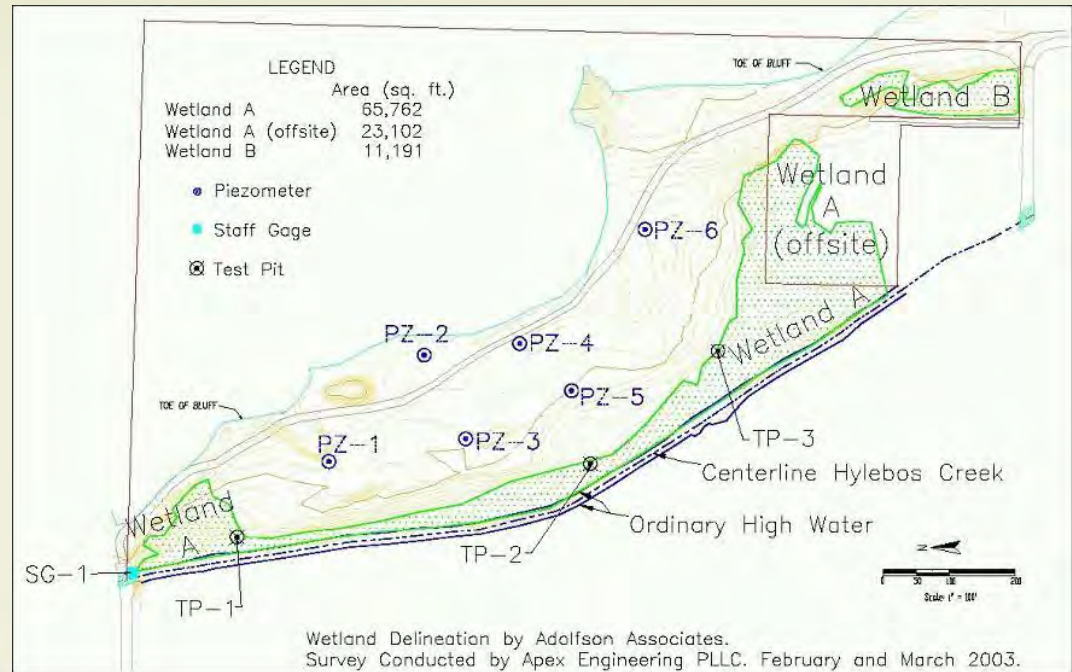


USDA Soil Survey



Determining Project Impacts May Require Specialized Studies

Wetlands Delineation – establishes the boundary between uplands and wetlands, accomplished by a professional



Wetland Mitigation

If effects to a wetland cannot be avoided:

- Avoid and minimize the impacts to the greatest extent practicable (preferred alternative)
- Consider different types of mitigation
 - Restoration
 - Creation
 - Enhancement
 - Preservation
- Consider “compensatory mitigation.”

ERR DOCUMENTATION

ERR Documentation

- ***Identification of wetland*** - Document mapping or identification source:
 - NWI Maps
 - USGS Topo Maps
 - USDA Soil Survey Maps
 - Include project location on all maps
 - Wetlands delineation studies
- ***Evaluation of Impacts*** –
 - **8-Step Analysis** (24 CFR Part 55.20)
 - USACE Section 404 permits
- ***Incorporation of Mitigation & Conditions into Project Contracts***
 - The terms and conditions of the Section 404 permit
 - Mitigation described in the 8-Step analysis
 - Any compensatory mitigation

Questions?



Endangered Species

§58.5(e) & §50.4(e)

Interior Least Tern
Sterna antillarum
Status: Endangered



- Section 7 of ESA
- ESA Section 7 Consultation Process
- Statutory Checklist

HUD Resources

- HUD Guidance:

<https://www.hudexchange.info/programs/environmental-review/endangered-species/>

- Endangered Species Worksheet:

<https://www.hudexchange.info/resources/documents/Endangered-Species-Worksheet.docx>

Section 7 of Endangered Species Act

West Indian Manatee
Trichechus manatus
Status: Endangered



- Congress passed Endangered Species Act of 1973.
- Section 7 of ESA outlines Federal agency responsibilities
- Section 7 requires Federal agencies to use their authorities to further the conservation of listed species
- Responsible Entity compliance required by 24 CFR Part 58.5(e)
- HUD compliance required by 24 CFR Part 50.4(e)

Federal Agency Consultation Requirements

- Section 7 requires Federal agencies (Responsible Entities) to consult with the Services to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.
 - U.S. Fish and Wildlife Service – terrestrial species
 - NOAA National Marine Fisheries Service – marine species
 - Collectively called “Services”



Loggerhead Sea Turtle
Caretta caretta
Status: Endangered

ESA Section 7 Consultation Protocol

Step 1: Determine whether project is the type that could affect listed species or critical habitat, if present

Step 2: Determine potential presence of listed species

Step 3: Determine potential for adverse impacts

Step 4: “Is Not Likely to Adversely Affect” determination

Step 5: “Is Likely to Adversely Affect” determination



Houston Toad
Bufo Houstonensis
Status: Endangered

Step 1: Determine whether project is the type could affect listed species or critical habitat, if present

Types of activities likely to have “No Effect” on listed species or critical habitat...



Lesser Prairie Chicken

Tympanuchus pallidicinctus

Status: Threatened as of 5/12/2014

- Demolition and construction or placement of a single family residence within a developed lot
- Rehabilitation or renovation activities associated with existing structures (e.g., houses, buildings), including additional structures attached to or associated with the primary structure

Types of activities likely to have “No Effect” on listed species or critical habitat (cont.)

- Acquisition of existing structures (e.g., houses, buildings), including additional structures attached to or associated with the primary structure
- Purchase and placement of playground equipment within existing parks
- Resurfacing, repairing, or maintaining existing streets, sidewalks, curbs, trails, parking lots and/or any other existing paved surfaces where additional ground disturbance, outside of the existing surface is not necessary



Attwater's Greater Prairie Chicken
Tympanuchus cupido attwateri
Status: Endangered

Is this the type of project or action that could realistically have an impact on T&E species?



Willow Flycatcher
Empidonax traillii extimus
Status: Endangered

- If no, then the project is likely to have “**No Effect**” on federally protected species and critical habitat.
- Informal consultation with the Services is not necessary.
- ERR must include documentation supporting of the finding of “**No Effect**”.

Step 2: Determine potential presence of listed species

Are there listed species or critical habitat near my project site?



Big-eared Bat
Corynorhinus townsendii ingens
Status: Endangered

- Define the action area.
 - For purposes of the ESA, the “action area” includes all areas that your project will affect either directly, indirectly, and/or cumulatively, and is not merely the immediate area involved in the project.
- Obtain list of species from the Services (FWS & NMFS)

Species Lists from the Services

Are there listed species or critical habitat near my project site?



River Shiner
Notropis girardi
Status: Threatened

- FWS IPAC Website: <https://ecos.fws.gov/ipac/>
- IPAC will provide information about sensitive resources within the vicinity of a proposed project
- Use species list at FWS and NMFS websites:
 - <http://www.fws.gov/endangered/species/index.html>
 - <http://www.nmfs.noaa.gov/pr/species/esa/>
- And FWS and NMFS critical habitat websites:
 - <http://criticalhabitat.fws.gov/crithab/>
 - <http://www.nmfs.noaa.gov/pr/species/criticalhabitat.htm>

No Effect Determination Based on Finding that No Species Are Present

- If no listed species or critical habitat is identified in the project area, then the project is likely to have “No Effect” on federally protected species and critical habitat.
- Informal consultation with the Services is not necessary.
- The ERR should include all documents used to make this determination, including species lists from the Services’ websites, surveys and/or other documents and analysis showing that there are no species in the action area.



Black-capped Vireo
Vireo atricapilla
Status: Endangered

No Effect Determination Based on Habitat Assessment and Specifics of Project

- RE may make a finding of “No Effect” if you determine, based on any listed species in the area and the specifics of your project, that there are no potential impacts.
- However, this finding must be based on technically valid information.
- For example, if there are species present, and a habitat assessment shows that there is no suitable habitat in the project area, then an “No Effect” finding can be made based on habitat assessment.



Black Bear
Ursus americanus luteolus
Status: Threatened

Step 3: Determine potential for adverse impacts

When species are present and project is type to impact species...



Gulf Coast Jaguarundi
Herpailurus yagouaroundi cacomitli
Status: Endangered

- A special study is conducted by a qualified professional to determine the effects of the project on each species and critical habitat.
- Contact resource experts for assistance— USFWS or NMFS
- Prepare biological assessment for “major construction activities” that would normally require the preparation of an EIS.
- Possible outcomes of findings:
 - May affect, but “ **is not likely to adversely affect**” federally protected species or critical habitat
 - May affect, and “ **is likely to adversely affect**” federally protected species or critical habitat.

Consulting with the Services



Golden-cheeked Warbler
Dendroica chrysoparia Status:
Status: Endangered

- HUD/RE is responsible for interacting with the Services.
- It is the responsibility of HUD/RE to make the determination and conduct all consultations.
- It is not appropriate for a consultant to consult directly with the Services, although they may provide information to HUD/RE for it to make its determination.

Step 4: “Is Not Likely to Adversely Affect” determination

- Effects are expected to be discountable, insignificant, or completely beneficial.
- Discountable effects are extremely unlikely to occur.
- Insignificant effects relate to the size of the impact and should never involve “take.”
- Beneficial effects are contemporaneous positive effects without any adverse effects.
- RE submits findings, determination and all documentation to Services with request for informal consultation.
- Services must concur with “**Not Likely to Adversely Affect**” determination.



Kemp's Ridley Sea Turtle
Lepidochelys kempii
Status: Endangered

Step 5: “Is Likely to Adversely Affect” determination

- For any adverse effects to listed species
- If incidental take is anticipated to occur as a result of the proposed action
- An “is likely to adversely affect” determination requires RE to initiate formal Section 7 consultation.
- Biological Assessment/Evaluation is submitted to Services with request for formal consultation.



Prairie Dawn
Hymenoxys texana
Status: Endangered

Formal Consultation



Red Cockaded Woodpecker
Picoides borealis
Status: Endangered

- Formal consultation will result in a Biological Opinion from the Services
 - Services will determine whether an action is likely to jeopardize a listed species or adversely modify their critical habitats.
 - Provides reasonable and prudent measures to minimize impacts.
 - May provide reasonable and prudent alternatives to the proposed project.
 - Makes exceptions for “incidental take” of listed species (otherwise illegal).

Project Options Resulting from Formal Consultation

- HUD/RE's decision completes formal consultation process:
 - Adopt reasonable and prudent measures or reasonable and prudent alternatives as recommended by Services.
 - Not undertake project
 - Modify proposed action or develop a new alternative and continue formal consultation with Services
 - HUD/RE must notify Services of final decision.



Rose-mallow
Hibiscus dasycalyx
Status: Threatened

ERR Documentation



Poppy-mallow
Callirhoe scabriuscula
Status: Endangered

- The environmental review record should contain one of the following determinations and supporting documentation:
 - No Effect, include a determination that the project does not involve any activities that have a potential to affect species or habitats, evidence that there are no federally listed species in the area, or other analysis supporting a No Effect finding
 - May Affect, Not Likely to Adversely Affect, include all correspondence with Services, including concurrence with finding.
 - Likely to Adversely Affect, include all correspondence with the Services, including the Biological Opinion and HUD/RE final decision.

Questions?

Gopher Tortoise
Gopherus polyphemus
Status: Threatened



Whooping Crane
Grus americana
Status: Endangered



Chiricahua Leopard Frog
Rana chiricahuensis
Status: Threatened



American Burying Beetle
Nicrophorus americanus
Status: Endangered

Noise Abatement and Control – §58.5(i)(1) & 51B

- Background
- HUD Noise Standards
- Conducting Noise Assessment
- Requirements for Noise in the Normally Unacceptable and Unacceptable Range

HUD Resources

- HUD Guidance:

<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control>

- Noise Worksheet (for CEST projects):

<https://www.hudexchange.info/resources/documents/Noise-Abatement-and-Control-CEST-Worksheet.docx>

- Noise Worksheet (for EA projects):

<https://www.hudexchange.info/resources/documents/Noise-Abatement-and-Control-EA-Worksheet.docx>

Background

- Congress passed Noise Control Act of 1972, as amended by Quiet Communities Act of 1978
- Implemented for HUD projects through regulations 24 CFR Part 51 Subpart B
- Identified among related laws and authorities at 58.5 that apply to CEST and EA level projects

Background

Noise affects the quality of housing and its economic value...

- Comply with the *Housing Act of 1949* by creating and enforcing a standard for “**a decent home in a suitable living environment**”
- Comply with the *HUD Act of 1965* mandate “to **determine feasible methods of reducing the economic loss** and hardships suffered by homeowners...**following the construction of airports...**”
- Comply with *Compatible Land Uses at Federal Airfields* to **not promote incompatible land uses** within the influence of military and other federal air installations

Background

Noise is detrimental for many reasons...

