

**ENVIRONMENTAL ASSESSMENT
FOR THE
PROPOSED DEMOLITION OF
U.S. CUSTOMS AND BORDER PROTECTION-OWNED
HOUSING
AT FALCON VILLAGE, STARR COUNTY, TEXAS**

Prepared for:



**Department of Homeland Security
U.S. Customs and Border Protection
Washington, DC**

Prepared by:



**U.S. General Services Administration
Greater Southwest Region (Region 7)
Fort Worth, TX**

March 2014

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March 2014

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EXECUTIVE SUMMARY

BACKGROUND

The U.S. Department of Homeland Security (DHS) is charged with managing, securing, and controlling the Nation's borders. U.S. Customs and Border Protection (CBP) is one of the DHS's largest and most complex components, with a priority mission of keeping terrorists and their weapons out of the United States. CBP has a responsibility for securing the Nation's borders and facilitating lawful international trade and travel. CBP personnel at the Falcon Dam Land Port of Entry (LPOE or Port) are responsible for enforcing the import and export laws and regulations of the U.S. Federal Government and for conducting immigration policy and programs. Port personnel are the "face" of the United States at the border for most cargo and visitors entering the United States. Port personnel also perform agriculture inspections to protect the United States from potential carriers of animal and plant pests or diseases that could cause serious damage to America's crops, livestock, pets, and the environment. CBP currently owns and maintains several single-family housing units in support of their Falcon Dam LPOE operations. Eight (8) of these housing units are no longer needed, and therefore CBP proposes to demolish the houses. Four (4) of the units proposed for demolition have previously been considered to be contributing historic properties to the National Register of Historic Places (NRHP)-eligible Falcon Dam and Falcon Village Historic District.

STUDY LOCATION

The CBP-owned houses proposed for demolition are located in Falcon Village, Starr County, Texas. Falcon Village is at the southeastern tip of Falcon Lake, immediately adjacent to Falcon State Park. The Village is approximately ½ mile east/northeast of the Falcon Dam LPOE.

PURPOSE AND NEED

The purpose of the Proposed Action is to eliminate the need for CBP-ongoing maintenance and upkeep of housing units that are no longer needed in support of operations at the Falcon Dam LPOE.

PROPOSED ACTION AND ALTERNATIVES

The Proposed Action consists of demolishing the eight (8) CBP-owned housing units that are no longer needed in support of operations at the Falcon Dam LPOE. The overall goal of the project is to demolish and completely remove all housing units and related infrastructure (fences, aboveground and known or discovered underground storage tanks [ASTs and USTs], septic tanks, cisterns, walkways to the houses, steps or entries, fallen trees or vegetation, trees less than 2 inches in diameter, bushes, stumps, etc.) at each of the eight (8) properties. The concrete slabs, driveways, and footing of the units would be protected and left in place to minimize soil erosion. All trees larger than 2 inches in diameter would also be protected and left in place. After the demolition activities are completed, all properties would then be restored by filling any holes, trenches, and/or depressions and grading the disturbed areas to match the surrounding areas.

Alternative 1 consists of donating up to four (4) of the CBP-owned housing units that are identified as contributing resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District and demolishing the remaining four (4) CBP-owned units. Under the No Action Alternative, CBP would retain the eight (8) housing units and continue to provide upkeep and maintenance. Only the Proposed Action was deemed to fulfill the purpose and need for action. As a result, Alternative 1 was eliminated from detailed study in the EA. The reasoning for elimination is discussed briefly below. The No Action Alternative does not satisfy the purpose and need for action; however, pursuant to NEPA, the No Action Alternative has been carried forward as the baseline to which potential impacts of the Proposed Action can be measured. The No Action Alternative is also discussed briefly below.

- **Alternative 1 – Donate up to Four (4) of the CBP-Owned Housing Units Identified as Contributing Resources within the NRHP-Eligible Falcon Dam and Falcon Village Historic District and Demolish the Four (4) Remaining CBP-Owned Units.** Under this alternative, CBP would donate or transfer ownership of up to four (4) of the housing units identified as contributing resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District. This would include housing units C-102,

C-104, C-106 (all built in 1962), and L-101 (built in 1965). The remaining four (4) housing units, I-401, I-403, I-405, and I-407 would be demolished. Under this alternative, CBP would no longer be responsible for on-going maintenance and upkeep of the units. CBP officials contacted the IBWC (U.S. Section), the THC, and the Starr County Historical Commission regarding the desire to dispose of the four (units) identified as contributing resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District. Although the Starr County Historical Commission expressed an interest in the use of one (1) or more of the units, the existing infrastructure cannot currently support occupancy (IBWC 2013). As a result, this alternative was eliminated from any further consideration.

- No Action Alternative – Continued CBP-Ownership of the Eight Housing Units No Longer Needed in Support of Falcon Dam LPOE Operations.** Under the No Action alternative, CBP would retain ownership of the eight (8) housing units that are no longer needed to support operations at the Falcon Dam LPOE. Retaining ownership would require CBP to continue to provide on-going maintenance and upkeep on the units. Expenditures would continue for as long as CBP retains ownership of the housing units.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

A summary of the likely impacts associated with implementing both the No Action Alternative and the Proposed Action is provided in the following table (Table ES-1).

Table ES-1. Summary of Likely Impacts Associated with Implementing the Proposed Action and No Action Alternative.

Issue/Resource	No Action Alternative	Proposed Action
Air Quality	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant air quality impacts; however, minor, short-term negative impacts could be expected on a local level, throughout the duration of the demolition activities. Conditions would be expected to return to normal once activities were completed. The temporary impacts would primarily be the result of soil disturbances, razing of the homes, and exhaust emissions from heavy equipment and on-road worker and material/equipment delivery vehicles.
Noise	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant noise impacts; however, a minor, short-term increase in noise could be expected throughout the duration of the demolition activities. Conditions would be expected to return to normal once activities were completed. The temporary impacts would be the result of heavy equipment operation.
Hazardous Materials and Sites	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impact as a result of the use of hazardous materials or chemicals as part of demolition activities or from encountering hazardous materials and/or sites during demolition activities. There appear to be no known hazardous materials sites in the vicinity, and all hazardous materials either used, generated, or disposed of as part of the demolition activities would be done so in accordance with all pertinent Federal, state, and local regulations.
Asbestos and Lead-Based Paint	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impact as a result of existing ACM or LBP. Prior to demolition activities, all ACM and LBP would be removed and disposed of in accordance with NESHAP and other pertinent Federal, state, and/or local regulations.

Table ES-1 (continued). Summary of Likely Impacts Associated with Implementing the Proposed Action and No Action Alternative.

Issue/Resource	No Action Alternative	Proposed Action
Wildlife, Protected Species/Critical Habitats, and Migratory Birds	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impacts to wildlife or protected species. Initially, there were cave swallow and oriole nests at several of the houses proposed for demolition. All cave swallow and oriole nests have since been removed by personnel qualified to do such removal. On-site maintenance personnel would inspect the structures on a bi-weekly basis to ensure that no additional nests become established. All demolition personnel would be instructed on the significance and potential habitat/presence of the Texas horned lizard and Texas indigo snake in the area. Immediately before demolition commences at each property, a biologist (or other personnel trained/instructed, and/or qualified) would do a walking survey in an effort to make sure neither species is present. If either species is seen or uncovered either prior to, or during demolition, activities would cease and the species would be removed safely from the property. If any species are seen/encountered, additional care would be taken as demolition activities continue, and based on on-site conditions (presence or absence of either species), activities may be modified in a manner that best allows for the identification and safe removal of either species.
Socioeconomics	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant socioeconomic impacts. There would be no expected effect on the existing population, housing, or the existing racial or ethnic composition of the area, as there would be no new influx or outflow of people. Implementing the Proposed Action would result in no new long-term employment opportunities. As a result, existing income and employment in the area would not be expected to change. However, short-term employment gains could be realized as a result of the contracted demolition activities. A limited short-term economic gain to local/nearby communities could also be realized as a result of construction worker food and beverage sales, hotel accommodations, construction materials purchasing, equipment/vehicle rental, etc. Implementing the Proposed Action could result in a minor reduction in the overall number of available houses in the area (8 housing units). However, because the housing units (and lots) are owned by the Federal Government (and were occupied by Federal employees at one time), it is not clear as to whether or not the units were included in the 2010 USCB counts. Either way, a loss of eight units would not noticeably affect the housing characteristics of the area.
Environmental Justice and Protection of Children	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impacts to minority or low-income populations, or to children. Because no significant impacts to the natural and/or man-made or human environments would be anticipated, no significant impacts (disproportionate or otherwise) would therefore be anticipated to minority and low-income populations or children in the area.

Table ES-1 (continued). Summary of Likely Impacts Associated with Implementing the Proposed Action and No Action Alternative.

Issue/Resource	No Action Alternative	Proposed Action
Cultural and Historic Resources	Implementing the No Action Alternative would be expected to result in no significant impacts. However, there is a potential for a long-term negative impact to the NRHP-recommended District if the houses remain standing (due to potential deterioration, vandalism, etc.).	Implementing the Proposed Action would be expected to result in no significant impact to archaeological or historic architectural resources (including Native American resources). The 8 houses proposed for demolition are all located within the NRHP-eligible Historic District. Four (4) of the eight (8) houses proposed for demolition are considered to be contributing elements to the District. As such, implementing the Proposed Action would result in an adverse impact to the District. Because of this, CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The mitigation measures have been documented in a MOA with the Texas SHPO. The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. Upon completion of the mitigation measures, there would be no significant impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District.
Aesthetics and Visual Resources	Implementing the No Action Alternative would be expected to result in no significant impacts. However, there is a potential for a long-term negative impact to the NRHP-recommended District if the houses remain standing (due to potential deterioration, vandalism, etc.).	Implementing the Proposed Action would be expected to result in no significant impacts to the aesthetics or visual resources of the area. However, although not considered significant, implementing the Proposed Action would be expected to result in an adverse impact to the visual character of the NRHP-recommended Falcon Dam and Falcon Village Historic District. Implementing the Proposed Action would result in the demolition of four (4) houses that are considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District. The overall visual character of the District would be permanently altered. CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The mitigation measures have been documented in a MOA with the Texas SHPO. The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. Upon completion of the mitigation measures, there would be no significant impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District.

FINDINGS AND CONCLUSIONS

Based upon the analyses contained in the Environmental Assessment (EA), the Best Management Practices (BMPs), and mitigation to be implemented, the Proposed Action would not have a significant adverse effect on the environment. Therefore, no further analysis or documentation (i.e., Environmental Impact Statement) is warranted. CBP, in implementing this decision, would employ all practical means to minimize the potential for adverse impacts on the human and natural environment.

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1.0 INTRODUCTION

1.1 BACKGROUND

The U.S. Department of Homeland Security (DHS) is charged with managing, securing, and controlling the Nation's borders. U.S. Customs and Border Protection (CBP) is one of the DHS's largest and most complex components, with a priority mission of keeping terrorists and their weapons out of the United States. CBP has a responsibility for securing the Nation's borders and facilitating lawful international trade and travel. CBP personnel at the Falcon Dam Land Port of Entry (LPOE or Port) are responsible for enforcing the import and export laws and regulations of the U.S. Federal Government and for conducting immigration policy and programs. Port personnel are the "face" of the United States at the border for most cargo and visitors entering the United States. Port personnel also perform agriculture inspections to protect the United States from potential carriers of animal and plant pests or diseases that could cause serious damage to America's crops, livestock, pets, and the environment. CBP currently owns and maintains several single-family housing units in support of their Falcon Dam LPOE operations. Eight (8) of these housing units are no longer needed, and therefore CBP proposes to demolish the houses. Four (4) of the units proposed for demolition have previously been considered to be contributing historic properties to the National Register of Historic Places (NRHP)-eligible Falcon Dam and Falcon Village Historic District.

1.2 STUDY LOCATION

The CBP-owned houses proposed for demolition are located in Falcon Village, Starr County, Texas. Falcon Village is at the southeastern tip of Falcon Lake, immediately adjacent to Falcon State Park. The Village is approximately ½ mile east/northeast of the Falcon Dam LPOE (Figure 1-1).

1.3 PURPOSE AND NEED

The purpose and need for the Proposed Action is to eliminate the need for CBP-ongoing maintenance and upkeep of housing units that are no longer needed in support of operations at the Falcon Dam LPOE.

1.4 SCOPE OF THIS ENVIRONMENTAL ASSESSMENT

The scope of this environmental assessment (EA) includes the analysis of effects that would likely result from the demolition of the eight (8) CBP-owned and -maintained single-family housing units at Falcon Village. This EA documents and discloses the environmental impacts that could result should the CBP implement the Proposed Action or the No Action Alternative as described Section 2.0 of this EA. Data presented in this EA (and therefore the analysis) are based on previous studies/investigations conducted as part of the planning process as well as other secondary and tertiary sources developed as part of this NEPA process. These studies/investigations are detailed (as appropriate) throughout this document. Issues included for detailed analysis in the EA were determined through "scoping." As defined in the Council on Environmental Quality (CEQ) regulations (§1508.25), the scope consists of the range of actions, alternatives, and impacts to be considered in a NEPA document.

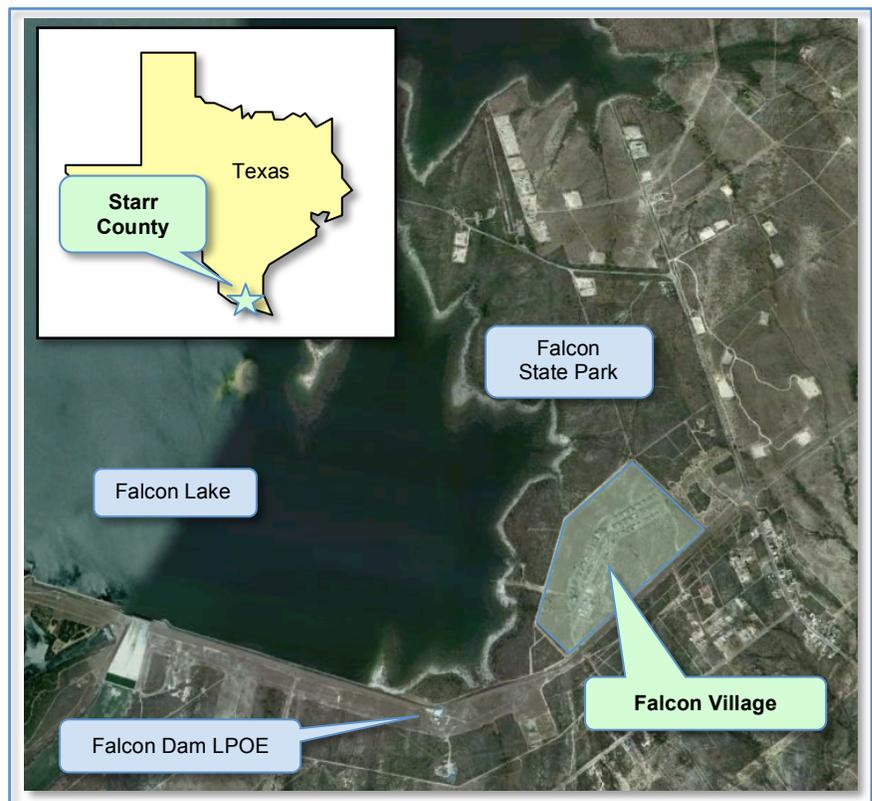


Figure 1-1. Location of Falcon Village.

1.5 APPLICABLE ENVIRONMENTAL GUIDANCE, STATUTES, AND REGULATIONS

This EA was prepared by CBP in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321-4347), CEQ regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), DHS Directive 023-01 (previously numbered 5100.1) and other pertinent environmental statutes, regulations and compliance requirements (Table 1-1). This EA will be the vehicle for compliance with all applicable environmental and cultural resources statues such as the Clean Air Act (CAA) of 1990, USC §7401 et seq., as amended, and the National Historic Preservation Act (NHPA) of 1966, 16 USC §470a et seq., as amended.

1.6 PUBLIC INVOLVEMENT

Consultation and coordination with Federal, State, and/or local agencies and entities began in December 2012 as it relates specifically to the four (4) CBP-owned housing units previously considered to be contributing historic properties to the eligible Falcon Dam and Falcon Village Historic District. Consultation and coordination has continued throughout the NEPA process with the following agencies:

- Advisory Council on Historic Preservation (ACHP)
- State Historic Preservation Officer (SHPO), Texas Historical Commission (THC)
- Starr County Historical Commission
- U.S. Section, International and Boundary Water Commission (IBWC)
- Texas Parks and Wildlife Department (TPWD)
- U.S. Fish and Wildlife Service (USFWS)

The Draft EA was made available for public review for 30 days after a Notice of Availability (NOA) was published in the Starr County Town Crier on November 25, 2013. A copy of the NOA is included in Appendix A. An affidavit of publication is also included in Appendix A. The Draft EA was also made available for review at the Starr County-Roma Public Library, 1705 North Athens Street, Roma, Texas, 78584, (956) 849-0072 and online at http://www.cbp.gov/xp/cgov/about/ec/nepa_pr/. A public informational meeting was conducted December 9, 2013 at the Recreational Hall at Falcon Village. A copy of the newspaper notice and affidavit of publication are included in Appendix A. There were no attendees at the meeting and no comments were received on the Draft EA. All correspondence sent or received during the preparation of this EA is included in Appendix B (including elected officials and agencies that might have an interested in the proposed action). CBP provided a copy of the Draft EA to the THC and the IBWC for review and comment. The Final EA and signed Finding of No Significant Impact (FONSI) will be made available to the public after an additional NOA is published in the Starr County Town Crier. The Final EA and signed FONSI will also be made available for review at the Starr County-Roma Public Library and online (see addresses above).

Table 1-1. Summary of Guidance, Statutes, Regulations, and Compliance Requirements. ¹

Issue	Acts Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status
Hazardous Waste	Resource Conservation and Recovery Act (RCRA) of 176, 42 USC § 6901 et seq., as amended	U.S. Environmental Protection Agency (USEPA)	Proper management of hazardous and solid wastes and underground storage tanks (USTs)
	Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 USC § 9601 et eq., as amended	USEPA	Development of emergency response plans, notifications and cleanup procedure prior to construction or other activities
Natural Resources	Endangered Species Act (ESA) of 1973, 16 USC § 1531 et seq., as amended	U.S. Fish and Wildlife Service (USFWS) and State Agency	Compliance by agency and/or consultation to assess impacts and develop mitigation if necessary
	Migratory Bird Treaty Act (MBTA) of 1918, 16 USC § 703 et seq.	USFWS	Compliance by agency and/or consultation to assess impacts and develop mitigation if necessary

Table 1-1. Summary of Guidance, Statutes, Regulations, and Compliance Requirements (continued).¹

Issue	Acts Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status
Air Quality	Clean Air Act (CAA), and amendments of 1990, USC § 7401 et seq.	USEPA and State Agency	Compliance with National Ambient Air Quality Standards (NAAQS) and emission limits and/or reduction measures, conformity to de minimis thresholds, preparation of Record of Non-Applicability if necessary
Socioeconomics	Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order (EO) 12898 or 1994, 59 FR 7629 (February 11, 1994)	USEPA	Compliance
Protection of Children	Protection of Children from Environmental Health Risks and Safety Risks of 1997, EO 13045, 62 FR 19883 (April 23, 1997)	USEPA	Compliance
Noise	Noise Control Act (NCA) of 1972, 42 USC § 4901 et seq., as amended	USEPA	Compliance
Human Health and Safety	Safety and Health Regulations for Construction, 29 CFR Part 1926	U.S. Department of Labor (DOL), Occupational Safety and Health Administration (OSHA)	Compliance
Cultural/ Archaeological/ Historical	NHPA of 1966, 16 USC § 470 et seq.	ACHP through the SHPO	Section 106 consultation as necessary
	Archaeological Resources Protection Act (ARPA) of 1979, 16 USC § 470aa et seq.	Affected land-managing agency	Permits to survey and excavate/remove archaeological resources on Federal lands; Native American tribes with interests in resource consulted prior to issue of permits
	Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, PL 101-601	Affected land-managing agency	Compliance by agency
	Indian Sacred Sites of 1996, EO 13007	Affected land-managing agency and Native American tribe	Compliance by agency
	Consultation and Coordination with Indian Tribal Governments of 2000, EO 13175	Affected land-managing agency and Native American tribe	Compliance by agency
	Government-to-Government Relations with Native American Tribal Governments of 1994, Presidential Memorandum	Affected land-managing agency and Native American tribe	Compliance by agency
Sustainability and Greening	Strengthening Federal Environmental, Energy and Transportation Management, EO 13423	CEQ, Office of Management and Budget (OMB), and Federal Environmental Executive (FEE)	Compliance by agency
	Energy Independence and Security Act (EISA) of 2007	OMB	Compliance by agency
	Energy Policy Act of 2005	U.S. Department of Energy (DOE)	Compliance by agency

¹ – List is not necessarily all-inclusive. Other guidance, statutes, regulations, and compliance requirements may exist, including those of State and/or local agencies.

1.7 DOCUMENT ORGANIZATION

This EA is organized into eight major sections including this introduction. Section 2.0 includes a description of the Proposed Action as well as any other alternatives considered (including the No Action Alternative). Section 3.0 includes a description of the environmental resources potentially affected and the environmental consequences that could be expected should the Proposed Action or any other alternative be implemented. Section 4.0 includes a discussion of cumulative impacts. Section 5.0 presents any mitigation measures that may be required and the best management practices (BMPs) that would be implemented. Irretrievable and

irreversible commitments of resources are discussed in Section 6.0. Sections 7.0, 8.0, and 9.0 include a list of the references cited throughout the document, a list of acronyms and abbreviations used in the document, and a list of the persons involved in the preparation of this EA. Information pertaining to the public involvement aspects of this project are included in Appendix A. Correspondence generated during the preparation of this EA is found in Appendix B. This includes coordination and correspondence with regards to the four (4) housing units considered to be contributing historic properties to the NRHP-eligible Falcon Dam and Falcon Village Historic District. Appendix C includes both the air quality and noise calculations used as part of the impact analysis presented in Section 3.0. Appendix D includes data on hazardous sites listed as occurring in the vicinity of the Falcon Village, as well as information pertaining to the historical use of the area. Asbestos and lead-based paint (LBP) surveys conducted in support of this EA are included in Appendix E and the biological data collected is included in Appendix F. Appendix G includes historical and cultural resources data and reports prepared as part of earlier efforts. Due to the size of some documents, only the Abstract/Executive Summary is presented. The entire reports are on file with the IBWC.

2.0 PROPOSED ACTION AND ALTERNATIVES

This section of the EA describes the Proposed Action and two alternatives that were identified and considered for the proposed project. This section also describes the process used to objectively identify the reasonable alternatives carried forward for detailed analysis, as well as the reasoning for elimination of other alternatives. A comparative summary of the alternatives and how they do or do not meet the selection criteria identified earlier in the process is also included. The Proposed Action consists of demolishing the eight (8) CBP-owned housing units that are no longer needed in support of operations at the Falcon Dam LPOE. Alternative 1 consists of donating up to four (4) of the CBP-owned housing units that are identified as contributing resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District and demolishing the remaining four (4) CBP-owned units. Under the No Action Alternative, the CBP would retain the eight (8) housing units and continue to provide upkeep and maintenance.

2.1 ALTERNATIVES EVALUATION PROCESS

The purpose and need for the Proposed Action was described earlier in Section 1.3. The following process was used to determine which, if any, other alternatives might also satisfy the purpose and need for the project. Alternatives that did not fully satisfy the purpose and need were not carried forward for detailed analysis in this EA. As mentioned, as part of early planning for the proposed project, CBP considered two additional alternatives to the Proposed Action:

- Alternative 1 – Donate up to Four (4) of the CBP-Owned Housing Units Identified as Contributing Resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District and Demolish the Four (4) Remaining CBP-Owned Units.
- No Action - Continued CBP-Ownership of the Eight (8) Housing Units No Longer Needed in Support of Falcon Dam LPOE Operations.

The analysis of alternatives utilized a two-tiered evaluation formulated to concentrate on satisfying the purpose and need for the Proposed Action – to eliminate the need for CBP-ongoing maintenance and upkeep of housing units that are no longer needed in support of operations at the Falcon Dam LPOE. As the alternatives evaluation proceeded through each tier, the alternative(s) that did not satisfy all of the criteria were eliminated from further consideration. Those alternatives that did fully satisfy the criteria continued to be subject to the next set of tier criteria. The following briefly describes the specific evaluation criteria used at each of the two tiers.

- Tier 1 evaluated whether or not the various alternatives would fully satisfy the purpose and need for the proposed project.
- Tier 2 evaluated whether or not the various alternatives would result in adverse environmental impacts (Section 3.0 of this EA).

2.2 ALTERNATIVES ELIMINATED FROM DETAILED STUDY

As a result of the alternatives evaluation process discussed above, Alternative 1 was eliminated from detailed study. The alternative, and the reasoning for elimination, is discussed briefly below.

- **Alternative 1 – Donate up to Four (4) of the CBP-Owned Housing Units Identified as Contributing Resources within the NRHP-Eligible Falcon Dam and Falcon Village Historic District and Demolish the Four (4) Remaining CBP-Owned Units.** Under this alternative, CBP would donate or transfer ownership of up to four (4) of the housing units identified as contributing resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District. This would include housing units C-102, C-104, C-106 (all built in 1962), and L-101 (built in 1965). The remaining four (4) housing units, I-401, I-403, I-405, and I-407 would be demolished. Under this alternative, CBP would no longer be responsible for on-going maintenance and upkeep of the units. CBP officials contacted the IBWC (U.S. Section), the THC, and the Starr County Historical Commission regarding the desire to dispose of the four (units) identified as contributing resources within the NRHP-recommended Falcon Dam and Falcon Village Historic District. Although the Starr County Historical Commission expressed an interest in the use of one (1) or more of the units, the existing infrastructure cannot currently support occupancy (IBWC 2013). As a result, this alternative was eliminated from any further consideration.