- **Noise affects people's ability to:**
 - Talk to one another
 - Hear threats around them
 - Enjoy recreational pursuits
 - Learn and concentrate
- **Noise causes harm** – hearing loss, stress, and threats to mental and social wellbeing.
- **Noise reduces property values and resale potentials.**

Background

Common Audible Sounds

- **Rustle of leaves in wind:** 10 dB
- **Average whisper:** 20 dB
- **Soft radio music in house:** 40 dB
- **Range of speech:** 48 – 72 dB
- **Noisy urban street:** 90 dB
- **Loud horn at 10 feet:** 100 dB

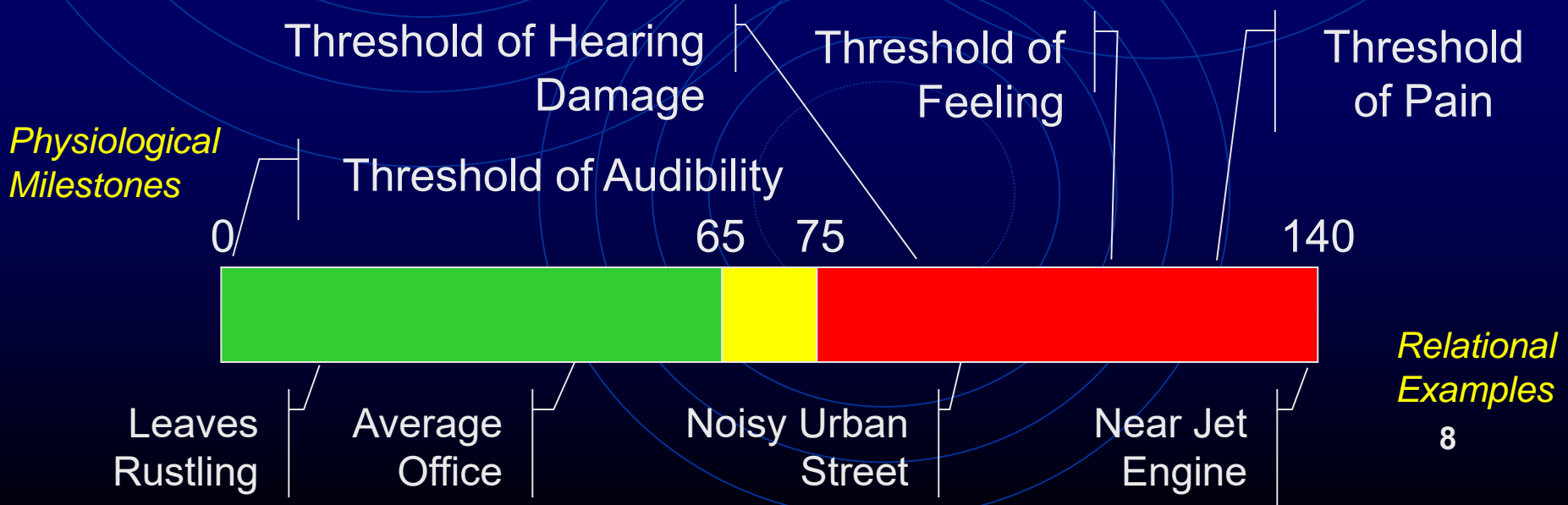
Background

Significance of outdoor noise:

- **Outdoor recreation is degraded or negated**
- **Community cohesion is affected**
- **Direct causal relationship to interior noise levels – if outdoor noise level is 65 dB or less, then indoor noise level will be 45 dB or less with typical construction**

HUD Noise Standard

- Outdoor Standards (24CFR51.103):
 - Acceptable Range: ≤ 65 dB
 - Normally Unacceptable Range: > 65 dB ≤ 75 dB
 - Unacceptable Range: > 75 dB
- Indoor Standard (24CFR51.101(a)(9)): 45 dB Max.



HUD Noise Policy

For projects with noise sensitive uses...

- **New Construction – Prohibit** HUD support for new construction of noise sensitive uses on sites having unacceptable noise exposure that cannot be mitigated [24 CFR 51.101(a)(3)]
- **Rehabilitation – Encourage**, or strongly encourage, noise attenuation features or convert to a land use compatible with high noise levels [24 CFR 51.101(a)(5)]
- **Land Use – Encourage** land use patterns for housing and other noise sensitive urban needs that provide a suitable separation between them and major noise sources [24 CFR 51.100(a)(3)]

HUD Noise Evaluation

HUD uses Day-night Noise Level (DNL) noise descriptor

- Accumulates noise data from major noise generators of concern:
 - airports
 - roadways
 - railroads
 - military and industrial facilities
- Averaged over a 24-hour period
- Weighted 10 dB for nighttime
- Estimated noise level for *at least* 10-years in future

Conducting Noise Assessment

Overview of process...

1. Determine whether project is a noise sensitive use
2. Determine whether project is within proximity to major noise source
3. Gather data needed for analysis
4. Calculate noise level
5. Based on calculated DNL, make finding:
 - **Approve** projects as proposed
 - Require noise **attenuation or mitigation**
 - **Reject** project/seek alternative site(s)

Conducting Noise Assessment

1. Determine whether project is a noise sensitive use

■ What is a noise sensitive use?

■ Places Where People Sleep

- Residential Structures (including Shelters)
- Hospitals and Rehab Centers
- Nursing homes

■ If project does not involve a noise sensitive use, a noise assessment is **not** required.

Conducting Noise Assessment

2. Determine whether project is within proximity to a major noise source or sources

■ Is project within...

- 15 miles of a civil or military airport?
 - 1000 feet of a major roadway?
 - 3000 feet of a railroad?
- If project is not within threshold distances, a noise assessment is **not** required.

Conducting Noise Assessment

3. Gather data needed for analysis

Gather information about the project and area

- **Maps of the site and surroundings**
 - Site plan and vicinity map
 - Aerial photograph – e.g., Google Earth
 - Topographic map – shows elevation contours
- **Local land use plans (future, proposed) and zoning**
- **Is outdoor use a component of the project?
(balconies, patios, decks)**
- **Visit site if possible**

Conducting Noise Assessment

3. Gather data needed for analysis

Gather information about the noise sources

■ Airports

- Contact airport or air installation manager or Federal Aviation Administration (FAA). <http://www.airnav.com/airports/>
- Most airports/airfields have noise plan that includes Noise Contours.
- Nearly all installations that make noise have a plan for managing it.
- At Military Installations, ask for their “Air Installation Compatible Use Zone” Plan
 - It is intended to be shared with local planners and developers.

Conducting Noise Assessment

3. Gather data needed for analysis

Gather information about the noise sources

- **Roadways** - Contact State DOT, city/county transportation agency or regional planning agency
 - Annual Average Daily Traffic (AADT or ADT)
(<https://www.fdot.gov/statistics/trafficdata/default.shtm>)
 - Percentage Distribution of automobiles and medium and heavy trucks
 - Traffic projections needed for minimum 10 years into future
 - Percentage Nighttime Use

HUD Definitions – Medium and Heavy Trucks

MEDIUM TRUCKS














- 10,000-26,000 gross vehicle weight
- Includes 2-axle, 6-wheel vehicles (w/ dual tires in rear, aka, “dualies”)

HEAVY TRUCKS

- Above 26,000 gross vehicle weight and 3 or more axles
- Buses with more than 15 seated passengers
- If not possible to separate trucks that are heavy from those that are not, treat all trucks as “heavy”

Source: HUD *Noise Guidebook*, pg 56

FHWA Vehicle Classifications

FHWA Vehicle Classifications			
<p>1. Motorcycles 2 axles, 2 or 3 tires</p> 	<p>2. Passenger Cars 2 axles, not heavy 1- or 2-axle trailers</p> 	<p>3. Pickups, Panels, Vans 2 axles, 4 for single units (Can track 1 or 2 axle units)</p> 	<p>4. Buses 2 or 3 axles, full length</p> 
<p>5. Single Unit 2-Axle Trucks 2 axles, 2 front (dash-over-front, step-down)</p> 	<p>6. Single Unit 3-Axle Trucks 3 axles, single unit</p> 	<p>7. Single Unit 4 or More-Axle Trucks 4 or more axles, single unit</p> 	<p>8. Single Trailer 3- or 4-Axle Trucks 3 or 4 axles, single trailer</p> 
<p>9. Single Trailer 5-Axle Trucks 5 axles, single trailer</p> 	<p>10. Single Trailer 6 or More-Axle Trucks 6 or more axles, single trailer</p> 	<p>11. Multi-Trailer 3- or 4-Axle Trucks 3 or 4 axles, multiple trailers</p> 	<p>12. Multi-Trailer 5-Axle Trucks 5 axles, multiple trailers</p> 
<p>13. Multi-Trailer 7 or More-Axle Trucks 7 or more axles, multiple trailers</p> 			

Correlating HUD Vehicle Definitions *with* FHWA Vehicle Classifications

HUD Noise Guidebook

- **Autos**

[FHWA #1,2,3]

- **Medium Trucks**

[FHWA #5]

- **Heavy Trucks**

[FHWA #4, 6-13]]

FHWA Vehicle Classes

1. Motorcycles
2. Passenger Cars
3. Pickups (Two-Axle, Four-Tire Single Unit Vehicles)
4. Buses (full-length)
5. Two-Axle, Six-Tire, Single-Unit Trucks
6. Three-Axle, Single-Unit Trucks
7. Four or More Axle, Single-Unit Trucks
8. Four or Fewer Axle Single-Trailer Trucks
9. Five-Axle Single-Trailer Trucks
10. Six or More Axle Single-Trailer Trucks
11. Five or fewer Axle Multi-Trailer Trucks
12. Six-Axle Multi-Trailer Trucks
13. Seven or More Axle Multi-Trailer Trucks

Conducting Noise Assessment

3. Gather data needed for analysis

Gather information about the noise sources

- **Railroads** - Obtaining data: try Federal Railroad Administration (FRA) at-grade crossing inventory database and safety map:
 - safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/xingqryloc.aspx;
 - <http://fragis.fra.dot.gov/GISFRASafety/>
 - Take crossing # from signal mast or
 - Get street name at crossing
 - Perform search to get RR contact information and data on train numbers

Conducting Noise Assessment

3. Gather data needed for analysis

Assumptions are **ALLOWABLE** when better data is not obtainable

■ Roadways

- Average speed = actual observed speed for cars and trucks, or maximum allowable speed for cars and trucks
- Nighttime traffic = 15% of ADT

■ Railroads

- 50 Cars per Freight Train
- 8 Cars per Passenger Train
- Locomotives: 1 if Electric and 2 if Diesel
- Nighttime traffic = 15% of ADT

Conducting Noise Assessment

3. Gather data needed for analysis

Gather information about the noise sources

■ Industrial Facilities

- Identify factories, warehouses, heavy industrial uses within proximity of project site
- Hours of operation
- Such facilities may generate loud, impulsive sounds



Conducting Noise Assessment

4. Calculate noise level

- Noise exposure is calculated for major noise sources typically encountered - aircraft, road vehicles, and trains
- Sound levels are combined for a total projected noise environment at a point – (Sound levels are not added together, rather mathematical factors combine levels based on the difference between two levels being compared)
- Impact noises are handled separately – such as sonic booms, stamping mills, rock quarries, artillery, and explosives training or testing

Conducting Noise Assessment

4. Calculate noise level

- Select Noise Assessment Location – “NAL”
- Measure distance from NAL to noise source
- Input noise source data (variables) into on-line calculator
 - Search for “HUD Noise DNL”
- Calculate combined DNL
- Re-calculate DNL accounting for barriers & mitigation as appropriate

<https://www.hudexchange.info/programs/environmental-review/dnl-calculator>

Conducting Noise Assessment

4. Calculate noise level

Noise Assessment Location (NAL)

- NAL is located 6.5 feet (2 meters) in front of the façade of the proposed building at the point that is closest to the noise source
- If more than one building, use building nearest to noise source
- May have more than one NAL for a large site, a site with more than one major noise source, or multiple uses.

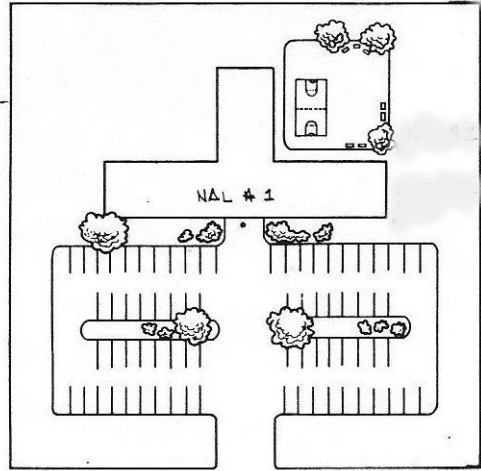
<https://www.hudexchange.info/programs/environmental-review/dnl-calculator>

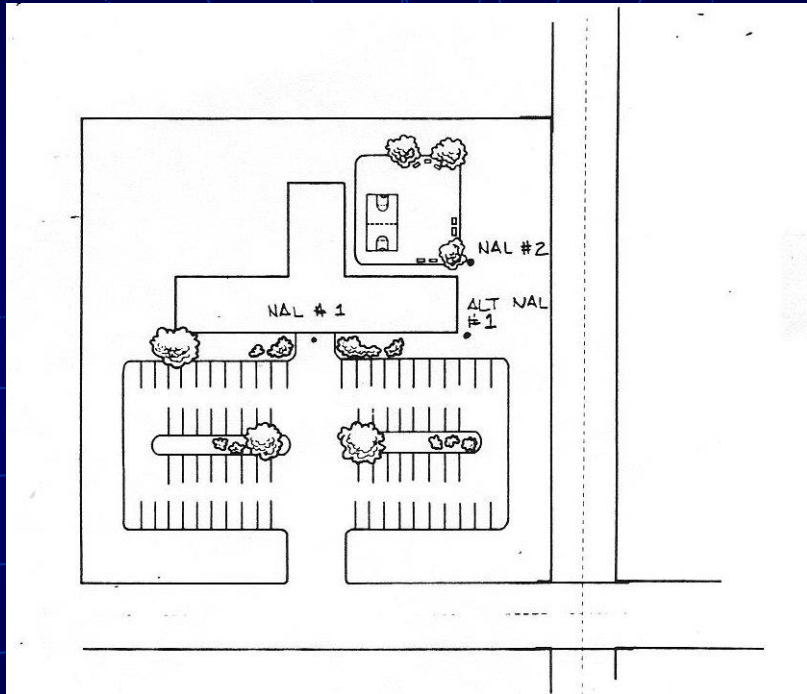
Conducting Noise Assessment

4. Calculate noise level

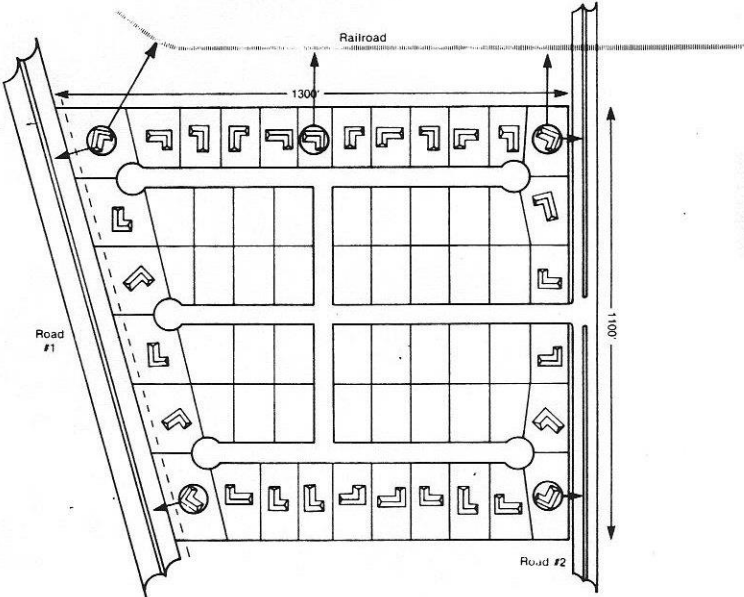
Measure the distance from NAL to center of noise source—Use Satellite Imagery (e.g., Google Earth)

- **Roadways and Railways**
 - If travel ways are symmetrical, simply measure to center
 - If asymmetrical travel ways, measure to near edge of nearest and far edge of farthest, add and divide by 2
 - Non-adjacent paths - calculate each track as separate source
- **NALs On Site**
 - Multiple buildings – use building nearest to noise source
 - Other points of interest on the site (patios/decks, tot lots, pools, performance art venues, etc.)