2.3 ALTERNATIVES CARRIED FORWARD FOR DETAILED STUDY

As mentioned earlier, only the Proposed Action was deemed to fulfill the purpose and need for action. The No Action Alternative does not satisfy the purpose and need for action; however, pursuant to NEPA, the No Action Alternative has been carried forward as the baseline to which potential impacts of the Proposed Action can be measured.

- **No Action Alternative – Continued CBP-Ownership of the Eight Housing Units No Longer Needed in Support of Falcon Dam LPOE Operations.** Under the No Action alternative, CBP would retain ownership of the eight (8) housing units that are no longer needed to support operations at the Falcon Dam LPOE. Retaining ownership would require CBP to continue to provide on-going maintenance and upkeep on the units. Expenditures would continue for as long as CBP retains ownership of the housing units.

2.4 PROPOSED ACTION

Under the Proposed Action, CBP would demolish eight (8) single-family housing units that it no longer needs to support on-going operations at the nearby Falcon Dam LPOE. As mentioned previously, the units are no longer occupied and are no longer needed. The housing units are located at Falcon Village, approximately ½ mile east/northeast of the LPOE. The housing units are all located on Main Street as shown below in Figure 2-1. Photos of each individual unit are shown in Figure 2-2. Each housing unit is approximately 1,350 square feet (sf) and consists of wood construction covered by siding. The age of each structure is listed in Table 2-1.



Figure 2-1. Location of Each Housing Unit Proposed for Demolition.

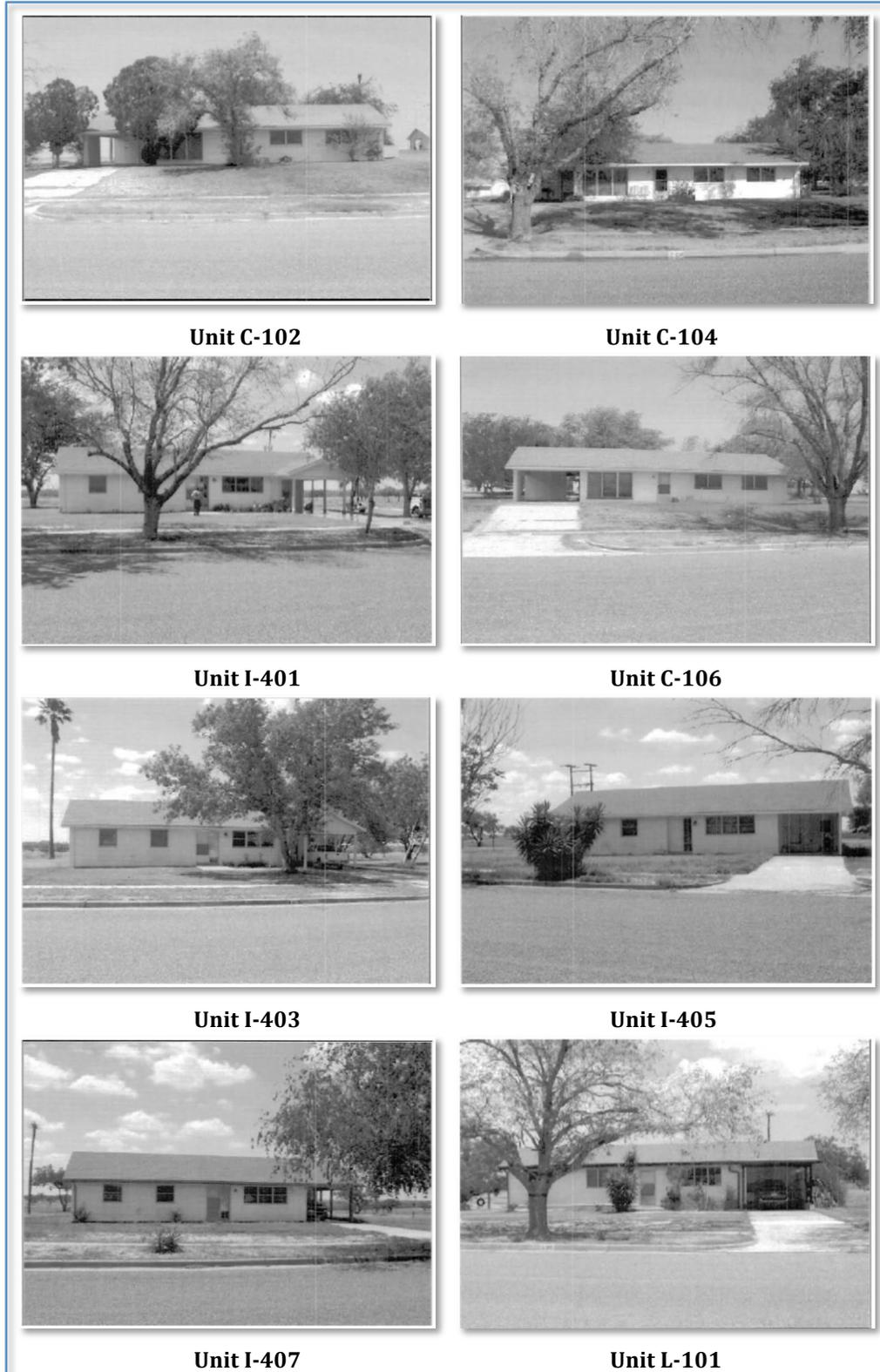


Figure 2-2. Photos of Individual Housing Units Proposed for Demolition.

Table 2-1. Age of Each Housing Unit Proposed for Demolition.

Unit Number	Year Built
C-102	1962
C-104	1962
C-106	1962
L-101	1965
I-401	1970
I-403	1970
I-405	1970
I-407	1970

The overall goal of the project is to demolish and completely remove all housing units and related infrastructure (fences, aboveground and known or discovered underground storage tanks [ASTs and USTs], septic tanks, cisterns, walkways to the houses, steps or entries, fallen trees or vegetation, trees less than 2 inches in diameter, bushes, stumps, etc.) at each of the eight (8) properties. The concrete slabs, driveways, and footing of the units would be protected and left in place to minimize soil erosion. All water and sewer penetrations would be capped below the finish grade of the concrete slabs. All trees larger than 2 inches in diameter would also be protected and left in place. After the demolition activities are completed, all properties would then be restored by filling any holes, trenches, and/or depressions and grading the disturbed areas to match the surrounding areas.

2.4.1 Demolition Activities

It is anticipated that all demolition activities would take no more than 60 days. In accordance with the National Pollutant Discharge Elimination System (NPDES), Texas Commission on Environmental Quality (TCEQ), and the Texas Pollutant Discharge Elimination System (TPDES) (for any site over one [1] acre or part of a common plan of development greater than one [1] acre), a Storm Water Pollution Prevention Plan (SWPPP) would be developed and implemented for demolition activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the project area through implementation of BMPs such as silt fences, storm inlet filters, etc. All nearby and/or adjacent residents would be notified in advance of the planned demolition activities (anticipated days, hours of operation, road closures, detours, utility disruptions, etc.). Prior to demolition, all asbestos-containing building materials (ACM) and LBP would be removed and disposed of in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and other pertinent Federal, state, and/or local regulations. Prior to commencing activities, all site utilities would be disconnected in accordance with prevailing regulations.

There were cave swallow (*Petrochelidon fulva*) and oriole (*Icterus* species) nests at seven (7) of the eight (8) houses. Cave swallows have also recently been observed flying in the immediate area. Both bird species are protected by the MBTA. All cave swallow and oriole nests have been removed by personnel qualified to do such removal. On-site maintenance personnel would continue to inspect the structures on a bi-weekly basis to ensure that no additional nests become established.

Although not observed, there is potential habitat for the Texas horned lizard (*Phrynosoma cornutum*) and Texas indigo snake (*Drymarchon melanurus erebennus*) at the properties. Because of this, prior to activities, all personnel would be trained/instructed on the importance of these species and the need to ensure protection. This would include a site visit, instructional handout materials, pictures, etc. of both species and identification of likely habitat/locations at each of the eight (8) lots. Immediately before demolition commences at each property, a biologist (or other personnel trained/instructed, and/or qualified) would do a walking survey in an effort to make sure neither species is present. If either species is seen or uncovered either prior to, or during demolition, activities would cease and the species would be removed safely (by the qualified personnel) from the property. If any species are seen/encountered, additional care would be taken as demolition activities continue, and based on on-site conditions (presence or absence of either species), activities may be modified in a manner that best allows for the identification and safe removal of either species. This includes potential notification to the USFWS and/or Texas Parks and Wildlife Department (TPWD) to obtain additional guidance, methods, and/or procedures.

Because the demolition of the four (4) houses considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District would adversely affect the District, CBP entered into Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The mitigation measures have been documented in a Memorandum of Agreement (MOA) with the Texas SHPO. The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA.

It is not anticipated that equipment noise would be an issue, however, the contractor would be restricted to operating only between the hours of 8:00 am and 5:00 pm Monday through Friday. The contractor would comply with any local (City and/or County) noise pollution ordinances or other restrictions and ensure that all construction equipment used in the demolition is in good repair with appropriate exhaust/muffler systems. If it becomes necessary to temporarily close adjacent streets or re-route traffic, the contractor would coordinate with the appropriate City and/or County authority, obtain the appropriate permits, and ensure the placement of appropriate barricades, signs, etc. The contractor would ensure site safety and security by the installation/placement of temporary fencing around all work sites. The fencing would remain in place until all materials are removed from the site and all holes or excavated areas are filled. All construction staging including parts and/or materials storage/stockpiling and equipment storage would be within the fenced areas. Should safety or security issues arise, they would be addressed immediately with local CBP, GSA, or other designated on-site personnel. The contractor would adhere to all Federal, state, and local laws and regulations to ensure the safety of all on-site personnel and to protect the welfare of others (including adjacent property, infrastructure, etc.) in the vicinity of the demolition activities.

It is anticipated that demolition activities would require 10 to 15 workers (with as many private vehicles traveling to and from the site daily). When possible, equipment, materials, and labor sources would be from local sources and all would travel to and from the demolition sites via existing roadways. The following equipment (or similar in quantities and/or sizes) would likely be utilized to complete the project (demolition and site restoration):

- 15 Personal vehicles (30 round trips)
- Water truck (15 days)
- Backhoe (15 days)
- Medium track excavator (15 days)
- Medium wheel loader (15 days)
- Medium Dozer (15 days)
- 18-wheel open bed material hauler (15 round trips)
- 18-wheel flat bed for equipment and/or materials delivery (10 round trips)
- Mid-Sized Delivery Trucks (10 round trips)
- 5 local utility worker trucks, inspectors, etc. (10 trips total)
- Welding Equipment, Generators, Miscellaneous Power/Pneumatic Tools, Cutters, etc. (30 days)

The contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. Any generated wastes would be recycled or disposed of according to all applicable regulations. Although equipment would generally not be utilized consistently over the entire project duration (i.e., all equipment running all the time), for analysis purposes, it is assumed that the equipment would be operated approximately 10 hours a day and five days a week over the duration of the project.

The contractor would comply with all applicable Federal, state, and/or local air pollution control requirements, including using water or other chemicals (applied daily or as needed to the housing units, debris piles, etc.) and covering all open-bodied haul trucks to control dust. All demolition debris would be recycled or disposed of at an approved landfill in accordance with all applicable Federal, state, and local laws and regulations. The closest facility is the Starr County Solid Waste Transfer Station, approximately 35 miles southeast of Falcon Village. Similarly, any hazardous wastes generated during the demolition (including oils, lubricants, fuels, asbestos, lead-based paint, Polychlorinated Biphenyl (PCB) containing materials, mercury, etc.) would be disposed of in accordance with all Federal, state, and local regulations. The closest facility that accepts hazardous waste is the

BFI (Browning-Ferris Industries) facility, approximately 85 miles east of Falcon Village. The contractor would be required to adhere to all Federal guidelines pertaining to solid waste disposal, including (but not limited to) EO 13514 (Federal Leadership in Environmental, Energy, and Economic Performance) and EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management), the EISA of 2007, and the Energy Policy Act of 2005.

2.4.2 Site Restoration

Upon completion of the demolition activities and removal of all debris, all holes, trenches, or other depressions would be backfilled (using on-site material if possible) and graded similar to adjacent properties, with a uniform slope for adequate drainage.