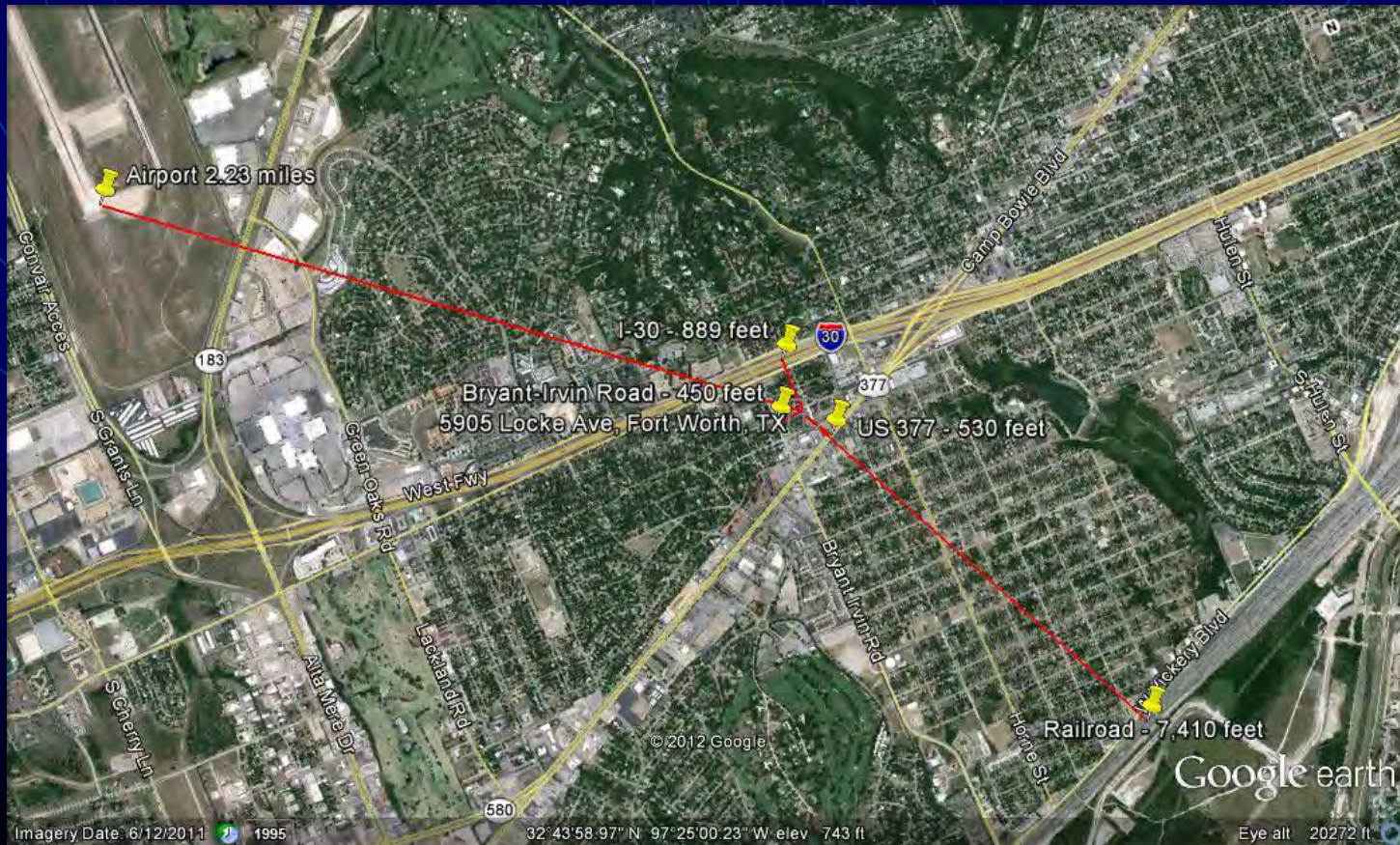


Choosing NAL



Conducting Noise Assessment

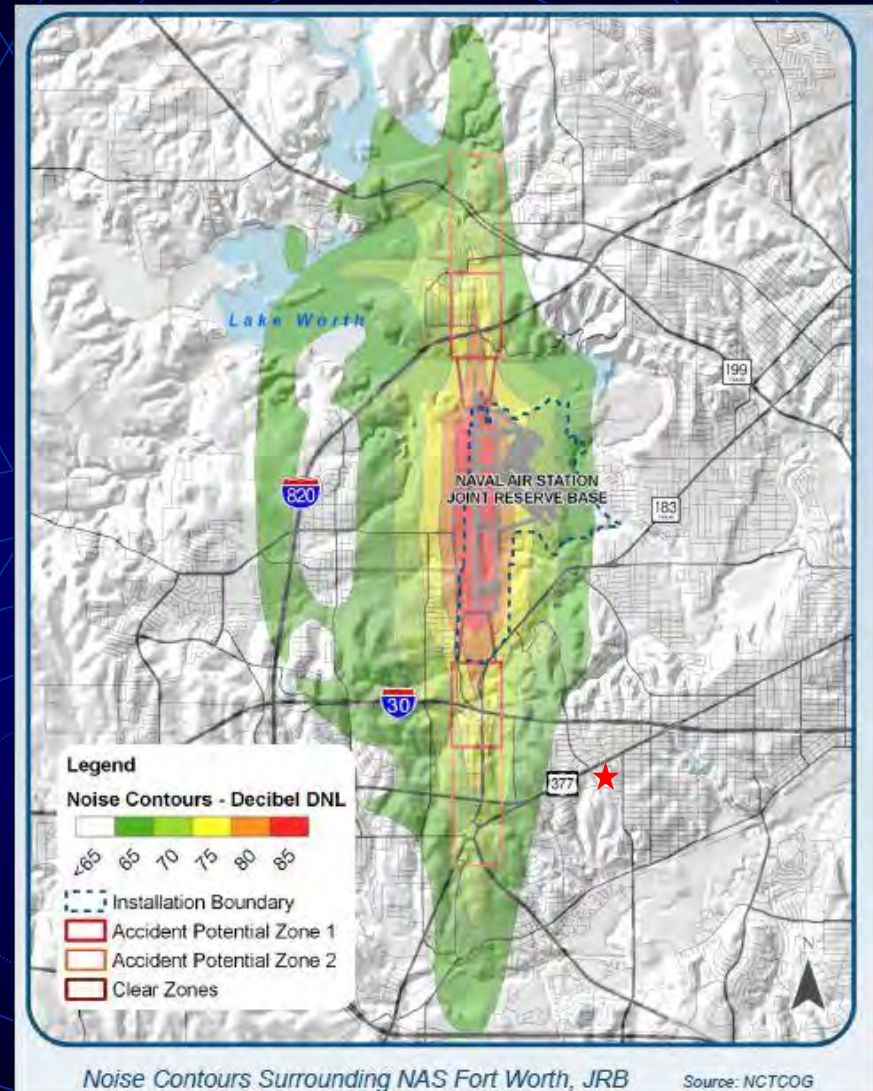
Let's Try One! 5905 Locke



Conducting Noise Assessment

Gather Information: Airport Noise

- Project location is outside of airport noise contours
- Estimate used in noise calculation
 - Used 50 dB for site exposure



Conducting Noise Assessment

Gather the Information: Roadways

5905 Locke

- Roadways – I-30 distance from site = 889 ft; (151,800 total) 129,940 light vehicles per day at 60 mph; 21,859 heavy trucks per day at 55 mph; 15% of ADT is at night.
- Roadways – US 377 ft from site = 530 ft; (20,830 total) 20,100 light vehicles per day at 35 mph; 729 trucks per day at 35 mph; 15% of ADT is at night
- Roadways – Bryant-Irvin Rd 450 ft from site; 19,038 light vehicles per day at 40 mph; 15% of ADT is at night.
- No loud impulsive sounds

Calculate Noise

HUD on-line DNL calculator



****Use Microsoft *Internet Explorer* browser**

– **Not Google *Chrome*** (unless cache cleared ea.
time)

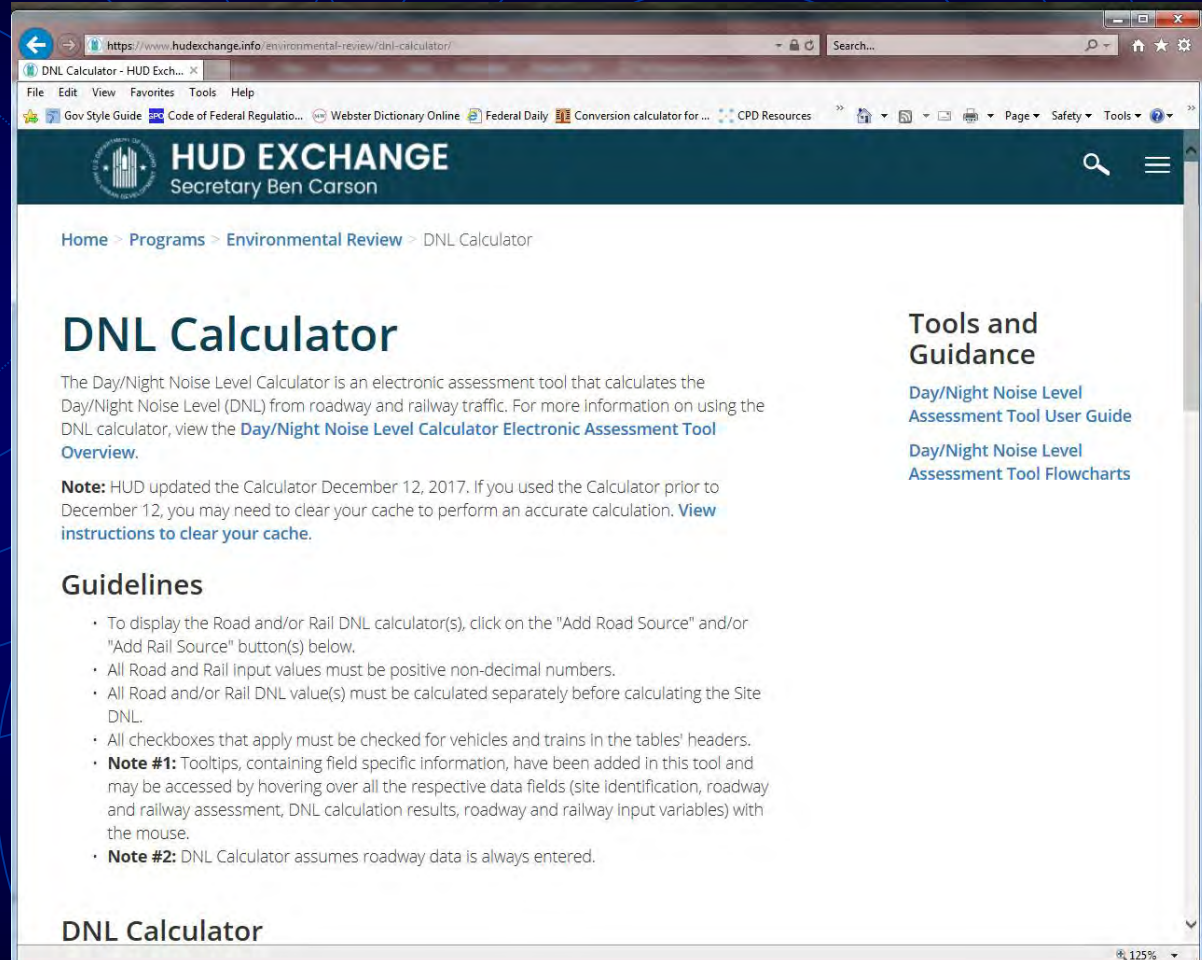
Conducting Noise Assessment

Calculate noise level

- Go to DNL Calculator website

- <https://www.hudexchange.info/programs/environmental-review/dnl-calculator>

- Search for “HUD DNL Calculator”



The screenshot shows a web browser window displaying the HUD Exchange website. The page title is "DNL Calculator" and the URL is "https://www.hudexchange.info/environmental-review/dnl-calculator/". The page features a navigation menu with "Home", "Programs", and "Environmental Review". The main content area includes a "DNL Calculator" heading, a brief description of the tool, a "Tools and Guidance" sidebar with links to user guides and flowcharts, and a "Guidelines" section with a list of instructions for using the calculator. The page is displayed at 125% zoom.

HUD EXCHANGE
Secretary Ben Carson

Home > Programs > Environmental Review > DNL Calculator

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview](#).

Note: HUD updated the Calculator December 12, 2017. If you used the Calculator prior to December 12, you may need to clear your cache to perform an accurate calculation. [View instructions to clear your cache](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Conducting Noise Assessment

Calculate noise level

- Add site information
- Click on “Add Road Source”

HUD EXCHANGE
Secretary Ben Carson

DNL Calculator

Site ID:

Record Date:

User's Name:

Airport Noise Level:

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources:




Combined DNL including Airport:

Site DNL with Loud Impulse Sound:

Conducting Noise Assessment

Calculate noise level

- Add road data
- Click on “Calculate Road #1 DNL”

 **HUD EXCHANGE**  


Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="889"/>	<input type="text"/>	<input type="text" value="889"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="55"/>	<input type="text" value="Car Speed"/>	<input type="text" value="55"/>
Average Daily Trips (ADT)	<input type="text" value="129940"/>	<input type="text"/>	<input type="text" value="21859"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="60.6"/>	<input type="text"/>	<input type="text" value="70.2"/>
Calculate Road #1 DNL	<input type="text" value="70.6"/>	<input type="text" value="Reset"/>	

Conducting Noise Assessment

- Road 2

 HUD EXCHANGE 🔍 ☰


Road # 2 Name:

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="530"/>	<input type="text"/>	<input type="text" value="530"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="20100"/>	<input type="text"/>	<input type="text" value="729"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text"/>	<input type="text" value="58"/>
Calculate Road #2 DNL	<input type="text" value="59"/>	<input type="button" value="Reset"/>	

Conducting Noise Assessment

- Road 3

 **HUD EXCHANGE** 🔍 ☰

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="450"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="40"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="19038"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="53.9"/>	<input type="text"/>	<input type="text"/>
Calculate Road #3 DNL	<input type="text" value="53.9"/>	<input type="button" value="Reset"/>	

<https://www.hudexchange.info/>

Conducting Noise Assessment

Calculate noise level

- No railroad noise
- Used 50 dB for airport noise
- No loud impulse sounds
- Calculate DNL for all sources
- **DNL = 70.9 dB DNL**

Next steps?

The screenshot shows the HUD Exchange DNL Calculator web application. The browser address bar displays the URL: <https://www.hudexchange.info/environmental-review/dnl-calculator/>. The page header includes the HUD Exchange logo and the text "Secretary Ben Carson".

The calculator interface includes the following fields and results:

- Night Fraction of ADT: 15
- Road Gradient (%):
- Vehicle DNL: 53.9499
- Calculate Road #3 DNL: 53.9499 (with a "Reset" button)
- Buttons: "Add Road Source" and "Add Rail Source"
- Airport Noise Level: 50
- Loud Impulse Sounds?: Yes No
- Combined DNL for all Road and Rail sources: 70.9548
- Combined DNL including Airport: 70.9548
- Site DNL with Loud Impulse Sound: (field is empty)
- Calculate button (highlighted in green)

The Windows taskbar at the bottom shows icons for Internet Explorer, File Explorer, Chrome, and other applications. The system tray indicates a zoom level of 125%.

Conducting Noise Assessment

5. Based on calculated DNL, classify as
- **Acceptable** Range: <65 dB
 - **Normally Unacceptable** Range: 65 dB ≤ 75 dB
 - **Unacceptable** Range: >75 dB

Next step depends on classification. If **Acceptable**, project is in compliance for this factor. Add documentation to ERR and move on. If **Normally Unacceptable** or **Unacceptable**, evaluate compliance options...

Unacceptable Noise Zones (>75 dB)

New construction:

- Best option: Choose more compatible, non-residential use for property
- Construction in UNZ normally requires Environmental Impact Statement (EIS)
- RE may waive EIS requirement if:
 - Developed area w/no other environmental issues at site
 - Indoor noise levels can achieve 45 dB DNL
 - No noise sensitive uses in outdoor ancillary space subject to >65 dB DNL

Rehabilitation: Incorporate noise mitigation, commensurate with scope of project

Normally Unacceptable Noise Zones (65>75)

New construction - largely undeveloped area:

- Conduct EIS

New Construction in developed area:

- Reject site or mitigate
 - Interior spaces: <45 dB DNL
 - Ancillary spaces <65 dB DNL

Rehabilitation:

- Incorporate noise mitigation commensurate with scope of project

Noise Attenuation

Three Options Available for Attenuating Noise...

- **Site Design** (Moving Noise-Sensitive Uses away from the Noise Source)
- **Barriers or Berms** (Constructing Physical Barricades to Noise)
- **Special Acoustical Construction in the Building** (Least Preferred because it does Nothing to Mitigate Exterior Noise)

Noise Attenuation

Site Design

- **Distance**
 - Doubling the Distance from a Sound Source can Reduce its Intensity by as much as 6 dB
 - This is an Important consideration for the Upper Levels of Multi-Story Buildings too
- **Noise-compatible Land Uses as Buffers**
 - Parking, Maintenance Facilities, and Utility Structures
- **Buildings as Shields**
 - Structures with Noise-tolerant Uses (Offices, Retail, etc.) can Block the Sound Energy from More Sensitive Uses Behind Them
- **Building Orientation**
 - Windows can be Removed or Reinforced along the most Impacted Wall
 - Site Buildings to Use Topography (Hills and Depressions) as Barriers

Noise Attenuation

Barriers and Berms

- Barriers block the sound energy that travels on a line-of-sight between the source and the receiver
- Generally Not Effective for Units Above the Second Floor
 - Can Still Improve Outdoor Recreation Areas
 - Upper Floors Benefit from Increased Distance from the Source
- Use the Barrier Performance Module to document mitigation effect of barrier:
 - <https://www.hudexchange.info/programs/environmental-review/bpm-calculator/>
 - Requires inputs regarding position of receiver (resident), wall, and noise source, as well as relative heights of these

Barriers



Noise Attenuation

Acoustical Construction

- Building Materials Transmit Sound at Different Rates
- Wall Systems can be Specially Constructed to Insulate Against Noise
 - Allowed by 24CFR51.104(a)(1)
 - Each Component has a Sound Transmission Classification (STC)
- Documenting Mitigation from acoustical construction
 - If using manufacturer STC information, use “Figure 19” form from Noise Guidebook (on HUD Exchange noise pages) to document mitigation effect
 - Alternatively, the Sound Transmission Classification Assessment Tool (STraCAT) on HUD Exchange can be used to calculate mitigation of commonly used materials electronically - but cannot currently accept custom input of manufacturer STC values for materials not already in system



Questions?

24 CFR 58.5(1)(2)

Site Contamination Review

Evaluating Site Contamination for HUD Assisted Projects

Background

Screening for Small Scale Projects

Screening for Large Scale Projects

Resources

HUD Mission & Policy

Decent, safe,
sanitary home
and suitable living
environment

...all property
proposed for HUD
funding be free of
hazardous
substances ...

That could effect
the health and
safety of
occupants (24 CFR
58.5(i)(2))

A solid orange vertical bar is positioned on the left side of the slide, extending from the top to the bottom.

Public Health & Financial Implications

What is Site Contamination?

The release



of a hazardous, toxic, or chemical substance,



including petroleum products



on or in proximity to the project site...

What is Site Contamination? (Cont'd)

... in large enough quantity as may be harmful



to the environment



to humans or other living organisms



de minimis?

Pathways to Exposure

TYPES OF
MEDIA

Soil

Groundwater

Surface
Water

Air

EXPOSURE
PATHWAYS

Ingestion

Inhalation

Dermal
Contact

Standard of Review

The responsible entity shall use current techniques employed by qualified professionals to undertake investigations determined necessary.

- U.S. EPA CERCLA
- ASTM International Standards
- 24 CFR 58.5(i)(2)(iv)

Strict Liability - CERCLA

Levels of Site Assessments

In-house Screening

Phase I

Phase II

Cleanup and other studies

Levels of Site Assessment

In-house
Screening
for Small
Scale
projects:

Single-family new construction

Single-family rehabilitation

Multi-family minor rehabilitation

Utility Replacement

Tiered reviews for minor
rehabilitation

Levels of Site Assessment

Phase I
Large
Scale
Projects: Multi-family new construction

Acquisition

Major rehabilitation

Change in land use

Phase II
Other
Studies: Known or suspected
contamination

Remediation and cleanup

In-House Screening Protocol

The In-House Screening should entail these steps:

- Site Visit
- Government Records Search
- Historic Use Research
- Analysis

Site Visit



**STEP 1:
OF THE PROPERTY**



**STEP 2:
ADJOINING
PROPERTIES**

Document Site Visit

Checklist

Photographs

Notes on adjacent land uses and facilities

Names and types of operations

Supporting documentation

→ Look around
the entire
project site.

→ What do you
see?

Types of Contaminated Sites



Landfills



Refineries, Large Commercial and Industrial Facilities



Dry Cleaners



Gas Stations



Land with Oil and Gas Production



Storage Drums on Site



PCB-Contaminated Containers on Site

Types of Contaminated Sites

GAS STATIONS WITH
UNDERGROUND STORAGE
TANKS



Types of Contaminated Sites

DRY CLEANERS



Types of Contaminated Sites

REFINERY



Types of Contaminated Sites

PCB-CONTAMINATED
ELECTRICAL EQUIPMENT



Types of Contaminated Sites

LAND WITH OIL PUMPS



Government Records Search

Review government records for contaminated sites on or near proposed site:

- Federal
- Tribal
- State
- Local

Historic Use Research

Confirm the property has no past uses that may have left contamination:

Multifamily

Commercial

Industrial

Public

Historic Use Research



SANBORN OR OTHER HISTORIC MAPS



AERIAL PHOTOGRAPHS



ONLINE LOCAL PLANNING/ASSESSOR



REAL ESTATE WEBSITE



PRIOR PHASE I



NETR ONLINE

Recap: Site
Contamination
Review Steps In-
house
Screening of
Small-Scale
Projects

- **Site Visit**
- **Government records search** – federal, state, local, & tribal
- **Historic use research** – for projects that involve multi-family housing (five or more dwelling units and including leasing) or non-residential property

Analysis –
Evaluate
Information

Put all the information together &
evaluate

Subject site & adjacent properties

Environmental conditions on the site

Listed facilities with compliance
issues

Analysis -
Evaluate
Information

If
compliance
violations or
active sites:

Violations resolved? How long ago?

Remediated to residential use
standard?

Off-site contamination migration
contained?

Historic contamination cleaned up

Oversight agency documentation
cleaned up to residential use level

Evaluate the Information



Document ERR



Determination: Site free from contamination

Levels of Site Assessments

Phase I

Phase II

Cleanup and other studies

ASTM E1527 – 13 Environmental Site Assessment



Phase I



Large scale project



Multi-family



Nonresidential property



Change in land use



Contamination known/suspected


Report must follow the format in Appendix X4



Valid for 180 days



180 days – 1 year requires updating in accordance with the standard



>1 year – new Phase I



Include recommendations in Report

Phase I ESA

Phase I ESA
Identifies:

Recognized Environmental Conditions
(RECs)

Historical RECs (HRECs)

Controlled RECs (CRECs) – not remediated
to unrestricted residential use standard

Vapor Migration (VEC)

Phase I ESA – User Responsibility



Read the entire report



Is it complete?



Data Gaps explained?



Potential for Vapor intrusion analyzed

Phase I ESA – User Responsibility



Findings = RECS explained



Logic & reasoning for all findings
must be stated



Opinions/conclusions must be
stated

Phase I Non-Scope Considerations



Past agricultural use: pesticide or herbicide use



Lead



Asbestos



Radon



Mold



May be included at user's request



User
Determines
Next Steps

PHASE II

Level of Site Assessments



Confirm presence/absence of contamination



Information identifying, defining, & evaluating property conditions



Includes testing & sampling plan

Phase II –
ASTM E 1903
– 11
Environmental
Site
Assessments
Process

Possible
outcomes from
Phase II

REC(s) identified in the Phase I
do not require any further
investigation, remediation, or
other measures

Contamination review is
complete; document
environmental review record

Possible
outcomes from
Phase II

Contaminants
present above
regulatory
thresholds

- Reject
- Remediate

Levels of Site
Assessments

Cleanup and other studies

Remediation Standard – Closing the Loop

- **Whenever**: Contamination potential on a site confirmed through Phase II testing (or previously known)
- **Always complete necessary steps to obtain**: “No Further Action Required” (NFAR) letter from local, state, tribal, or federal oversight agency

Questions?

Environmental Justice

24 CFR Part
58.5(j) &
50.4(l)



What is
Environmental
Justice?

Environmental Justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.