2.5 Proposed Action and Alternatives Summary

As mentioned earlier, only the Proposed Action was deemed to fulfill the purpose and need for action, and as a result, is the CBP's preferred method of implementing the proposed project. The No Action alternative does not satisfy the purpose and need for action; however, pursuant to NEPA, the No Action Alternative has been carried forward as the baseline to which potential impacts of the Proposed Action can be measured. A summary comparison of the Proposed Action and No Action Alternative, as it relates to the purpose and need for the project is below in Table 2-2.

Table 2-2. Summary Comparison of the Proposed Action and No Action Alternative.

Purpose and Need	Proposed Action	No Action Alternative
Eliminates the expense associated with on-going ownership, maintenance, and upkeep on eight (8) CBP-owned housing units that are no longer needed to support operations at the Falcon Dam LPOE.	Yes	No

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section of the EA describes the natural and human environment found at the CBP-owned houses and the properties on which they are located. A larger region of influence (ROI) which encompasses the whole Falcon Village area is also sometimes referenced in the descriptions (Figure 3-1). This section also describes the likely impacts of taking No Action and those associated with implementing the Proposed Action.

CEQ regulations (§1501.7) state that the lead agency shall identify and eliminate from detailed study the issues which are not important or which have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief presentation of why they would not have a dramatic effect on the human environment. As such, only those issues/resources that have the potential to affect, or be affected by, the Proposed Action are discussed in this section. A listing of those issues included for discussion and those eliminated from detailed study (along with a brief reasoning for inclusion or elimination) are shown in Table 3-1.

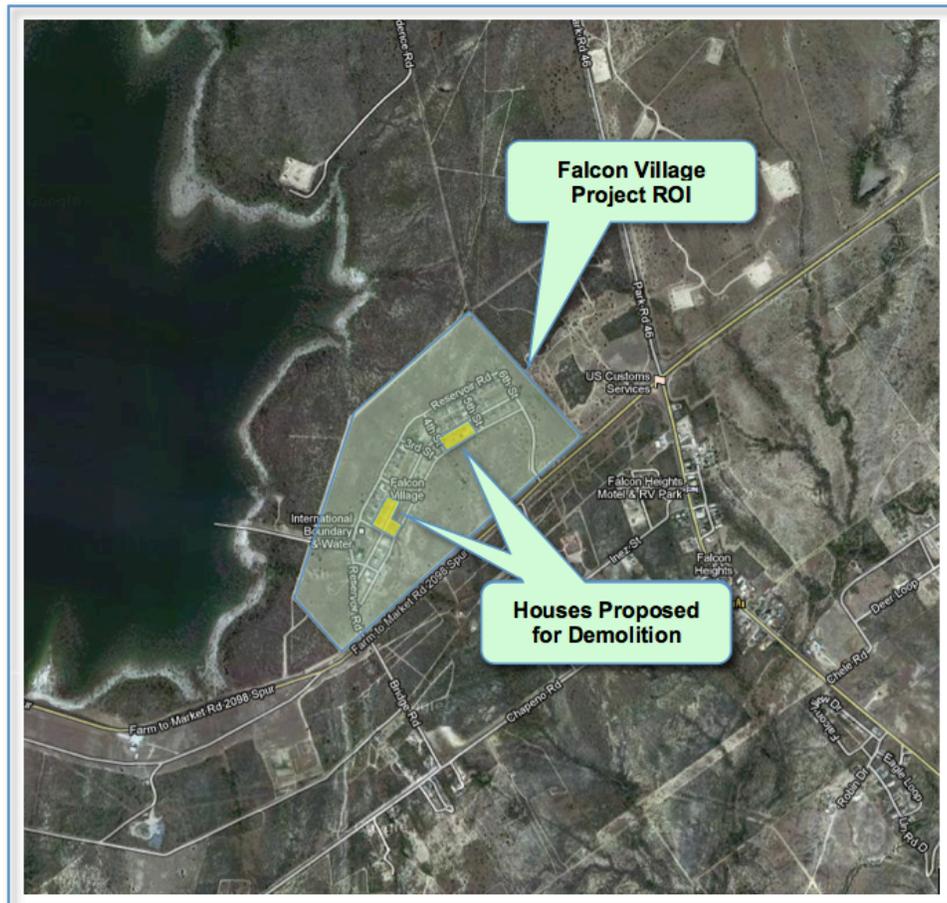


Figure 3-1. Project ROI (Falcon Village).

Impacts or environmental consequences can be either beneficial or adverse and can be either directly related to the Proposed Action or indirectly caused by the Proposed Action. Impacts can also be cumulative in nature (discussed in Section 4.0). Direct impacts are those effects that are caused by the action and occur at the same time and place (40 CFR §1508.8[a]). Indirect impacts are those effects that are caused by the action and are later in time or further removed in distance but that are still reasonably foreseeable (40 CFR §1508.8[b]). Impacts are generally either short-term or long-term in nature. A short-term impact would be one that lasts perhaps just the duration of construction or demolition activities, with conditions returning to normal once those activities were completed. A long-term impact would be one that creates a lasting change, perhaps an increase in traffic in an area as a result of a new facility.

Table 3-1. Issues and/or Resources Relevant to this Action and Those Eliminated from Further Discussion in This EA.

Issue/Resource	Potentially Affected by Implementing the Proposed Action?	Included in this EA?	Reasoning for Inclusion/Elimination
Air Quality	Yes	Yes	Ground-disturbing activities and the operation of heavy equipment could result in impacts to local air quality.
Noise	Yes	Yes	Demolition activities and the operation of heavy equipment could result in localized noise impacts.
Sustainability and Greening	No	No	All pertinent laws, EOs, regulations, etc. would be implemented and adhered to.
Human Health and Safety	No	No	All pertinent laws, EOs, regulations, etc. would be implemented and adhered to.
Land Use	No	No	The proposed housing demolition would not change the land use of the ROI.
Unique and Sensitive Areas	No	No	There are no lands classified as unique or sensitive (i.e., Wilderness Area) within or near the ROI.
Utilities and Infrastructure	No	No	All existing utilities would be properly disconnected prior to demolition activities.
Hazardous Materials and Sites	Yes	Yes	There is the potential that hazardous materials could be used, generated, or encountered as part of the demolition activities.
Traffic, Transportation, and Parking	No	No	The proposed housing demolition would not impact local traffic, transportation, or parking. All equipment and materials would be transported on existing roadways in accordance with prevailing laws.
Asbestos and Lead-Based Paint	Yes	Yes	Due to the age of the houses, there is the potential for asbestos and/or lead-based paint issues.
Geology and Soils	No	No	The proposed housing demolition would have no effect on the geology or soils in the ROI.
Prime Farmlands	No	No	There are no soils designated as Prime Farmlands within the ROI.
Surface Waters	No	No	There are no surface water features within the ROI.
Wild and Scenic Rivers	No	No	There are no designated Wild and Scenic Rivers within the ROI.
Natural Vegetation	No	No	There is no natural vegetation or habitat present within the ROI.
Wildlife, Protected Species/Critical Habitats, and Migratory Birds	Yes	Yes	There is the potential that wildlife and/or protected species have taken up residency at or around the vacant housing units (particularly birds).
Socioeconomics	Yes	Yes	There is the potential that demolition activities could have affect local populations, income, employment, and/or housing conditions in the area.
Environmental Justice and Protection of Children	Yes	Yes	There is the potential that the demolition activities could have a disproportionate effect on minority and/or low-income populations or children that may reside in the area.
Cultural and Historic Resources	Yes	Yes	Four (4) of the units proposed for demolition have previously been considered to be contributing properties to the NRHP-eligible Falcon Dam and Falcon Village Historic District.
Aesthetics and Visual Resources	Yes	Yes	Demolition of the housing units would alter the visual characteristics of a NRHP-eligible District.

3.1 AIR QUALITY

The CAA (42 USC 7401-7671q), as amended, provides the framework for Federal, state, tribal, and local rules and regulations to protect air quality. The CAA gives the USEPA the responsibility to establish the primary and secondary NAAQS (40 CFR §50) that set safe concentration levels for six criteria pollutants: particulate matter measuring less than 2.5 and 10 microns in diameter (PM_{2.5}, PM₁₀), sulfur dioxide (SO₂), carbon monoxide (CO), nitrous oxides (NO_x), ozone (O₃), and lead (Pb). Primary NAAQS are established to protect public health, and secondary standards provide protection for the public welfare, which includes wildlife, climate, transportation, and economic values (Table 3-2). Additionally, the USEPA also has responsibility for ensuring that air quality standards are met to control pollutant emissions from mobile (i.e., vehicles) and stationary (i.e., factories) sources.

The NAAQS represent the maximum levels of background pollutants considered safe, with an adequate margin of safety to protect public health and welfare. Short-term standards (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term standards (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt standards stricter than those established under the Federal program; however, the TCEQ accepts the Federal standards for the Starr County area.

Areas that violate NAAQS are designated as nonattainment areas, and areas that comply with air quality standards are designated attainment areas for the relevant pollutants. Attainment/maintenance areas are areas that have previously been designated nonattainment, and have subsequently been re-designated to attainment, for a probationary period, due to complying with the NAAQS. Attainment/maintenance status is achieved through the development and implementation of maintenance plans for criteria pollutants of interest. The CAA contains the legislation that mandates the general conformity rule to ensure that Federal actions in nonattainment and attainment/maintenance areas do not interfere with a state's timely attainment of the NAAQS. The CAA also requires that Federal agencies demonstrate that their actions conducted in nonattainment and attainment/maintenance areas conform to the purposes of the State Implementation Plan (SIP). The general conformity rule divides the air conformity process into two distinct areas: applicability analysis and conformity determination. The applicability analysis process requires Federal agencies to determine if their proposed action(s) would increase emissions of criteria pollutants above the threshold levels (40 CFR §93.153). These threshold rates vary depending on severity of nonattainment and geographic location (Table 3-3 and 3-4). *De minimis* emissions are total direct and indirect emissions of a criteria pollutant that are caused by a Federal action in a nonattainment or attainment/maintenance area in less than these threshold rates.

Table 3-2. National Ambient Air Quality Standards.

Air Pollutant	Averaging Time	NAAQS	
		Primary ¹	Secondary ²
CO	1-hour	35 ppm	None
	8-hour	9 ppm	None
NO _x	1-hour	100 ppb	None
	Annual	53 ppb	53 ppb
SO ₂	24-hour	0.14 ppm	0.5 ppm (3-hour)
	Annual	0.03 ppm	0.5 ppm (3-hour)
PM ₁₀	24-hour	150 µg/m ³	150 µg/m ³
PM _{2.5}	Annual	15.0 µg/m ³	15.0 µg/m ³
	24-hour	35 µg/m ³	35 µg/m ³
O ₃	1-hour ³	0.12 ppm	0.12 ppm
	8-hour (1997)	0.08 ppm	0.08 ppm
	8-hour (2008)	0.075 ppm	0.075 ppm
Pb	Rolling 3-Month Average	0.15 µg/m ³	0.15 µg/m ³
	Quarterly average	1.5 µg/m ³	1.5 µg/m ³

1 -Primary standards set limits to protect public health, including the health of "sensitive" populations (asthmatics, children, elderly, etc.).

2 -Secondary standards set limits to protect public welfare (i.e., protection against decreased visibility, and damage to animals, crops, vegetation, and buildings).

3 -The ozone 1-hour standard applies only to designated nonattainment areas.

ppm - parts per million ppb - parts per billion µg/m³ - micrograms per cubic meter

Source: USEPA 2013

Table 3-3. Applicability Thresholds for Criteria Pollutants in Nonattainment Areas.

Criteria Pollutants/NAA Status	TPY
O₃ (VOCs or NO_x)	
Serious NAAs	50
Severe NAAs	25
Extreme NAAs	10
Other O ₃ NAAs outside an O ₃ transport region	100
Marginal and moderate NAAs inside an O ₃ transport region	50
VOC	100
CO	
All NAAs	100
SO₂ or NO_x	
All NAAs	100
PM₁₀	
Moderate NAAs	100
Serious NAAs	70
Pb	
All NAAs	25

NAA nonattainment areas
 TPY tons per year
 VOC volatile organic compound
 Source: USEPA 2010

Table 3-4. Applicability Thresholds for Attainment/Maintenance Areas.

Criteria Pollutants	TPY
O₃ (NO_x, SO₂ or NO₂)	
All maintenance areas	100
O₃ (VOCs)	
Maintenance areas inside an O ₃ transport region	50
Maintenance areas outside an O ₃ transport region	100
CO	
All maintenance areas	100
PM₁₀	
All maintenance areas	100
Pb	
All maintenance areas	25

TPY tons per year
 VOC volatile organic compounds
 Source: 40 CFR §93.153

An action is subject to the general conformity rule if the emissions are deemed regionally significant, even if the emissions are *de minimis*. Regionally significant emissions are defined as the total direct and indirect emissions of a Federal action for any criteria pollutant that represents 10 percent or more of a nonattainment or maintenance area's emission inventory for that pollutant.