The Problem

Research has found that racial minorities, ethnic groups, and low-income populations commonly have the following characteristics regarding EJ:

- **Disproportionately exposed to pollutants in their communities;**
- **Disproportionately suffer health effects as a result of such exposure;**
- **Generally disempowered in the project decision-making process.**

Common Scenarios for EJ Concerns

SCENARIO 1: SITING A PROJECT TO SERVE EJ COMMUNITY NEAR POLLUTION SOURCE (E.G. AFFORDABLE HOUSING)

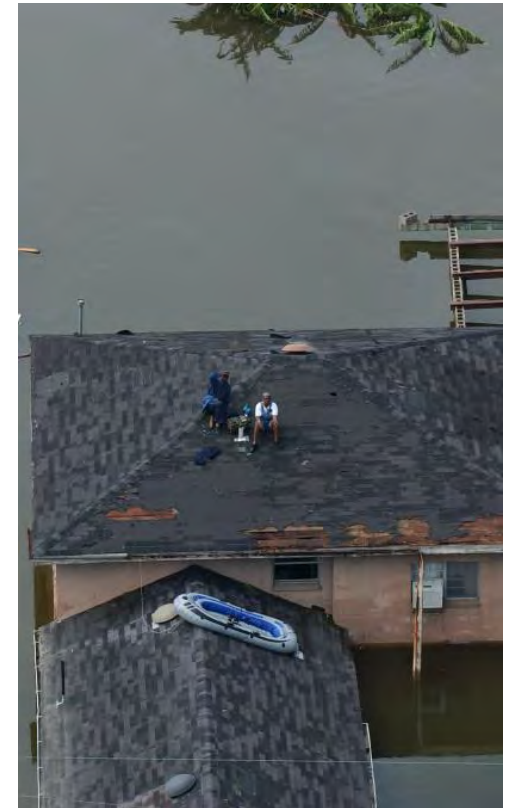


OR

SCENARIO 2: SITING A POLLUTION SOURCE IN EJ COMMUNITY



Example Environmental Impacts Posed to EJ Communities



Executive
Order 12898:
*Federal Action
to Address
Environmental
Justice In
Minority
Communities*

- **Directs Federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority, low-income populations and Native Americans.**
- **Intended to promote nondiscrimination in Federal programs that affect human health and the environment, as well as provide minority and low-income communities with access to public information and public participation.**
- **Complements Title VI of the Civil Rights Act and the Fair Housing Act (or Title VIII of the Civil Rights Act of 1968, as amended).**
- **Established an Interagency Working Group on Environmental Justice**
 - Chaired by the EPA Administrator
 - Comprised of the heads of 17 departments or agencies
 - HUD was specifically named in the EO

What is an EJ Community?

Comprises one of the following:

- **Minority (appreciably higher percent minority than the jurisdiction)**
- **Low-income (less than 60% Area Median Income (AMI))**

Disproportionality

Means that the burdens of the project are born by an Environmental Justice Community in greater proportion than their relative numbers in the community.

➤ **Updated in 2012 (2012-2015)**

Guided by 4 key principles:

- **A comprehensive, holistic approach to problem solving;**
- **Tribal consultation;**
- **Fairness, equity, nondiscrimination, and equal opportunity;**
- **Transparency and accountability.**

HUD's Environmental Justice Approach

Carried out at a department-wide level through agency regulations, policies, and procedures.

Mechanisms:

- **Incorporating EJ Seamlessly into Typical Operations**
 - **HUD's environmental review policies;**
 - **Site and Neighborhood Standards;**
 - **Tribal consultation;**
 - **Commitment to promoting fairness, equity, and nondiscrimination through AFFH**

Making an EJ Determination Through the NEPA Process

Project Analysis



(adverse impact)

Community Analysis



(disproportionate adverse impact)

Community Partnership

Project Analysis Initial Screening

- **Project type**
- **Project location- geographic area(s)**
- **Demographics of project area (population, income, and racial composition)**
- **Adjacent land uses**
- **Adverse impacts identified elsewhere in the environmental review**
- **Demographics of the reference community where the project is to take place.**
 - **The Reference Community is the larger community (e.g. city or county).**

Determine if EJ Applies

- 1) What is the level of review?
- 2) Will there be unmitigated adverse environmental impacts?
- 3) Are the adverse impacts disproportionately affecting the EJ population?

Community Analysis

- **Compare the neighborhood where the effects will be found to the demographics of the larger jurisdiction**
- **Consider the impacts themselves to see just how far they extend**
- **An EJ community may be limited to the project site, particularly for determining disproportionality.**

Tools:

- **EJ Screen (EPA)**
- **HUD CPD Maps**
- **HUD User Data Sets**
- **NEPAssist**

Community Participation

- **If the EJ Community is negatively and disproportionately affected, engage the community in *meaningful participation*.**
- **May use existing forums for community outreach such as planning and zoning hearings, Section 106 consultations, resident or neighborhood meetings.**
- **Authoritative Data Sources vs. Community Interviews**

Mitigation Plan (Required)

- **Mitigation measures should be worked out with the EJ community.**
- **Mitigation could include a variety of activities depending on the adverse impact as well as the community's values and needs.**
- **Direct mitigation measures are always preferred and encouraged as compared to indirect or compensatory mitigation.**
- **Final approval is made by the Responsible Entity.**

**Does a finding of
Environmental Injustice mean
no project?**

Not Necessarily!

- **The proposed project or action may be necessary to meet a goal that is legitimate, important, and addresses a community need, such as economic development, or improved housing and neighborhood conditions.**
- If it is determined that there is no better way to accomplish the project and the remaining impact can not be avoided, **work with the impacted EJ community on an acceptable mitigation plan.**

Documentation for the ERR

Demographics Analysis

- Documents the presences or absence of low income or minority populations in the project area

Maps with project site clearly delineated with respect to source of pollution

- Documents no impact, or
- Describes potential hazards sources

EJ Analysis

EJ Mitigation Plan

Public Participation Report

Written approvals of EJ Mitigation Plan

Mitigation measures must be included in the Project Description of HUD Form 7015.15

HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/programs/environmental-review/environmental-justice>
- Environmental Justice
Worksheet:
<https://www.hudexchange.info/resources/documents/Environmental-Justice-Worksheet.docx>

Questions?



Environmental Assessment Factors

Environmental Assessment Context

Statement of Purpose and Need:

- **The Why**

- Explains what goal the project responds to
- Important context for decision-making

- **Project Description:**

- **The Who, What, When, Where, and How**
 - Frames the analysis

Existing Conditions and Trends:

- Conditions on and around the proposed site that will be relevant for environmental analysis

Goal/Outcome of EA:

- Document that no EIS is needed because project impacts are not:
 - Significant or Adverse
 - If significant or adverse impacts are found, mitigate or consider alternatives
- Mitigation = Actions to reduce the effect of impacts
- Alternatives: Other ways to achieve the same goal
 - Different site,
 - Different design,
 - Added features

How Do You Assess Success?

- Impact of project on the surrounding environment
 - Impact of the surrounding environment on the residents/occupants of project



Why Environmental Assessment Factors?

Good Predictors of
Project Success

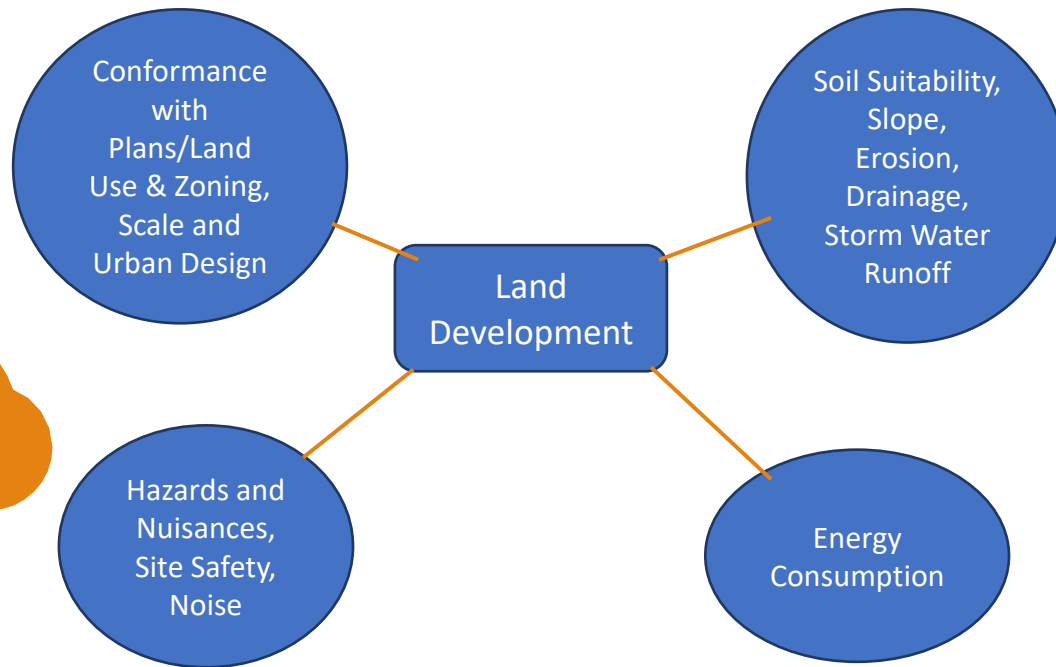
- Show How Residents will Interact in the Community
- Show How the Community Services and Infrastructure will Support the Residents

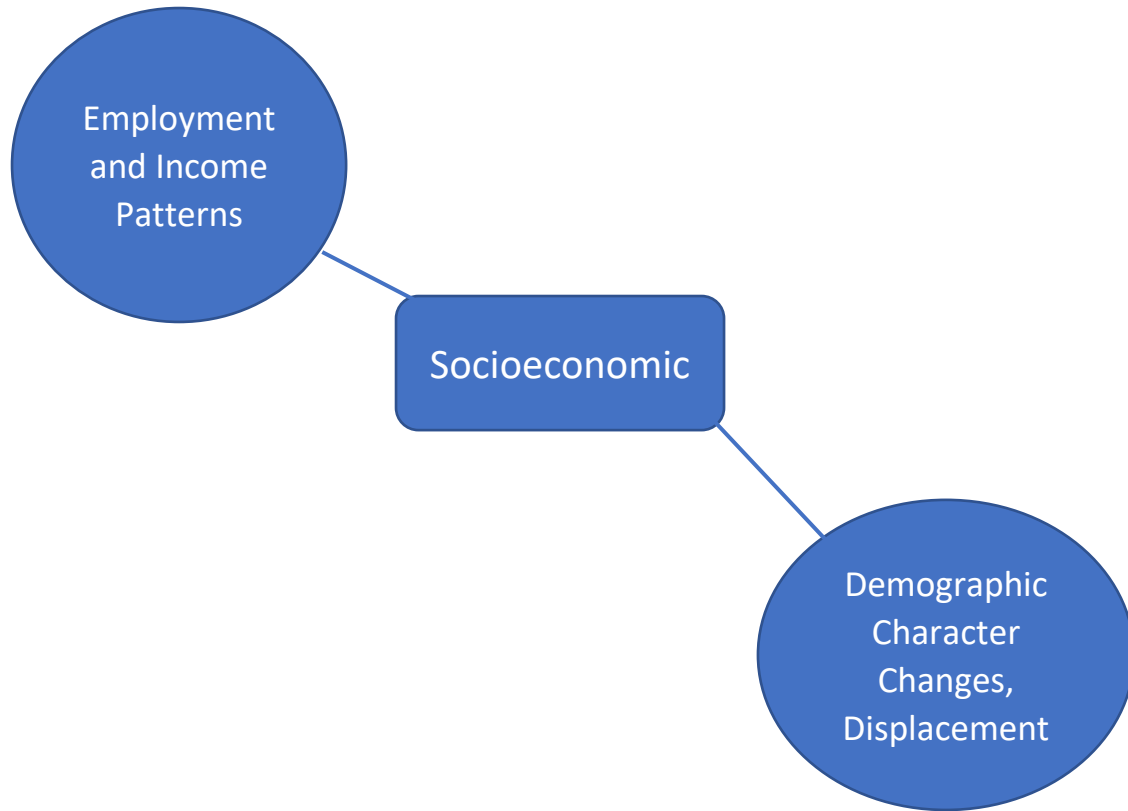


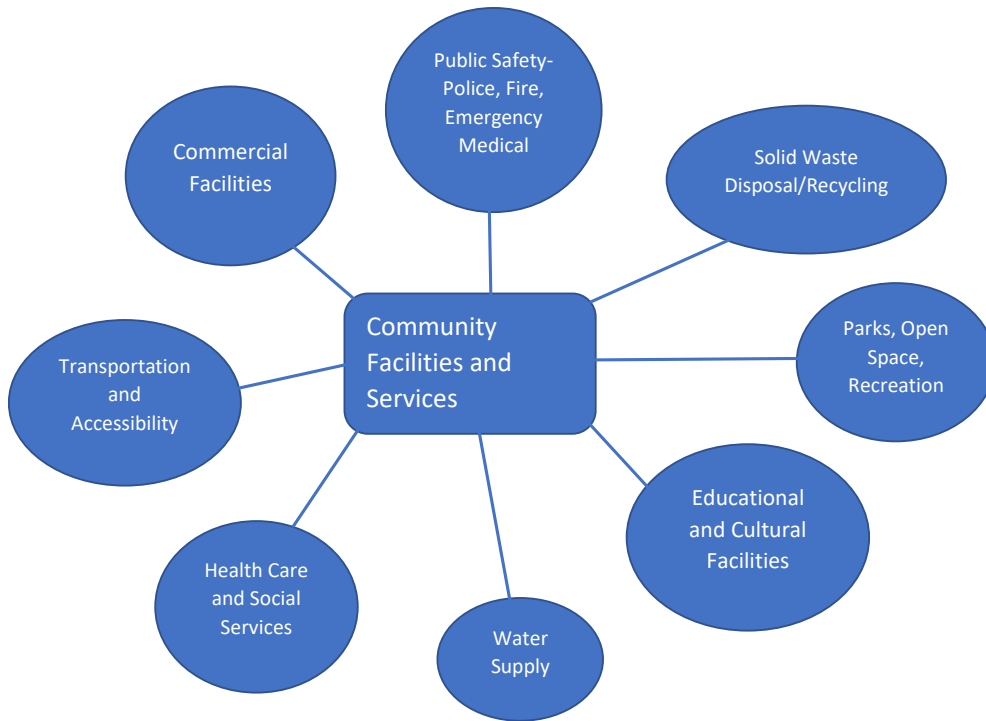
Environmental Assessment Factors

- Covers four major impact areas and 36 specific impact categories within those four areas.
- 36 impact categories jog the memory of the reviewer, raise questions and assure that all potential impacts are considered.
- Note that some of impact categories are also included on the Statutory Checklist.
- A project may be in compliance with the provisions of a specialized law, regulation or Executive Order and still have an impact.
- If a subject/category has been covered adequately on the Statutory Checklist, note in the space provided for documentation, and no further analysis is required for that environmental factor

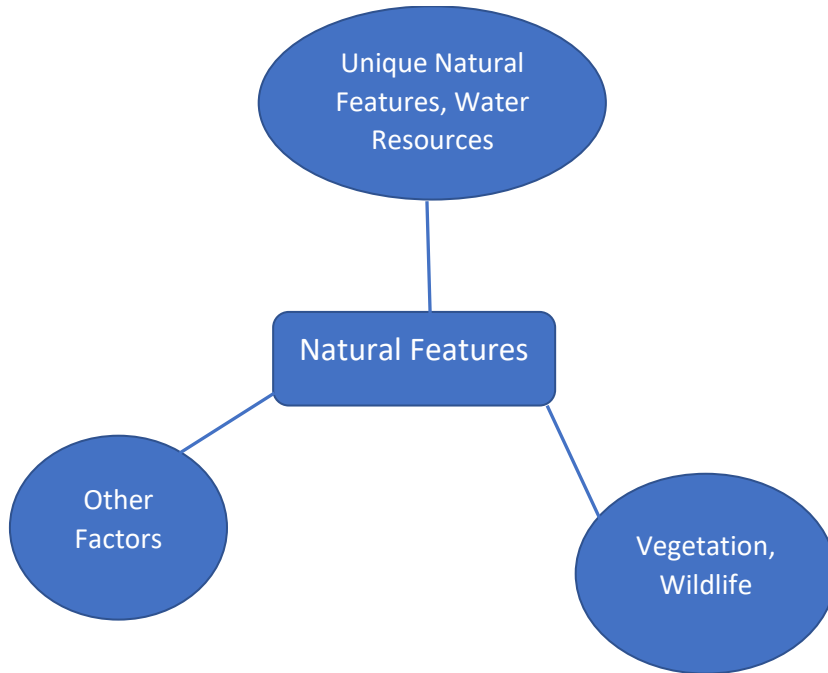
Environmental Assessment Factors







Environmental Assessment Factors



Environmental Assessment Factors

Impact Types

- Minor beneficial impact
- No impact anticipated
- Minor Adverse Impact – May require mitigation
- Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Land Development

Compatible Land Use

- Activities of land uses may cause problems for another.
 - The noise, light glare, traffic, or other characteristics of a business may be incompatible with neighboring housing.

Zoning Ordinance

- Principal legal tool to implement a comprehensive plan and for the definition of the community's land use policies.
- HUD-funded projects must consider:
 - How the project will be adversely impacted by ill-suited land uses or alternatively,
 - How the project itself could impose or create adverse impacts.

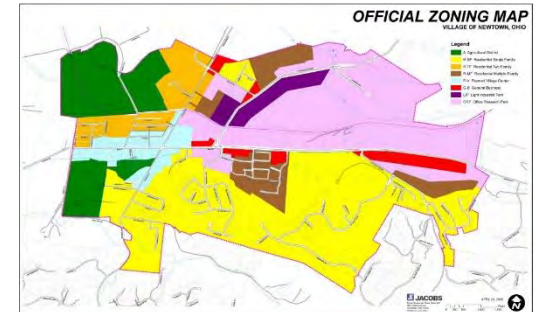
Land Development

Experts to Contact

- Local and Regional Planning Agency
- Zoning Review Officer or Administrator
- Planning Commission/Director
- State Planning Office

Questions to Consider

- What is the current zoning classification of the project location?
- What is the existing land use at the project location?
- How does the project relate to the existing land uses of the adjacent and surrounding properties?



Land Development

Soil suitability

The physical capacity of a soil to support a particular land use.



High water table near house

Questions to Consider

- Is there evidence of ground subsidence, seismic activity, a high water table, or other unusual conditions on the site?
- Is there any visible evidence of soil problems (foundation cracking or settling, basement flooding, etc.) in the vicinity of the project site?
- Were structural borings or a dynamic soil analysis/geotechnical study needed and conducted? If so, what were the findings of the report?
- Are there visual indications of filled ground?
- Will the project site significantly affect or be affected by unsuitable soil conditions?

Land Development

Slope

More than the change in elevation over a certain distance. Slope involves changes in the physical shape of the land.

Grading will alter the surface water flow. Improper grading may cause flooding for the site and the surrounding property owners.



Slope towards foundation

Questions to Consider

- Is the site on a slope? If so, is it: slight, moderate, severe, or very severe?
- Is there a history of slope failure (i.e. landslides) in the project area?
- Is there visual indication of previous slides or slumps in the project area, such as cracked walls, tilted trees, or fences?
- Will the project site significantly affect or be affected by slope conditions?
 - If so, does its design plan include measures to overcome potential slope stability problems?



Land Development

Erosion

Erosion, transport, and sedimentation are the processes by which the land surface is worn away, moved, and deposited in another location. Erosion can:

- Cause structural damage in buildings by undermining foundations. It can pollute surface waters with sediment and increase the possibility of flooding by filling river or stream channels and urban storm drains.

Questions to Consider

- Is there evidence of erosion or sedimentation?
- If site clearance is required, does it include removal or vegetation, what are its effects, and how will erosion be managed and controlled?
- Is an erosion control plan included as part of construction and the construction contract?
- *Will the project site significantly affect or be affected by erosion or sedimentation conditions? If so, does the design plan include measures to overcome potential erosion problems?*



Land Development



Drainage/Stormwater Runoff

Stormwater management can be an essential determinant of whether a project can be constructed. In assessing impacts to stormwater management facilities, two factors must be considered:

1. The proximity of the system to the site
2. The capacity of the system to accommodate the project.

Land Development

Drainage/Stormwater Runoff

Questions to Consider

- Is there indication of cross-lot runoff, swales, or drainage flows on the property?
- Are there visual indications of filled ground on site?
- Will existing or planned stormwater management systems adequately service the proposed development? Will the proposed project be adversely affected by proximity to these facilities?
- If the public storm sewer is not available, how will storm water drainage be handled?
- Is state/regional/local permitting required to control stormwater run-off, e.g., a National Pollution Discharge Elimination System (NPDES) permit? If so, what conditions will be required by the permit?



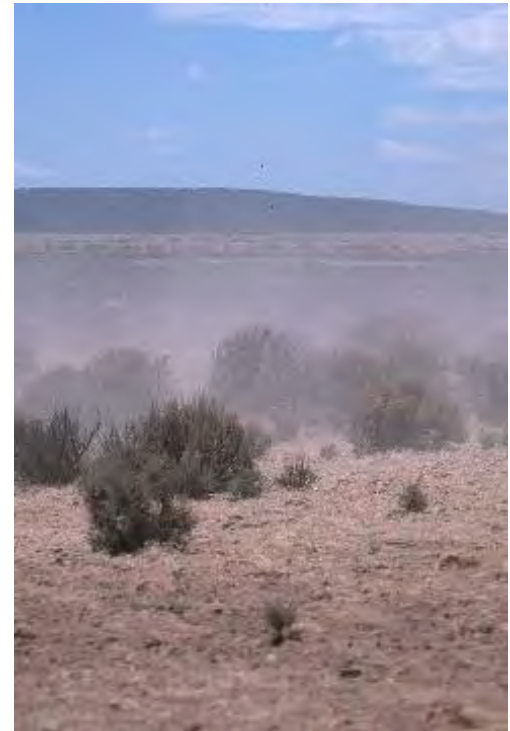
Land Development

Hazards and Nuisances

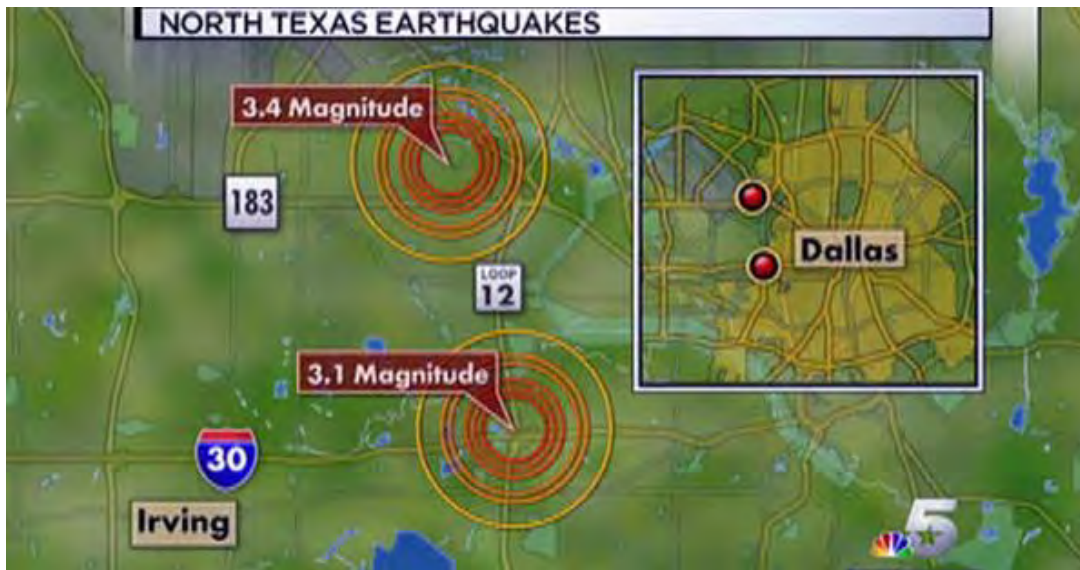
Ensure that the project is located and designed to eliminate or reduce any potential risk to the public or project users from both natural and man-made risks to people or property damage.

Experts to Contact if Potential Issue Occurs:

- Seismologist
- District officers of the Army Corps of Engineers
- District office of FEMA
- Local fire departments



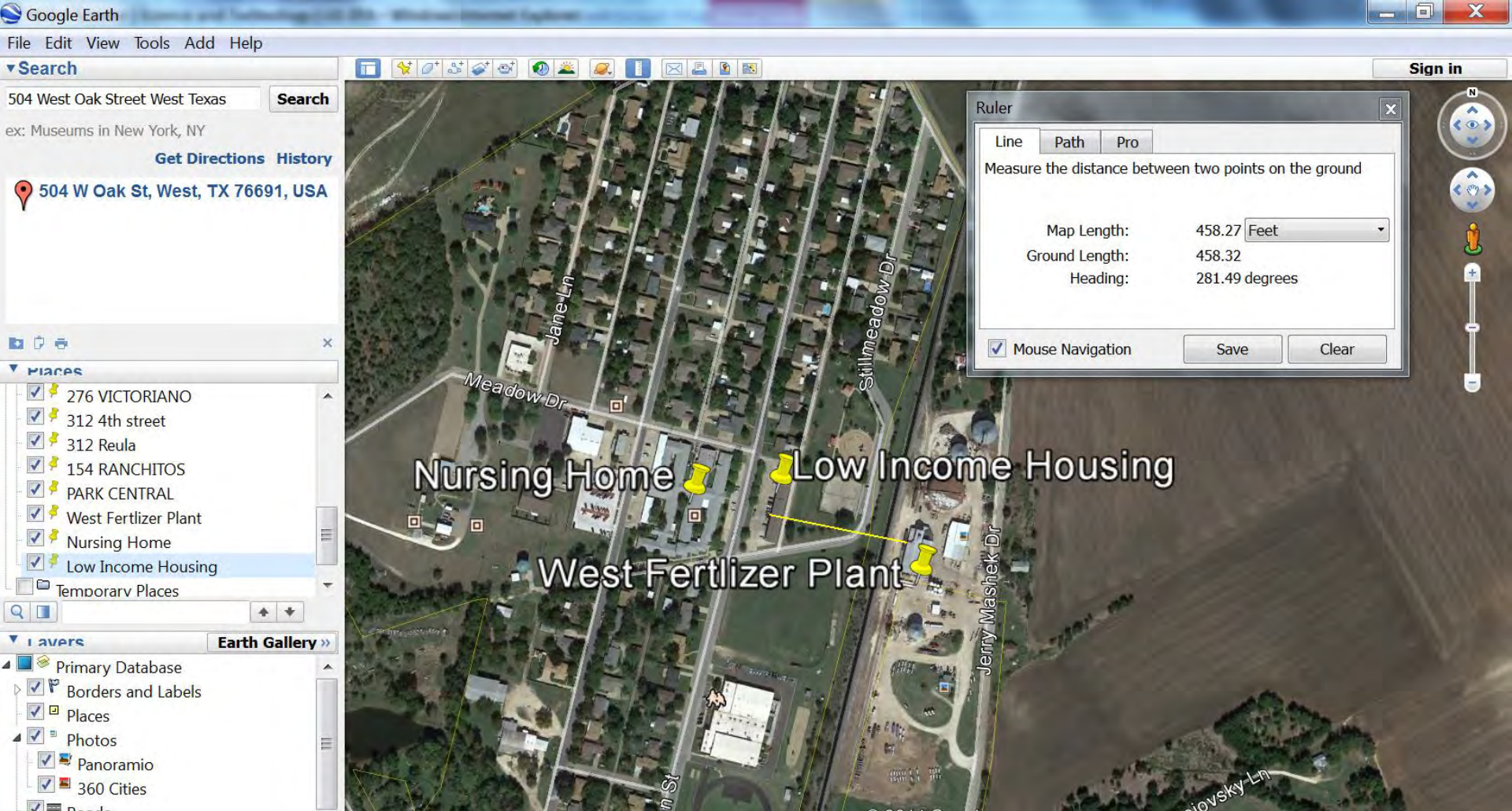
Land Development



Hazards and Nuisances

Questions to Consider

- Will the project be affected by any of the following hazards?
Natural hazards, including, but not limited to:
 - Earthquakes - faults, fracture
 - Volcanoes
 - Landslides
 - Fire-prone areas
 - Droughts
 - Floods
 - Storage of hazardous chemicals
 - Wind / sand storm concerns
 - Hazardous terrain
 - Poisonous plants, insects, animals



Storage of hazardous chemicals -Example: West Fertilizer Plant



7. A fire burns in a destroyed apartment complex, near a fertilizer plant that exploded in West, Texas, on April 18, 2013. #

West, Texas
Example:
Chemical
Safety Board
Report

“The CSB found at all levels of government a **failure to adopt codes to keep populated areas away from hazardous facilities**, not just in West, Texas. We found 1,351 facilities across the country that store ammonium nitrate . . . there can be little doubt that West is not alone and that **other communities should act to determine what hazards might exist in proximity to communities.**”

- [Chemical Safety Board Statement April 2014 on West, Texas disaster](#)

Land Development

Energy Consumption

- It has become increasingly important to both design and locate new facilities in to minimize energy usage.
- Maximizing energy efficiency can be incorporated in nearly all phases of project planning: location selection, site planning, and building design.