3.1.1 Affected Environment

Federal regulations (40 CFR §81) have defined Air Quality Control Regions (AQCRs) or airsheds for the entire United States. AQCRs are based on population and topographic criteria for groups of counties within a state, or counties from multiple states that share a common geographical or pollutant concentration characteristic. Starr County is located within the Brownsville-Laredo Intrastate AQCR or AQCR 213. The Brownsville-Laredo Intrastate AQCR is currently designated by the USEPA as being in "attainment" for all NAAQS criteria pollutants.

3.1.2 Environmental Consequences

3.1.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant impacts to air quality. Under the No Action Alternative, the eight (8) CBP-owned housing units would not be demolished. As a result, there would be no

operation of heavy equipment and no generation of dust associated with demolition activities. There would be no change in ambient air quality conditions and no significant impacts would occur.

3.1.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant air quality impacts; however, minor, short-term adverse impacts could be expected on a local level, throughout the duration of the demolition activities. Conditions would be expected to return to normal once activities were completed. The temporary impacts would primarily be the result of soil disturbances, razing of the homes, and exhaust emissions from heavy equipment and on-road worker and material/equipment delivery vehicles. As previously mentioned, Starr County is in an attainment area. The USEPA has not established thresholds for attainment areas, however, de minimis thresholds have been developed for non-attainment areas (40 CFR 93 § 153). As such, the de minimis threshold for maintenance areas (non-attainment areas that are currently meeting standards) are used as a benchmark for comparison of potential air quality impacts.

Disturbing the soil at each property and razing each of the houses would result in the generation of PM₁₀ and PM_{2.5}. This would be in the form of fugitive dust at and immediately around each site. Fugitive dust emissions would vary from day to day depending on the demolition phase, level of activity, and prevailing weather conditions. The quantity of uncontrolled fugitive dust emissions from an activity such as demolition is a function of the size/area of the buildings to be razed and the level of activity. Uncontrolled fugitive emissions of PM₁₀ from demolition activities are estimated at a rate of 0.00025 kilograms (kg) of PM₁₀ per square meter of building razed (USEPA 1992). Approximately 15 percent of the PM₁₀ emissions are actually PM_{2.5} (Cowherd and Kuykendal (1997). As described earlier in Section 2.4, demolition would include 8 housing units, each consisting of approximately 1350 sf. Table 3-5 summarizes the amount of fugitive dust generation that could be expected as a result of the Proposed Action. As shown, the amount of fugitive dust (PM₁₀ and PM_{2.5}) would be minor.

Equipment operation and on-road worker and material/equipment delivery vehicles would result in the production of criteria pollutant emissions. Emissions from heavy equipment exhausts were estimated using the USEPA NONROAD2008 Emission Factor Model. Emissions from on-road engines were estimated using USEPA emission factors (USEPA 2005). As shown in Table 3-5 below, the combined activities at all of the eight sites would be expected to release only minor amounts of NO_x, CO, VOCs, and SO₂.

As mentioned earlier in Section 2.4.1, the contractor would comply with all applicable Federal, state, and/or local air pollution control requirements, including using water or other chemicals (applied daily or as needed to the housing units, debris piles, bare soils, etc.) and covering any open-bodied haul trucks to control dust. These measures would further ensure no significant air quality impacts.

Table 3-5. Estimated Annual Criteria Pollutant Emissions for the Proposed Action.

Criteria Pollutant	Off-road Emissions (tons per year)	On-road Emissions (tons per year)	Demolition Emissions (tons per year)	Total Emissions (tons per year) ¹	De Minimis Threshold (tons per year) ^{2,3}	Above Threshold?
NO _x	0.63	0.053	--	0.683	100	No
CO	0.26	0.319	--	0.579	100	No
VOC	0.05	0.035	--	0.085	100	No
SO ₂	0.002	--	--	0.002	100	No
PM ₁₀	0.05	0.001	0.0003	0.0513	100	No
PM _{2.5}	0.05	0.001	0.00004	0.05104	10	No

1 - See Appendix C for detailed air calculations.

2- All properties are located in an attainment area and as such there are no de minimis thresholds. However, the de minimis threshold for non-attainment maintenance areas was used as a basis for comparison.

3- No de minimis threshold has been established for PM_{2.5} by the USEPA, however the major source modification significant emission rate (SER) is 10 tons/year and is used as a basis for comparison.

3.2 NOISE

Acoustical noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies according to the type and characteristics of the noise sources, distance between source and receiver, receiver sensitivity, and time of day. Sound is a physical phenomenon consisting of minute vibrations, which travel through a medium, such as air, and are sensed by the human ear. The ear senses these vibrations as changes in pressure, and as a result sound levels are most commonly referred to as “sound pressure levels.”

Sound levels are expressed in units of decibels. The term decibel (dB) implies a logarithmic ratio of the measured pressure to a reference pressure. This reference pressure refers to a pressure that is just barely detectable by the human ear. The human ear responds differently to sounds at different frequencies. This is demonstrated by the fact that we hear higher pitched sounds more easily than lower ones of the same magnitudes. To compensate for the different “loudness” levels as perceived by humans, a standard weighting curve is applied to measured sound levels. This weighting curve represents the human ear’s sensitivity and is labeled “A” weighting. The units of magnitude of the sound level are therefore written as dBA (“A” weighted decibels). All sound levels analyzed in this EA are A-weighted unless otherwise noted.

- **Day-Night Average Sound Level.** In this EA, the day-night average sound level (DNL) is used to describe noise. The DNL is a cumulative metric that accounts for the total sound energy occurring over a 24-hour period, with nighttime noise weighted more heavily to reflect community sensitivity to noise during nighttime hours. Noise levels in excess of DNL 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, and hospitals. Studies of community annoyance to numerous types of environmental noise show that DNL correlates well with percentages of groups of persons highly annoyed (Fidell et al. 1991).
- **Time Averaged Sound Level.** This metric represents a continuous sound level having the same acoustic energy and time interval as the actual fluctuating sound event.
- **Maximum Sound Level.** The highest A-weighted sound level measured during a single event in which the sound level changes value as time goes on (e.g., an aircraft overflight) is called the maximum A-weighted sound level or maximum sound level (L_{max}).
- **Speech Interference.** Speech interference associated with construction noise is a cause of annoyance to individuals. The disruption of routine activities such as listening or telephone use gives rise to frustration and irritation. The quality of speech communication is also important in classrooms, offices, and industrial settings and can cause fatigue and vocal strain to those who attempt to communicate over the noise. Research has shown that the use of the sound exposure level (SEL) metric will measure speech interference successfully and that an SEL exceeding 65 dBA will begin to interfere with speech communication.
- **Noise Annoyance.** Noise annoyance is defined by the USEPA (1974) as any negative subjective reaction on the part of an individual or group. As noted in the discussion of DNL above, community annoyance is best measured by that metric. Because the USEPA (1974) Levels Document identified DNL 55 dBA as “...requisite to protect public health and welfare with an adequate margin of safety,” it is commonly assumed that 55 dBA should be adopted as a criterion for community noise analysis. From a noise exposure perspective, that would be an ideal selection. However, financial and technical resources are generally not available to achieve that goal. Most agencies have identified DNL 65 dBA as a criterion which protects those most impacted by noise and which can often be achieved on a practical basis (Federal Interagency Committee on Noise [FICON] 1992). Although DNL 65 dBA is widely used as a benchmark for evaluating potential significant noise impact, and is often an acceptable compromise, it is not a statutory limit and it is appropriate to consider other thresholds for particular cases.
- **Hearing Loss.** Noise-induced hearing loss is probably the best defined of the potential effects of human exposure to excessive noise. Federal workplace standards for protection from hearing loss allow a time-average level of 90 dBA over an 8-hour work period, or 85 dBA averaged over a 16-hour period. Even the

most protective criterion suggests a time-average sound level of 70 dBA over a 24-hour period (USEPA 1974). Since it is unlikely that receivers will remain exposed to this level for 24 hours per day for extended periods, there is little possibility of hearing loss below DNL 75 dBA.

The Noise Control Act of 1972 (Public Law [PL] 92-574) directs Federal agencies to comply with applicable Federal, state, interstate, and local noise control regulations. In 1974, the USEPA provided information on negative effects of noise and identified indoor and outdoor noise limits that protect public health and welfare. In addition, sound quality criteria promulgated by the USEPA and the U.S. Department of Housing and Urban Development have identified noise levels to protect public health and welfare with an adequate margin of safety. These levels are considered acceptable guidelines for assessing noise conditions in an environmental setting. Average acceptable day-night sound pressure levels fall in a range between 40 dBA in quiet suburban areas and 70 dBA in very noisy urban areas (USEPA 1974). Table 3-6 lists some common sound levels associated with everyday activities and devices.

Table 3-6. Common Sound Levels.

Outdoor	dBA	Indoor
Snowmobile	100	Subway Train
Tractor	90	Garbage Disposal
Noisy Restaurant	80	Blender
Downtown (Large City)	70	Ringling Telephone
Freeway Traffic	60	TV Audio
Power Lawn Mower	50	Sewing Machine
Normal Conversation	40	Refrigerator
Rainfall	30	Library
Quiet Residential Area	20	

dBA - "A" weighted decibels

Source: League for the Hard of Hearing 2002

3.2.1 Affected Environment

Average acceptable day-night sound pressure levels are typically approximately 40dB in rural areas (USEPA 1974). The day-night sound level is a cumulative metric that accounts for the total sound energy occurring over a 24-hour period, with night time noise (occurring from 10 p.m. to 7 a.m.) more heavily weighted to reflect community sensitivity during nighttime hours. The only receptors in the immediate area are other existing houses. In general, these houses are approximately 100 feet away, with the nearest property lines being 50 feet away.

3.2.2 Environmental Consequences

3.2.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant noise impacts. Under the No Action Alternative, the eight (8) CBP-owned housing units would not be demolished. As a result, there would be no operation of heavy equipment and no change in the existing noise environment at and around the houses.

3.2.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant noise impacts; however, a minor, short-term increase (i.e., minor negative impact) in noise could be expected throughout the duration of the demolition activities. Conditions would be expected to return to normal once activities were completed. The temporary impacts would be the result of heavy equipment operation.

Noise associated with activities such as these are difficult to predict because heavy machinery, the major source of noise, is constantly moving in unpredictable patterns. However, operations normally occur during daytime hours and on weekdays when occasional loud noises are more apt to be already occurring in an area and be more tolerable. The approximate sound pressure levels associated with each noise source (i.e., each piece of heavy equipment) have been tabulated and are listed in Table 3-7. The calculations were conducted in accordance with the “Transit Noise and Vibration Impact Assessment” manual, dated May 2006. When source-specific data were not available, worst-case scenario data were utilized. The detailed noise calculations performed for this assessment are included in Appendix C.

Table 3-7. Construction Equipment Noise Emission Levels.

Equipment	Usage Factor (%) ¹	Typical Noise Level (dBA) 50 ft from Source ²
Air Compressor	40	81
Backhoe	40	80
Bucket Lift ³	20	85
Compactor	20	82
Concrete Mixer	40	85
Concrete Pump	20	82
Concrete Vibrator	20	76
Crane, Derrick	16	88
Crane, Mobile	16	83
Dozer	40	85
Drill Rig ³	20	84
Excavator ³	40	85
Generator	50	81
Grader	40	85
Jack Hammer	20	88
Loader	40	85
Paver	50	89
Pneumatic Tool	50	85
Pump	50	76
Rock Drill	20	98
Roller	20	74
Saw	20	76
Scarifier	20	83
Scraper	40	89
Shovel	20	82
Truck	40	88
Welding Torch	40	73
Wheel Loader ⁴	40	85

- 1 - Federal Highway Administration, “Roadway Construction Noise Model User’s Guide,” FHWA-HEP-05-054, January 2006.
- 2 - Federal Transit Administration, “Transit Noise and Vibration Impact Assessment,” FTA-VA-90-1003-06, May, 2006.
- 3 - The typical noise level for this equipment was obtained as spec data from the Federal Highway Administration, “Roadway Construction Noise Model User’s Guide,” FHWA-HEP-05-054, January 2006.
- 4 - Metropolitan Transportation Authority/New York City Transit – Reference Louis Berger Group 2003.

As shown below in Table 3-8, a one-hour composite sound level (based on the amount of noise generated from combined sources) of approximately 89.8 dB on the A-weighted scales (dBA) could be expected at approximately 50 feet from the demolition activities. The 10-hr SELs at the property line would be approximately 85.8 dB. Based on the concept of spherical spreading, SELs would diminish at increasing distances, and at the nearest receptor (approximately 100 feet away), the 10-hr SEL would be approximately 79.8 dB. It should be noted, however, that several differing scenarios (e.g., types, make, model of equipment, run times, etc.) could alter these results. All of these levels would be below the 90 dB OSHA standards for permissible worker exposure for an 8-hour duration.