Land Development

Energy Consumption

Questions to Consider

- Is the project being designed and constructed to meet the current version of the Energy Star performance standard?
- Have the architectural plans and building orientation taken full advantage of potential energy saving measures related to climate, sun and wind?
- Are Energy Star appliances, lighting heating, cooling and hot water systems to be installed?
- Does the project include programmable thermostats, occupancy sensors in common areas, water filters, insulated hot water pipes, and/or point-of-use/tankless hot water heaters?
- Is the location of the project in close proximity to transit, shopping, services and employment locations?
- Are state and federal rebates, tax incentives for energy efficiency strategies, and renewable energy components being considered?



Land Development

Energy Consumption

Questions to Consider

- What is the estimated energy consumption of the proposal, and are the energy resources of the utility provider sufficient to support the proposal?
- Are renewable energy strategies being implemented in this project? If this is a rural project, was onsite energy generation considered (wind, fuel cell, or solar) in lieu of or in addition to a grid connection?
- What are the projected greenhouse gas (GHG) emissions of the project upon full occupancy? Are they significant?
- Does the estimated energy consumption of the proposal require a significant increase in energy production for the energy provider?



Employment and Income Patterns

Employment-related impacts of a project can be grouped into three broad categories: temporary jobs created in construction, permanent jobs created, and the job requirements of new residents.

Questions to Consider

- Will the project significantly increase or decrease temporary and/or permanent employment opportunities?
- What is kind of new jobs created by the project? What is the distribution across the skills and income scale? How do these relate to the skills and income profile of project area residents?
- Will the new jobs likely go to area residents, low-income, unemployed, and minority group members?
- If the jobs don't go to area residents, where are the new employees likely to come from (i.e., inner city, suburbs)?

Socioeconomic

Displacement

Displacement refers to the dislocation of people, businesses, institutions, or community facilities as a result of a project.

Questions to Consider

- Will the project directly displace individuals or families? How many persons? Is the displacement covered by the Uniform Relocation Act and are funds available for payment?
- Will the project destroy or relocate existing jobs, community facilities, or any business establishments? Is the displacement covered by the Uniform Relocation Act, and are funds available for payments?
- Are replacement facilities or housing units available within the community or in a nearby neighborhood? What will be the effect of the relocation on these neighborhoods?
- Will the project result in probable indirect displacement? If so, have measures been planned to alleviate the hardship on those affected whose displacement is not covered under the Act?



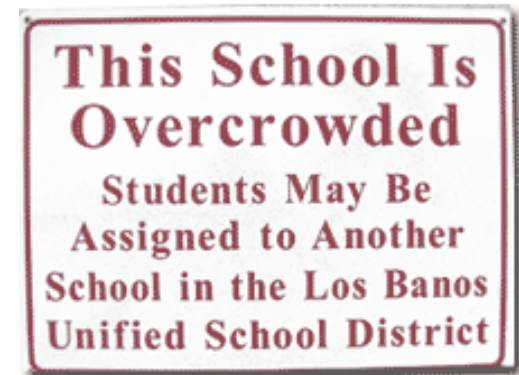
Community Facilities and Services

Educational and Cultural Facilities

There are two fundamental considerations regarding a HUD activity's relationship to and/or impact schools: adequate capacity for children in the school(s) and safe access.

Questions to Consider

- What is the projected increase in student population to be created by the proposed development?
- Will the additional school age children exceed the capacity of the existing or planned school facilities? If so, what measures will be taken to resolve potential problems/conflicts?
- Does the potentially affected school(s) have adequate and safe access facilities (i.e. walking paths, bus routes, crosswalks and guards) given any calculations done for projected population increase? Are these adequate both in terms of safety and access?
- Will additional or alternative facilities have to be provided to ensure safety and suitable access?



Community Facilities and Services

Commercial Facilities

There are two key considerations in assessing commercial facilities.

- An evaluation of the adequacy of existing commercial facilities to service the development.
- The impact which a proposed development will likely have on surrounding commercial establishments.



Community Facilities and Services

Commercial Facilities

Questions to Consider

- Do local retail services meet the needs of project occupants/users? Is the range of services adequate?
- Is there adequate and convenient access to retail services? Walkable? Public Transportation?
- Will existing retail and commercial services be adversely impacted or displaced by the proposed project?



Community Facilities and Services

Health Care and Social Services

Social services can be defined as those services including but not limited to programs for drug addiction, alcoholism, and services for senior citizens and the handicapped (physical and mental disorders).

Social services by definition must cater to, and be easily accessible to, those who need them.

Questions to Consider

- Are the social services located onsite or within a convenient distance to residents of the proposed project? Is adequate public transportation available from the project to these services?
- Is there sufficient capacity for or negatively impacted by the proposed project?
- Will the provision of additional social services at this site create a concentration of the disadvantaged in violation of HUD site and neighborhood standards?



Community Facilities and Services

Solid Waste Disposal and Recycling

Solid waste disposal is regarded as an essential service in urban areas. Its availability for supporting a newly proposed development can be an essential determinant of whether a project can be constructed.

For proposed demolition projects, the ability of the solid waste centers to contain the demolition material should be considered. The cost of demolition and disposal may justify rehabilitating the structure.

For all projects, proper disposal of hazardous material must be considered. This may include materials, such as cement, that may have absorbed hazardous materials.



Community Facilities and Services

Solid Waste Disposal and Recycling

Questions to Consider

- What types and amounts of waste are to be generated as construction debris? By the completed project?
- What solid waste disposal system will handle the construction debris? By the completed project?
- What organization will handle garbage collection, composting, and recycling? Does it have the capacity to handle the amount of material? Is service affordable?
- Will the waste from the proposal exceed the capacity of the waste system or landfill?



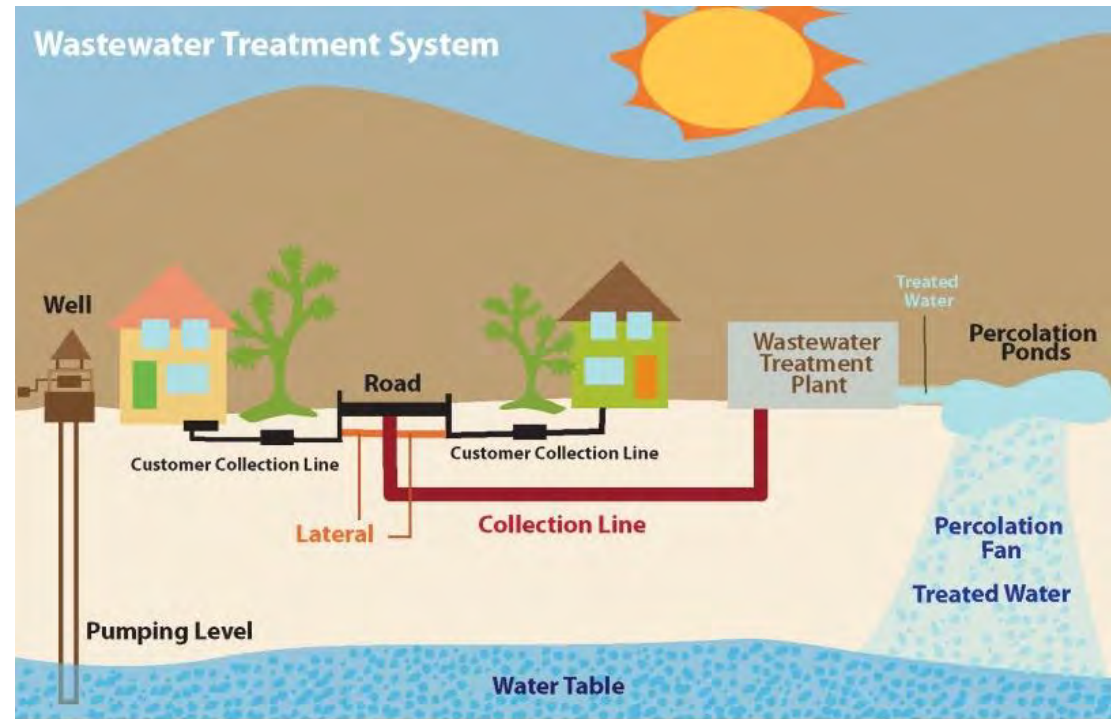
Community Facilities and Services

Wastewater and Sanitary Sewers

Wastewater treatment and disposal is an essential service for all projects. An adequate service can determine whether or not a project is constructed.

Questions to Consider

- What kind of wastewater/sewer system is proposed?
- Does the system have sufficient capacity?
- If systems are non-municipal, has an acceptable system been approved or permitted by appropriate authorities?
- Are the soil conditions suitable for on-site septic systems?
- Is there a large variance in the water table elevation? (A high seasonal water table can prevent proper functioning of septic tanks drain fields).



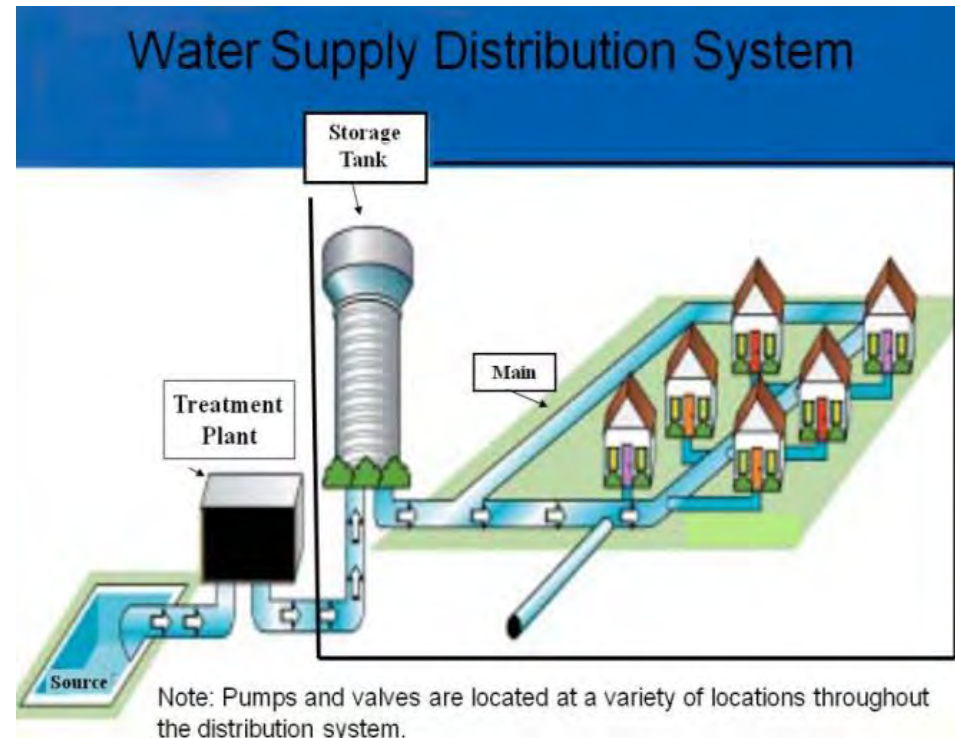
Community Facilities and Services

Water Supply

Adequate water supply concerns the delivery of sufficient quantities of potable (drinkable) water under adequate pressure at affordable cost.

Questions to Consider

- Who is the provider? Municipal or private water utility?
- Will the water supply be adequate to serve the proposed project? Safe from a chemical and bacteriological standpoint? Sufficient quantity and pressure
- If the water supply is non-municipal, has an acceptable system been approved by appropriate authorities?
- Will the project water requirements pose a hardship to the community?



Community Facilities and Services

Emergency Services

The adequacy fire, police, and ambulance services are considered for the project site.

Questions to Consider

- What police and fire fighting services protect the proposed project? What are their approximate response times?
- Is the fire fighting service equipped to service the project (i.e. ladders can reach upper floors, water pressure, etc.)?
- What emergency health care providers are located within reasonable proximity to the proposed project? What is the approximate ambulance response time?
- Will the project create a significant burden on police, fire or health care providers in terms of manpower and/or equipment?



Community Facilities and Services

Parks and Recreation

Recreation and open space resources include active recreation such as ball fields, passive recreation such as nature trails, and gardens.

Questions to Consider

- Are open space and recreational and cultural facilities walkable to the project area, or is adequate public transportation available?
- Are there special recreational/cultural needs of certain population groups to be satisfied, such as small children, the elderly, or the handicapped?
- If the development is family housing, has space for informal play for children been included on-site?
- Will the proposed project overload existing open space, recreational or cultural facilities?



Community Facilities and Services

Transportation and Accessibility

Assessing transportation impacts involves analyzing four sub-elements of transportation:

- Access—Able to reach a destination within reasonable limits of time, cost and convenience
- Balance—Choice of travel modes (automobile, bicycle, walking, public transit or combination thereof)
- Safety—System design encourages separation of pedestrians and vehicles and minimizes conflicts among modes (signalized intersections, turning lanes, bicycle lanes and signage, and railroad crossings warnings and barriers)
- Level of Service—Measure of the freedom of movement thru conflict points





Community Facilities and Services

Transportation and Accessibility

- Overall, will the existing and reasonably foreseeable transportation facilities and services be adequate to meet the needs of the project?
- Will the project itself cause a significant adverse impact on local or regional transportation system (e.g., by reducing the level of service of roadways)?
- Are there any barriers to emergency vehicle access?
- Is the project accessible to the elderly and disabled (e.g., wheelchair ramps, traffic light timing, handicapped parking, shuttle services)?
- Are there special transportation issues (e.g., bridge clearances for trucks) which have not been adequately addressed?

Natural Features

Unique Natural Features

Examples of unique natural features include:

- Sand dunes
- Waterfalls and waterways
- Unique rock outcroppings
- Caves with limestone or gypsum deposits
- Vistas/viewsheds
- Petrified forests
- Unique stands of trees, such as redwoods
- Unique colonies of animals, such as a prairie dog town.



Natural Features

Unique Natural Features

Questions to consider:

- Will the project location, construction, or its users adversely impact unique or locally important natural features on or near the site?
- Will the project destroy or isolate from public or scientific access the unique natural feature?





❖ Proposal “as is”

❖ Proposal, as modified

❖ “No Action” alternative

Cumulative impact...

Must Identify
and List
Conditions
and
Mitigation
Measures
Necessary for
Approval

- **List all mitigation measures** adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and avoid non-compliance.
- **Incorporate measures/conditions** into project contracts, development agreements, and other relevant documents.
- **Identify staff responsible** for implementing and monitoring mitigation measures clearly in the mitigation plan.

EA Outcome

- ❑ **Finding of No Significant Impact (FONSI)**
[24 CFR 58.40(g)(1); 40 CFR 1508.27]
 - The project will not result in a significant impact on the quality of the human environment.

- ❑ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
 - The project may significantly affect the quality of the human environment.
 - An Environmental Impact Statement is required to proceed.



Review > Decision > Action

40 CFR §1500.1

“The NEPA process ... is intended to help public officials make decisions ... and take actions that protect, restore, and enhance the environment.”

“Ultimately,...it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action.”

*40 CFR 1500.1



ERR Documentation

- All supporting documentation for each resources assessed.
- Additional Studies Performed (Radon, Lead, Phase 1 ESA, etc.)
- Field Inspection (Date and Completed by)
- List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]
- List of Permits Obtained/Required
- Public Outreach [24 CFR 50.23 & 58.43]
- Cumulative Impact Analysis [24 CFR 58.32]
- Alternatives Analysis [24 CFR 58.40(e); 40 CFR 1508.9]
- Summary of Findings and Conclusions

Signatures and Approvals

- Preparer signs and dates, once environmental review is complete.
- Certifying Officer signs and dates (Can be signed along with HUD-7015.15)
- The original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

HUD Resources

- HUD Guidance:
<https://www.hudexchange.info/environmental-review/environmental-assessments>
- Environmental Assessment Factors Guidance:
<https://www.hudexchange.info/resource/3306/environmental-assessment-factors-guidance/>

Questions?

Public Notice and Request for Release of Funds Process

Reasons for Public Participation

- It is a public right under NEPA
- Public input can improve project quality
- Can resolve differences that could stop or delay a project



Part 58
Includes 3
Types of
Public
Notices
(not including
floodplain
notices)

**“Notice of Intent to Request the Release of Funds”
(NOI/RROF)**

- Required for projects that are CEST that do not convert to exempt
- Required for projects that require an EA or EIS
- Template for NOI/RROF notice:
<https://www.hudexchange.info/resource/2754/sample-notice-of-intent-to-request-release-of-funds/>
- 7-day public comment period if publishing
- 10-day public comment period if posting

Notice of “Finding of No Significant Impact” (FONSI)

- Required for Environmental Assessments
- 15-day public comment period if publishing
- 18-day comment period if posting

Combined NOI/RROF and FONSI notices

- Used for EA’s, but not for projects that are CEST.
- Template for combined notice:
<https://www.hudexchange.info/resource/2755/sample-fonsi-and-rrof/>
- 15-day public comment period if publishing
- 18-day comment period if posting

Notice of Intent to Request Release of Funds [§ 58.70]

- Notice of Intent to Request for Release of Funds (NOI/RROF) must be disseminated and/or published in the manner described in §58.45.
- The RE must not sign the certification of the Request for Release of Funds (RROF) before the close of required public comment periods.
- NOI/RROF must follow HUD recommended format or equivalent

FONSI Notices [§ 58.43(b)]

FONSI notices are intended to make the public aware of the findings and notify them of the right to review and comment on the ERR and EA

Must follow HUD recommended FONSI notice format or equivalent

Public comments must be considered and responded to before the RE submits the RROF

FONSI
Notices
Must be
Sent to
Interested
Groups
[§58.43(a)]

- Local news media
- Appropriate tribal, local, state and federal agencies (i.e. if there are wetland or wildlife impacts, send to USFWS)
- Environmental groups with known interest in area
- Regulatory Oversight Agencies with Known Interest in Project Area
- Regional IV EPA

Failure to Notify is a Basis for Objection

Combined NOI/RROF and FONSI Notices

FONSI notices can be combined with NOI/RROF, but notice must:

- Indicate notice meets two separate procedural requirements
- Advise public to specify which notice their comments address

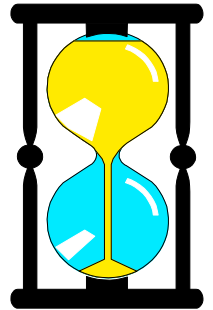
Publication versus Posting

Publish FONSI in a newspaper with general circulation in the affected community

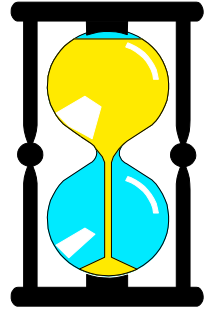
Postings must be prominently displayed in public buildings within the project area

Timing & Counting Days

- Counted in calendar days
- First day of the time period begins at 12:01 AM local time on the day following publication or posting. Time Periods (§ 58.21)
- RE starts counting the day **AFTER** publication
- If last day of comment period falls on Sat, Sun, or Holiday, accept comments through the following business day
- RE may extend comment period for any reason
- **RE Signs** and submits RROF day **AFTER** last day of comment period



Example: RE's 15-day Comment Period for Environmental Assessment



S	M	T	W	T	F	S
			1 - Pub	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17 - RROF	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Time Delays for Exceptional Circumstances [§58.46]

- FONSI must be available for comment for 30 days when:
 - Considerable public interest in the project
 - Project is controversial
 - Project is similar to other projects normally requiring an EIS
 - Project is unique and without precedent

Shortened Timeframes for Emergencies [§58.33]

- Taking an action that has a significant effect on the environment during an emergency, disaster, or imminent threat – the RE must follow 40 CFR 1506.11 procedures
- For a declared emergency when there is a need for action to protect public safety
 - Notice of Intent to Request Release of Funds (NOI/RROF) and Finding of No Significant Impact (FONSI) Notice can be published simultaneously with submission of the RROF to HUD/State.
 - Notices must state that funds are needed for a declared emergency
 - Notice must state that comments can be sent to the RE and HUD

Notice Documentation

Publishing: Copy of publication and publisher's affidavit or tear sheet from newspaper

Posting: Copy of posted notice and signed statement of distribution

Mailing: Copy of letter and distribution list of Interested Parties

Key Pointers for Public Notices

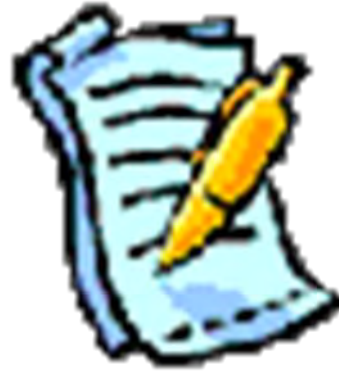
- Use HUD-recommended template for public notice. It contains the minimum content - you may add language, but do not subtract
- Triple check the dates before publishing/posting – including submission date to HUD/State
- Describe project fully and concisely including any significant environmental issues and their mitigation
- Use common language for project location – e.g., 123 Elm St., not “Parcel #0100-45095”
- Notice must provide RE’s address for receipt of comment (e.g., not housing authority or other grant Recipient)



What is Environmental Clearance?

- After the RE has completed its environmental review, it certifies on the RROF (Form 7015.15) that it has complied with all of the requirements of NEPA and Part 58.
- RE submits this certification to HUD.
- HUD issues an Authorization to Use Grant Funds (AUGF) Form 7015.16—This is “Environmental Clearance”
- The RE and the Recipient must refrain undertaking any action on the project or committing HUD or non-HUD funds for the project prior to receiving Environmental Clearance from HUD.

RROF Form 7015.15




- Use HUD Form 7015.15:
<https://www.hudexchange.info/resource/2338/hud-form-701515-request-release-funds-certification/> This is a Federal Form and it should not be altered.
- If mailing, must be printed on a single page front and back.

When Completing the RROF Make Sure To Include:

- Name of Recipient if different from the RE in Box 7.
- Location of the Project in Box 10. Do not put the RE's or the Recipient's Address
- Include in Box 11 - Program Activity/Project Description:
 - Complete Project Description
 - Schedule (e.g. will be developed over a 3-year period, from 2019 through 2021)
 - Total Estimated Project Cost
 - Include Estimated Funding Contribution from all Sources
 - Include required conditions and mitigation measures, particularly for mitigated FONSI

Who Signs the RROF?

Certifying Officer
[§58.71(a)]



***Failure of the Certifying Officer to
Certify the 7015.15 is a Basis for
Objection***

RROF's Certifying Officer's Environmental Certification

- 1. Fully carried out the review and decision-making and action pertaining to the project**
- 2. Has complied and will continue to comply with:**
 - NEPA
 - Environmental procedures
 - Permit requirements
 - Statutory obligations of 58.5, 58.6
 - Applicable State and local laws

RROF's Certifying Officer's Environmental Certification (Cont'd)

3. Based on consideration of adverse effects, has made a finding as to whether an EIS is required
4. Has issued a public notice as Section 58.70 requires:
 - Notice (s) was disseminated/published in accordance with Sections 58.43 and 58.55
 - Attached evidence of publishing, posting, and mailing

RROF Certifying Officer's Environmental Certification (Cont'd)

5. Has complied with dates for all statutory and regulatory time periods for:
 - Review
 - Comment
 - Other ActionsAre in compliance with Part 58 Procedures and Requirements
6. Agrees that the RE will advise the Recipient of special environmental conditions that must be adhered to in carrying out the project in accordance with 58.71(b)

RROF
Certifying
Officer's
Environmental
Certification
(Cont'd)

8. S/he is authorized and consents to serve as the Federal Official under NEPA on behalf of HUD
9. Submits to the jurisdiction of the Federal Courts for enforcement of all NEPA responsibilities

Notice the Fine Print Below the RROF Signatures

***Warning: HUD will
prosecute false claims
and statements.
Convictions may result
in criminal and/or civil
penalties.***



Trouble-Shooting RROF/Notices

If problems, HUD may ask for republication of notice and/or resubmission of RROF

Reasons:

- Notice period too short
- RROF signed before end of comment period
- RROF incorrectly completed – e.g., no project location; project description vague, or “see attached” used
- Long lapse between Notice and submission of RROF to HUD

HUD Objection Period [§58.72]

- 15-day objection period begins with HUD's receipt of the RROF
- Objections must be received within 15 days from the time HUD receive the RROF
- HUD can deny the RROF if has knowledge that:
 - The RE or other participants in the development process have not complied with §58.75, Permissible Basis for Objections
 - The RROF and certification are inaccurate



Objecting party must submit objection in writing to HUD

Objection Procedures
[§58.76]

Written objection must include:

Contact information of objecting party and signature of authorized official/person	Date of signature	Describe basis for objection including facts or legal authority supporting objection	State when a copy of objection was mailed to RE's Certifying Officer
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Permissible Basis for Objections [§58.75]

1. Certification was not executed by RE's Certifying Officer
2. RE failed to make a FONSI or FOSI determination
3. RE failed to make written determination required in §58.35 or §58.47 (re-evaluation)
4. RE omitted one or more steps in preparation, publication, and completion of EA
5. RE omitted one or more steps in preparation, publication, and completion of an EIS
6. RE and participants committed funds, incurred cost, or undertaken activities prior to environmental clearance
7. Another federal agency submits a written finding that the project is unsatisfactory from the standpoint of environmental quality.

HUD's Evaluation of the Objection

Once HUD receives an objection, the RE will be given an opportunity to respond to the objection

HUD will review the RE's Environmental Review Record

Based on the Review, HUD will make a decision about the RROF

All decisions by HUD regarding the RROF and the certification shall be final.

Authorization of the Use of Grant Funds [§58.77]

HUD can authorize the use of grant funds on form 7015.16 if it receives no objections

Approval of the RROF satisfies the Secretary of Housing and Urban Development's responsibilities under NEPA and related laws and authorities

It is HUD's policy to refer all complaints to the RE

The public and agencies seeking redress related to the approved environmental reviews must deal with the RE and not with HUD

Got the
release?
Now let us
dig...



Questions?