As mentioned earlier in Section 2.4.1, in an effort to minimize any potential annoyances caused by a temporary increase in noise levels, advance notice would be provided to all adjacent homeowners and demolition activities

would be limited to between 8:00 am and 5:00 pm, Monday through Friday. These measures would further ensure no significant impacts as a result of a short-term increase in noise.

Table 3-8. Expected Noise Levels as a Result of the Proposed Action ^{1,2}.

Phase	Estimated Existing Noise Level ³	Proposed Action Leq at 50 Feet ⁴	Proposed Action 10-Hour SEL at Property Lines	Proposed Action 10-Hour SEL at Nearest Receptors ⁵	OSHA Permissible 8-Hour Noise Exposure Threshold	Increase Above Existing Noise Levels at Nearby Receptors?	Type of Impact
Demolition	40 dB	89.8	85.8	79.8	90	Yes	Temporary – would return to normal once all demolition activities are completed.

Note: Calculations based on Section 12.1.1 of “Transit Noise and Vibration Impact Assessment” using the general assessment assumptions found in that section.

- 1 - All Levels are A-weighted decibel levels (dBA).
- 2 - Refer to Appendix C for detailed noise calculations.
- 3 - See Section 3.2.1.
- 4 - From combined calculation of the two noisiest pieces of equipment expected to be used for each construction phase.
- 5 - Nearest receptors are adjacent residences.

3.3 HAZARDOUS MATERIALS AND SITES

Concerns over the improper handling and disposal of solid and hazardous wastes that posed a continuing threat to the environment and a danger to human health led to the enactment of RCRA of 1976. The RCRA replaced the Solid Waste Disposal Act and authorized the USEPA to provide for cradle-to-grave management of hazardous waste and set a framework for the management of non-hazardous municipal solid waste. Under RCRA, a waste is defined as hazardous if it is ignitable, corrosive, reactive, toxic, or listed by the USEPA as being hazardous. CERCLA of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986 authorize the USEPA to respond to spills and other releases of hazardous substances to the environment. It also authorizes the National Oil and Hazardous Substances Pollution Contingency Plan. Title III of SARA authorizes the Emergency Planning and Community Right-to-Know Act (EPCRA), which requires facility operators with hazardous substances to prepare comprehensive emergency plans and to report accidental releases. EO 12856 (Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, August 1993) requires federal agencies to comply with the provisions of EPCRA.

Title I of the Toxic Substances Control Act (TSCA) established requirements and authorities to identify and control toxic chemical hazards to human health and the environment. The TSCA authorized the USEPA to gather information on chemical risks, require companies to test chemicals for toxic effects, and regulate chemicals with unreasonable risk. The TSCA also singled out PCBs for regulation and as a result are being phased out. The TSCA and its regulations govern the manufacture, processing, distribution, use, marking, storage, disposal, cleanup, and release reporting requirements for numerous chemicals like PCBs. PCBs are persistent when released into the environment and accumulate in the tissues of living organisms. They have been shown to cause adverse health effects on laboratory animals and may cause adverse health effects in humans.

3.3.1 Affected Environment

In an effort to define the baseline characteristics of the Falcon Village area as it relates specifically to hazardous materials and sites, Environmental Data Resources, Inc. (EDR) was contracted to provide research typical of that obtained for conduct of a Phase I Environmental Site Assessment (ESA) in accordance with the American Society for Testing Materials (ASTM) E 1527-05 standards and guidance. As such, data, research, and records obtained include:

- Standard Environmental Records Review/Radius Map Report
- Historical Aerial Photography

- Historical Topographic Mapping (limited)

A site visit/reconnaissance was also conducted as well as interviews with persons potentially knowledgeable about the past use of the properties. There was no Sanborn or City Directory data available for the Falcon Village area. The information presented below summarizes the findings of the research. Details are provided in Appendix D. Due to the age of the houses proposed for demolition (built 1962 to 1970), there is a potential for ACM and LBP to be present. These issues are discussed in detail in Section 3.4.

3.3.1.1 Standard Environmental Records Review

As mentioned above, EDR was contracted to conduct a search of Federal, State, and other databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-05 are summarized in the following table (Table 3-9). Details can be found in Appendix D. As shown in the table, there were no sites identified within the vicinity of Falcon Village.

Table 3-9. Potential Hazardous Materials Sites Identified in the Vicinity of Falcon Village.

Database	Falcon Village Listed?	Total Number of Listings (including Falcon Village)	Potential Issue or REC?
Federal NPL Sites (< 1 mile)	No	0	No
Federal Proposed NPL (< 1 mile)	No	0	No
Federal NPL LIENS (Target Property Only)	No	0	No
Federal Delisted NPL Sites (< 1 mile)	No	0	No
Federal CERCLIS Sites (< 0.5 mile)	No	0	No
Federal Facility (< 1 mile)	No	0	No
Federal CERCLIS NFRAP Sites (< 0.5 mile)	No	0	No
Federal RCRA CORRACTS Sites (< 1 mile)	No	0	No
Federal RCRA TSDF (< 0.5 mile)	No	0	No
Federal RCRA LQG (< 0.25 mile)	No	0	No
Federal RCRA SQG (< 0.25 mile)	No	0	No
Federal RCRA CESQG (< 0.25 mile)	No	0	No
Federal U.S. Engineering Controls (< 0.5 mile)	No	0	No
Federal U.S. Institutional Controls (< 0.5 mile)	No	0	No
Federal ERNS Sites (Target Property Only)	No	0	No
State SHWS (< 1 mile)	No	0	No
State SWF/LF (< 0.5 mile)	No	0	No
State CLI (<0.5 mile)	No	0	No
State WasteMgt (Target Property Only)	No	0	No
State LPST (< 0.5 mile)	No	5	No
Indian LUST Sites (< 0.5 mile)	No	0	No
State UST/AST Sites (< 0.25 mile)	No	0	No
Indian and FEMA UST (< 0.25 mile)	No	0	No
State AUL Sites (<0.5 mile)	No	0	No
State and Indian VCP Sites (< 0.5 mile)	No	0	No
US BROWNFIELDSD (< 0.5 mile)	No	0	No
RCRA-NonGen (< 0.25 mile)	No	0	No
DOD (< 1 mile)	No	0	No
FINDS (Target Property Only)	No	0	No
FUDDS (< 1 mile)	No	0	No
ROD (< 1 mile)	No	0	No

REC – Recognized Environmental Condition
NPL – National Priority List
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
NFRAP – No Further Remedial Action Planned
RCRA – Resource Conservation and Recovery Act
CORRACTS – RCRA Corrective Action Site
TSDF – Treatment, Storage, and Disposal Facility
LQG – Large Quantity Generator
SQG – Small Quantity Generator
CESQG – Conditionally Exempt SQG
LPST – Leaking Petroleum Storage Tank

SHWS – State Hazardous Waste Sites
LUST – Leaking Underground Storage Tank
UST – Underground Storage Tank
AST – Aboveground Storage Tank
ERNS – Emergency Response Notification System
AUL – Listing of Institutional/Engineering Control Registries
VCP – Voluntary Cleanup Program
DOD – Department of Defense
FUDDS – Formerly Used Defense Site
ROD – Record of Decision
FINDS – Facility Index System/Facility Registry System

3.3.1.2 Historical Photography and Mapping

As previously mentioned, historical aerial photography and U.S. Geological Survey (USGS) mapping was obtained and reviewed as part of defining the existing Falcon Village environment. Aerial photograph years included: 1946, 1955, 1964, 1971, 1983, 2002, 2004, 2005, 2006, 2008, 2010, and 2012. USGS (or other original source) mapping included: 1938, 1965, 1985, and 2012. All obtained historical aerial photographs and maps are included in Appendix D. Review of the data resulted in the identification of no hazardous materials issues associated with historical development or past uses at and immediately surrounding the Falcon Village area.

3.3.1.3 Site Reconnaissance and Interviews

As part of the investigations conducted for this EA, a site reconnaissance was performed on July 25, 2013. The primary purpose of the site reconnaissance was to see if there were any environmental (or other) impacts/issues associated with past use of each of the eight (8) properties. Each property was visited and photographed (see Appendix D). There was no evidence of past hazardous materials issues associated with any of the properties. There were no ASTs observed at any of the properties and no indication of any USTs present at any of the properties. Additionally, several persons who would likely have knowledge regarding the past use of the properties were contacted/interviewed in an effort to see if they had any specific knowledge about past environmental impacts/issues associated with the properties (see Appendix D). None had knowledge of any specific environmental issues associated with past use of the properties.

3.3.2 Environmental Consequences

3.3.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant impacts as a result of hazardous materials or existing hazardous sites. Under the No Action Alternative, the eight (8) CBP-owned housing units would not be demolished. There would be no operation of equipment and no ground-disturbing activities, and as a result, no potential for impacts.

3.3.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant impact as a result of the use of hazardous materials or chemicals as part of demolition activities or from encountering hazardous materials and/or sites during demolition activities. As mentioned previously in Section 3.3.1, there appear to be no known hazardous materials sites in the vicinity of the houses proposed for demolition. A review of historical aerials and historical topographic mapping resulted in the identification of no past environmental issues associated with the properties. Contact/interviews with individuals that would likely have knowledge of any environmental issues associated with past use of the properties resulted in the identification of no known environmental issues. Because of the age of the houses proposed for demolition (built 1962 to 1970), there is a potential for ACM and LBP to be present. These issues are discussed in detail in the following section (Section 3.4). As discussed earlier in Section 2.4.1, all demolition debris would be recycled or disposed of at an approved landfill in accordance with all applicable Federal, state, and local laws and regulations. Similarly, any hazardous wastes generated during construction activities would be disposed of in accordance with all Federal, state, and local regulations. In accordance with the Guiding Principles for Leadership in High-Performance and Sustainable Buildings, at least 50 percent of debris would be diverted from landfills. As a result, no significant impacts would be anticipated.

3.4 ASBESTOS AND LEAD-BASED PAINT

The USEPA and the Occupational Safety and Health Administration (OSHA) regulate ACM and ACM abatement. The State of Texas also has regulations pertaining to ACM abatement. Emissions of asbestos fibers into the ambient air are regulated in accordance with Section 112 of the CAA, which established NESHAP. NESHAP addresses the demolition or renovation of buildings containing ACM. TSCA Title II provides statutory framework

for “Asbestos Hazard Emergency Response,” which applies only to schools. The Texas Department of State Health Services (TDSHS) administers the State’s asbestos abatement regulation. These regulations cover demolition activities and are more stringent than the NESHAP program. The current CBP practice is to manage ACM in active facilities and abate ACM per regulatory requirements prior to any facility demolition. Abatement of ACM occurs when there is a potential for asbestos fiber releases that could affect the environment or human health.

Lead is a heavy, ductile metal that is commonly found in organic compounds, oxides, and salts, or as metal. Human exposure to lead has been determined to be an adverse health risk by agencies such as the USEPA, OSHA, U.S. Department of Housing and Urban Development (HUD) and multiple state agencies (including the TDSHS). Sources of exposures to lead are generally through paint, dust, and soil. According to HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 milligram/square centimeter (mg/cm²) or above is considered positive for the presence of LBP. The State of Texas also uses an action level of 1.0 mg/cm². Waste materials containing levels of lead exceeding the total threshold limit concentration of 1,300 milligrams per kilogram (mg/kg) or the soluble threshold limit concentration of 5.0 milligrams per liter (mg/L) are defined as hazardous under 40 CFR §261 and applicable state regulations. If a waste is classified as hazardous, disposal must take place in accordance with USEPA and State of Texas hazardous waste rules. OSHA has established a general industry airborne permissible exposure limit (PEL) standard of 50 micrograms per cubic meter (µg/m³) for factory workers and a more lenient 200 µg/m³ for construction workers. In 1973, the Consumer Product Safety Commission (CPSC) established a maximum lead content in paint of 0.5 percent by weight in a dry film of paint newly applied. In 1978, the CPSC lowered the allowable lead level in paint to 0.06 percent. In September 1989, the USEPA established a cleanup criterion for lead in soil of 500 to 1,000 ppm total lead when the possibility of child contact exists. Currently, the USEPA has specific guidelines for the cleanup of lead in soils based on the characteristics of individual sites. To ensure any threat to human health and the environment from LBP, the Residential Lead-Based Paint Hazard Reduction Act (Title X), effective January 1, 1995, requires that a LBP survey of high-priority facilities be conducted. High priority facilities consist of facilities or portions of facilities frequented by children under the age of seven, including military family housing, transient lodging facilities, day care centers, elementary schools, and playgrounds. The TSCA Title IV, “Lead Exposure Reduction,” directs Federal agencies to “conduct a comprehensive program to promote safe, effective, and affordable monitoring, detection, and abatement of LBP and other lead exposure hazards.” Further, any Federal agency having jurisdiction over a property or facility must comply with all Federal, State, and local requirements concerning LBP.

3.4.1 Affected Environment

Due to the age of the eight (8) houses proposed for demolition (built 1962 to 1970), ACM and LBP surveys were conducted at each house. The detailed results are included in Appendix E and a summary of the survey results is provided in the following paragraphs.

In June 2013, bulk samples of suspect ACM were collected from each of the eight (8) houses proposed for demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the TDSHS to conduct asbestos analysis. The sampling identified a substantial amount of ACM (as defined by NESHAP 40 CFR 61, Subpart M) at a variety of locations throughout each of the eight (8) homes (see Appendix E for locations, asbestos content, and approximate quantities). Specific materials included:

- Gypsum board ceilings, texture, and joint compound
- Gypsum board walls, texture, and joint compound
- CMU block filler
- Vinyl tile/sheet flooring black mastic
- Ceramic tile grout, mortar, and bed
- HVAC sealant
- Exterior stucco

During the same time period, readily accessible painted and/or finished components inside and outside each of the eight (8) houses were evaluated for LBP in accordance with HUD Guidelines Chapter 7 and applicable Federal, state, and local regulations. The evaluation resulted in the identification of LBP at four (4) of the houses:

- C-102, built 1962
- C-104, built 1962
- C-106, built 1962
- L-101, built 1965

LBP was generally found on the interior of the houses at windowsills and on the walls and ceilings. Unit L-101 was the only house where LBP was detected on an exterior surface (wood fascia). Details regarding the surveys and results can be found in Appendix E.

3.4.2 Environmental Consequences

3.4.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant impacts as a result of ACM or LBP. Under the No Action Alternative, the eight (8) CBP-owned housing units would not be demolished. There would be no potential to disturb existing ACM or LBP, and therefore no potential for impacts.

3.4.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant impact as a result of existing ACM or LBP. As mentioned earlier in Section 3.4.1, surveys conducted at all eight (8) houses resulted in the identification of substantial amounts of ACM throughout each house and LBP at four (4) of the houses (C-102, C-104, C-106, and L-101). The majority of the identified LBP is on surfaces identified as also being ACM (LBP over Gypsum board, texture, and joint compound). As outlined in Section 2.4.1, prior to demolition activities, all ACM and LBP would be removed and disposed of in accordance with NESHAP and other pertinent Federal, state, and/or local regulations. As a result, no significant impacts would be anticipated.

3.5 WILDLIFE, PROTECTED SPECIES/CRITICAL HABITATS, AND MIGRATORY BIRDS

Biological resources play an integral role in the natural environment. The CEQ (1993) recognizes that biological resources, and from them biodiversity, are "...not a series of unconnected elements, and that the richness of the mix of elements and the connections between those elements are what sustains the system as a whole." The ESA of 1973 (PL 93-205), as amended, was enacted to provide a program of preservation for endangered and/or threatened species and to provide protection for ecosystems upon which these species depend for their survival. The USFWS is responsible for implementing the ESA within the U.S. and its territories. In Texas, animal or plant species of conservation concern may be listed as threatened or endangered under the authority of State law and/or the ESA. A species may be listed as State threatened or endangered and not Federally listed. The State list deals only with the status of the species within Texas. The USFWS and the TPWD both maintain protected species lists (endangered, threatened, proposed candidate, or species of concern) for species that occur or could potentially occur within Starr County.

The MBTA established Federal Responsibilities for the protection of nearly all species of birds, their eggs, and nests. The MBTA made it illegal for people to "take" migratory birds, their eggs, feathers, or nests. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. A take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof. The Bald and Golden Eagle Protection Act of 1940 affords additional protection to all bald and golden eagles.

3.5.1 Affected Environment

In an effort to define the affected environment, a literature review was conducted in June 2013 to determine the potential for the occurrence of Federally- and State-protected species at the locations of the eight (8) houses

proposed for demolition. A biological field reconnaissance was also conducted during the same time period. The results of these investigations are provided in the following paragraphs. Details can be found in Appendix F.

The eight (8) houses are located in the Southern Texas Plains ecoregion (Level III) and the Texas-Tamaulipan Thornscrub (Level IV) subregion. This ecoregion is considered to be a diverse ecoregion located where the eastern Chihuahuan Desert, Tamaulipan thornscrub and subtropical woodlands along the Rio Grande intersect with the western edge of the coastal grasslands. This area is commonly referred to as the “brush country” due to 300 years of fire suppression, grazing, and drought, which have decreased the grass coverage and increased the brush coverage of the land. Soils are varied: highly alkaline to slightly acidic, composed of sands, clays and/or clay loams. Caliche and gravel ridges are common. Rainfall peaks in both spring and fall and is erratic. Droughts are common. Vegetation is therefore mostly drought tolerant species with small leaves, and thorny.

The Falcon Village area is situated on a topographic high, sloping to the west, south and east to the Falcon Dam Reservoir and the Rio Grande. The National Resource Conservation Service (NRCS) classifies the soils in the area as rangeland. Locally, three (3) soil series are mapped at and near the properties: the Catarina Series, Zapata Series, Copita Series – all rated non-hydric. The eight (8) houses are situated entirely on the Copita Series. The Copita Series is rated “not limited” for burrowing mammals and reptiles, meaning these soils are suitable habitat for burrowers. Many burrows were observed on the site, evidence of the suitability of the soils for burrowing.

3.5.1.1 Flora

The vegetation at each of the eight (8) lots is ornamental in nature and consists of grasses, weeds, shrubbery, herbs, vines, and trees. The most common grasses present are buffelgrass (*Chenchrus ciliaris*), Bermuda grass (*Cynodon dactylon*), Caucasian bluestem (*Bothriochloa bladhii*), Wright’s beardgrass (*Bothriochloa wrightii*) and bulb panicgrass (*Zuloagaea bulbosa* a.k.a. *Panicum bulbosum*). Shrubs include white thorn acacia (*Acacia constricta*) and lotebush (*Zizyphus obtusifolia*). Several vine species include old man’s beard (*Clematis drummondii*) and morning glory (*Ipomoea* species). Herbs present include silverleaf nightshade (*Solanum eleagnifolium*), common ragweed (*Ambrosia artemisiifolia*), sunflowers (*Helianthus sp.*), common purslane (*Portulaca oleracea*), violet ruellia (*Ruellia nudiflora*), damianata (*Chrysactinia mexicana*), and sensitive plant (*Mimosa strigillosa*). Sugarberry trees (*Celtis laevigata*) are by far the dominant tree species present throughout the area. Honey mesquite (*Prosopis glandulosa*), Texas ebony (*Ebenopsis ebano*), palm (Arecaceae family), crapemyrtle (*Lagerstroemia indica*), mimosa (*Albizia julibrissin*) and arborvitae (*Thuja occidentalis*) can also be found dispersed throughout the area.

3.5.1.2 Fauna

Cave swallows (*Petrochelidon fulva*), a scissor-tailed flycatcher (*Tyrannus forficatus*), mockingbirds (*Mimus polyglottos*) and red-bellied woodpeckers (*Melanerpes carolinus*) were all present during the site visit. In addition, two types of nests were present on the eaves and carports of seven (7) of the eight (8) houses – cave swallow (*Petrochelidon fulva*) and oriole (*Icterus* species). Cave swallow nests were present on houses L-101, C-102, C-104, C-106, and I-407. Oriole nests were seen hanging from carport lights at houses I-405 and I-407 (see Appendix F). Both cave swallows and orioles are protected under the MBTA. All nests have been removed by personnel qualified to do such removal. Also observed during the site visit were raccoons (*Procyon lotor*) and an eastern fence lizard (*Sceloporus undulatus*). Dead animals were present inside several of the houses, including a gray squirrel (*Sciurus carolinensis*), a mouse (family Muridae), an unidentified lizard, and a red-bellied woodpecker (*Melanerpes carolinus*). Dead insects were also present inside the houses: American cockroaches (*Periplaneta americana*), crickets (2 different species, both family Gryllidae) and tarantulas (genus *Aphonopelma*), among others. Scat and feather piles were also observed in the houses – evidence possibly of a cat (or cats). Outside the houses, dead snails (2 species, bleached shells observed, class-Gastropoda), fire ants (*Solenopsis invicta*), tarantulas (genus *Aphonopelma*), jumping spiders (family Salticidae), termite tubes (order Isoptera, now epifamily Termitoidae), beetles (order Coleoptera), red harvester ants (*Pogonomyrmex barbatus*), sulphur butterflies (sub-family Coliadinae), giant swallowtails (*Papilio cresphontes*), black witch moths (*Ascalapha odorata*) and antlions (family Myrmeleontidae) were observed. In addition, both paper wasp (genus *Polistes*) and mud dauber wasp (*Sceliphron caementarium*) nests were observed on the houses.

3.5.1.3 Listed Species

According to the USFWS and TPWD, there are 36 species protected under the ESA that occur or potentially occur in Starr County. As such, these species could be present at the any of the eight (8) houses if there were habitat and/or a food source. None of the 36 listed species were observed at any of the properties during the site visit. Table 3-10 below lists the state and Federally protected species for Starr County.

Table 3-10. State and Federally Listed Species Occurring or Potentially Occurring in Starr County, Texas.

Common Name (Scientific Name)	Federal Status	State Status	General Habitat Description	Habitat Potentially Present?	Known Occurrence?
Amphibians					
Black-spotted Newt (<i>Notophthalmus meridionalis</i>)	-	T	Arroyos, canals, ditches, shallow depressions; aestivates in the ground during dry periods	No	None. No suitable habitat within site.
Mexican Burrowing Toad (<i>Rhinophrynus dorsalis</i>)	-	T	Roadside ditches, temporary ponds, arroyos, loose friable soils for burrowing; generally underground	No	None. No suitable habitat within site.
Mexican Treefrog (<i>Smilisca baudinii</i>)	-	T	Subtropical region of extreme southern Texas, eggs laid in temporary rain pools; Riparian, herbaceous wetland, hardwood forest, savanna, suburban; can burrow in soil, also fallen logs and standing snags	No	None. No suitable habitat within site.
Sheep Frog (<i>Hypopachus variolosus</i>)	-	T	Grassland and savanna; moist sites in arid areas	No	None. No suitable habitat within site.
South Texas Siren (large form) (<i>Siren sp 1</i>)	-	T	Arroyos, canals, ditches, shallow depressions; aestivates in the ground during dry periods	No	None. No suitable habitat within site.
White-lipped Frog (<i>Leptodactylus fragilis</i>)	-	T	Grasslands, cultivated fields, roadside ditches, wide variety of other habitats; under rocks, in burrows, under clumps of grass	No	None. No suitable habitat within site.
Birds					
American Peregrine Falcon (<i>Falco peregrinus anatum</i>)	DL	T	Cliffs, outcrops, usually within the vicinity of a water feature	No	None. No suitable habitat within site.
Cactus Ferruginous Pygmy-Owl (<i>Glaucidium brasilianum cactorum</i>)	-	T	Riparian trees, brush, palm, and mesquite thickets; day – small caves and recesses on low hills	No	None. No suitable habitat within site.
Common Black Hawk (<i>Buteogallus anthracinus</i>)	-	T	Cottonwood-lined rivers and streams; willow tree groves on the lower Rio Grande floodplain	No	None. No suitable habitat within site.
Gray Hawk (<i>Asturina nitida</i>)	-	T	Riparian woodlands, semi-arid mesquite and scrub grasslands near riparian woodlands	No	None. No suitable habitat within site.
Interior Least Tern (<i>Sterna antillarum athalassos</i>)	LE	E	Riverine sand and gravel bars, beaches	No	None. No suitable habitat within site.
Northern Beardless-Tyrannulet (<i>Camptostoma imberbe</i>)	-	T	Mesquite woodlands; near Rio Grande – cottonwood, willow, elm and great leadtree	No	None. Very poor quality habitat.
Peregrine Falcon (<i>Falco peregrinus</i>)	DL	T	Cliffs, outcrops, usually within the vicinity of a water feature	No	None. No suitable habitat within site.
Rose-throated Becard (<i>Pachyramphus aglaiae</i>)	-	T	Riparian trees, woodlands, open forest, scrub and mangroves	No	None. No suitable habitat within site.

Table 3-10 (continued). State and Federally Listed Species Occurring or Potentially Occurring in Starr County, Texas.

Common Name (Scientific Name)	Federal Status	State Status	General Habitat Description	Habitat Potentially Present?	Known Occurrence?
Birds					
Spragues' Pipit (<i>Anthus spragueii</i>)	C	-	Native upland prairie, coastal grasslands, avoids edges. Migrant, only present mid-September to early April	No	None. No suitable habitat within site.
Tropical Parula (<i>Parula pitiayumi</i>)	-	T	Dense or open woods, undergrowth, brush, and trees along edges of rivers	No	None. No suitable habitat within site.
White-tailed Hawk (<i>Buteo albicaudatus</i>)	-	T	Prairies, mesquite and oak savannas, and mixed savanna-chaparral	No	None observed. potentially present in the area, but unlikely onsite
Wood Stork (<i>Mycteria americana</i>)	-	T	Prairie ponds, flooded pastures or fields, ditches, other shallow standing water, roosts in tall snags	No	None. No suitable habitat within site.
Zone-tailed Hawk (<i>Buteo albonotatus</i>)	-	T	Open arid country to forests, near watercourses	No	None observed; potentially present in the area, but unlikely onsite.
Fish					
Rio Grande Silvery Minnow (<i>Hybognathus amarus</i>)	LE	E	Pools and backwaters of medium to large streams with low or moderate gradient in mud, sand or gravel bottom (extirpated)	No	None. No suitable habitat within site.
Mammals					
Coues' Rice Rat (<i>Oryzomys couesi</i>)	-	T	Cattail-bulrush marsh with shallower zone of aquatic grasses near the shoreline; shade trees near shoreline important	No	None. No suitable habitat within site.
Jaguarundi (<i>Puma yagouaroundi</i>)	LE	E	Thick brushlands, near water	No	None. No suitable habitat within site.
Ocelot (<i>Leopardus pardalis</i>)	LE	E	Dense chaparral thickets, mesquite-thorn scrub and live oak mottes, avoids open areas	No	None. No suitable habitat within site.
White-nosed Coati (<i>Leptonycteris nivalis</i>)	-	T	Woodlands, riparian corridors and canyons, transient in TX	No	None. No suitable habitat within site.
Mollusks					
False Spike Mussel (<i>Quadrula mitchelli</i>)	-	T	Medium to large rivers in substrates varying from mud through mixtures of sand, gravel and cobble; possibly extirpated	No	None. No suitable habitat within site.
Salina Mucket (<i>Potamilus metnecktayi</i>)	-	T	Moving waters, submerged soft sediment (clay, silt) along river bank in Rio Grande basin	No	None. No suitable habitat within site.
Texas Hornshell (<i>Popenaias popeii</i>)	C	T	Both ends of narrow shallow runs over bedrock, in areas where small-grained materials collect in crevices, along river banks, and at the base of boulders; Rio Grande basin	No	None. No suitable habitat within site.

Table 3-10 (continued). State and Federally Listed Species Occurring or Potentially Occurring in Starr County, Texas.

Common Name (Scientific Name)	Federal Status	State Status	General Habitat Description	Habitat Potentially Present?	Known Occurrence?
Reptiles					
Northern Cat-eyed Snake (<i>Leptodeira septentrionalis septentrionalis</i>)	-	T	Thorn-brush woodland, dense thickets bordering ponds and streams, semi-arboreal	No	None. No suitable habitat within site.
Reticulate Collared Lizard (<i>Crotaphytus reticulatus</i>)	-	T	Open brush-grasslands; thorn-scrub vegetation, usually on well-drained rolling terrain of shallow gravel, caliche or sandy soils; scattered flat rocks below escarpments or isolated rock outcrops	No	None. No suitable habitat within site.
Texas Horned Lizard (<i>Phrynosoma cornutum</i>)	-	T	Sparsely vegetated (grass, cactus, scattered brush or scrubby trees) arid to semi-arid regions with soil suitable for burrowing	Yes	None observed. Species likely present in the area.
Texas Indigo Snake (<i>Drymarchon melanurus erebennus</i>)	-	T	Thornbush-chaparral woodlands, dense riparian corridors, lightly vegetated areas not far from permanent water sources, mesquite savannahs, open grasslands, moist micro-habitat (such as burrows for dens), can do well in suburban environment	Yes	None observed. Species potentially present in the area.
Texas Tortoise (<i>Gopherus berlandieri</i>)	-	T	Open brush with grass understory; open grass and bare ground avoided; occupies shallow depressions at base of bush or cactus, sometimes under objects or in burrows	No	None. No suitable habitat within site.
Plants					
Ashy Dogweed (<i>Thymophylla tephroleuca</i>)	LE	E	Grasslands with scattered shrubs, on sands or sandy loams on level or very gently rolling topography over Eocene strata of the Laredo Formation	No	None. No suitable habitat within site.
Johnston's Frankenia (<i>Frankenia johnstonii</i>)	LE-PDL	E	Dwarf shrublands on strongly saline, highly alkaline, calcareous or gypseous, clayey to sandy soils of valley flats or rocky slopes	No	None. No suitable habitat within site.
Star Cactus (<i>Astrophytum asterias</i>)	LE	E	Gravelly clays or loams on gentle slopes and flats in sparsely vegetated openings between shrub thickets within mesquite grasslands or mesquite-blackbrush thorn shrublands. Plants sink into the ground during dry periods.	No	None. No suitable habitat within site.
Walker's Manioc (<i>Manihot walkerae</i>)	LE	E	Periphery of native brush in sandy loam, possibly also on caliche cuestas	No	None. No suitable habitat within site.
Zapata bladderpod (<i>Physaria thamnophila</i>)	LE	E	Open thorn shrublands on shallow, well-drained sandy loams and sandstone outcrops of Eocene origin	No	None. No suitable habitat within site.

Source: TPWD 2013; USFWS 2013

- LE - Federally Listed Endangered
- E - State Listed Endangered
- DL - Federally Delisted
- PDL - Proposed for Delisting
- PT - Federally Proposed Endangered/Threatened
- T - State Listed Threatened
- C - Federal Candidate for Listing
- - Rare, but with No Regulatory Listing Status

Although no Federal or State listed species were observed at any of the eight (8) properties, as demonstrated above in Table 3-10, habitat for the state-threatened Texas horned lizard (*Phrynosoma cornutum*) and Texas indigo snake (*Drymarchon melanurus erebennus*) is present. The Texas horned lizard prefers open arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush, or scrubby trees with soil suitable for burrowing animals. As stated previously, the soils present in the area are “not limited” for burrowing; thus the

area has suitable soils for burrowing. Many burrows (not necessarily inhabited by this lizard) were observed on the date of the site visit. The vegetation is sparse at some locations with bare ground throughout. Red harvester ant colonies (*Pogonomyrmex barbatus*) and red fire ants (*Solenopsis invicta*), which tend to eradicate harvester ant colonies (the Texas horned lizard's preferred prey), were also observed. The abundance of its preferred food source, sparse vegetative cover, and the suitability of the soils for burrows make the area likely habitat for the Texas horned lizard. The preferred habitat of the Texas indigo snake is thornbush-chaparral woodlands, dense riparian corridors, a moist micro-habitat (such as burrows) and suburban environments. Texas indigo snakes have also been known to prefer lightly vegetated areas not far from permanent water sources, mesquite savannahs, and open grassland areas where they often den in burrows left by other animals. The Texas indigo snake will consume almost anything it can overpower and swallow, including mammals, birds, lizards, frogs, turtles, eggs, and even other snakes – including rattlesnakes. The sparsely vegetated nature of the properties and the abundance of burrows make the area potential habitat for the Texas indigo snake.

3.5.2 Environmental Consequences

3.5.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant impacts to wildlife or protected species. Under the No Action Alternative, the eight (8) CBP-owned housing units would remain standing and no ground-disturbing activities would occur. As a result, there would be no potential to impact wildlife or protected species (including those protected by the MBTA) that may currently inhabit the properties.

3.5.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant impacts to wildlife or protected species. As mentioned previously in Section 3.5.1, two types of bird nests were originally present on the eaves and carports of seven (7) of the eight (8) houses – cave swallow (*Petrochelidon fulva*) and oriole (*Icterus* species). Cave swallows were also observed flying in the immediate area. Cave swallow nests were present on houses L-101, C-102, C-104, C-106, and I-407. Oriole nests were seen hanging from carport lights at houses I-405 and I-407. Only house I-403 was observed as being free of nests. Both cave swallows and orioles are protected under the MBTA. As mentioned earlier in Section 2.4.1, all cave swallow and oriole nests have been removed by personnel qualified to do such removal. On-site maintenance personnel would continue to inspect the structures on a bi-weekly basis to ensure that no additional nests become established. As a result of these measures, no impacts to migratory birds would be anticipated.

Also as mentioned in Section 3.5.1, although not observed, there is potential habitat for the Texas horned lizard (*Phrynosoma cornutum*) and Texas indigo snake (*Drymarchon melanurus erebennus*) at the properties. Because of this, prior to activities, all demolition personnel would be instructed on the significance and potential habitat/presence of both species. This would include a site visit, instructional handout materials, pictures, etc. of both species and identification of likely habitat/locations at each of the eight (8) lots. Immediately before demolition commences at each property, a biologist (or other personnel trained/instructed, and/or qualified) would do a walking survey in an effort to make sure neither species is present. If either species is seen or uncovered either prior to, or during demolition, activities would cease and the species would be removed safely (by the qualified personnel) from the property. If any species are seen/encountered, additional care would be taken as demolition activities continue, and based on on-site conditions (presence or absence of either species), activities may be modified in a manner that best allows for the identification and safe removal of either species. This includes potential notification to the USFWS and/or TPWD to obtain additional guidance, methods, and/or procedures. As a result of these measures, no significant impacts to listed species would be anticipated.

A copy of the Limited Biological Investigations Report conducted as part of this effort (see Appendix F), along with CBP's conclusion of no significant impacts, has been forwarded to the TPWD and the USFWS (see Appendix B). The TPWD has concurred with CBP's conclusion of no significant adverse impacts.

3.6 SOCIOECONOMICS

Socioeconomic analyses generally include investigations of the prevailing population, income, employment, and housing conditions of a grouping of individuals, community or city, or an area of interest. The socioeconomic conditions of a ROI could be affected by changes in the rate of population growth, changes in demographic characteristics, or changes in employment within the ROI caused by implementing a proposed action. The socioeconomic condition of individuals, groups, or a community could also be affected by increasing or decreasing revenue sources, like removing potential taxable land from the tax base. These potential effects can become especially noticeable in areas where the prevailing tax base or other source of revenue is already limited.

3.6.1 Affected Environment

The data presented in this section are based on the results of the 2010 U.S. Census, which represented the most current and complete demographic data publicly available at the time of analysis. Starr County Data are also used when appropriate for comparative purposes. Falcon Village lies within U.S. Census Bureau (USCB) Tract 950202 (Figure 3-2). This Tract is comprised of two smaller USCB Block Groups (BGs) – TX4279502021 and TX4279502022. Falcon Village falls entirely within BG 9502021 (Figure 3-3). As such, BG 9502021 is considered to be the ROI for the socioeconomic analysis in this EA, with the larger sampling areas (tract, county, etc.) used for comparative purposes (Table 3-11).

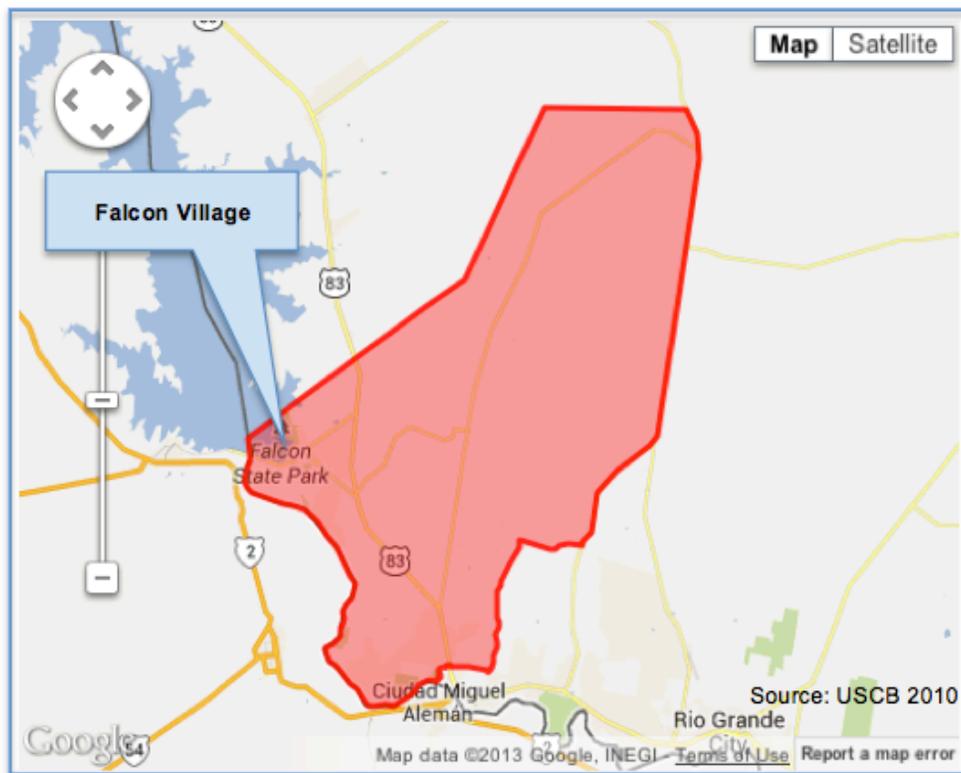


Figure 3-2. USCB Tract 950202.

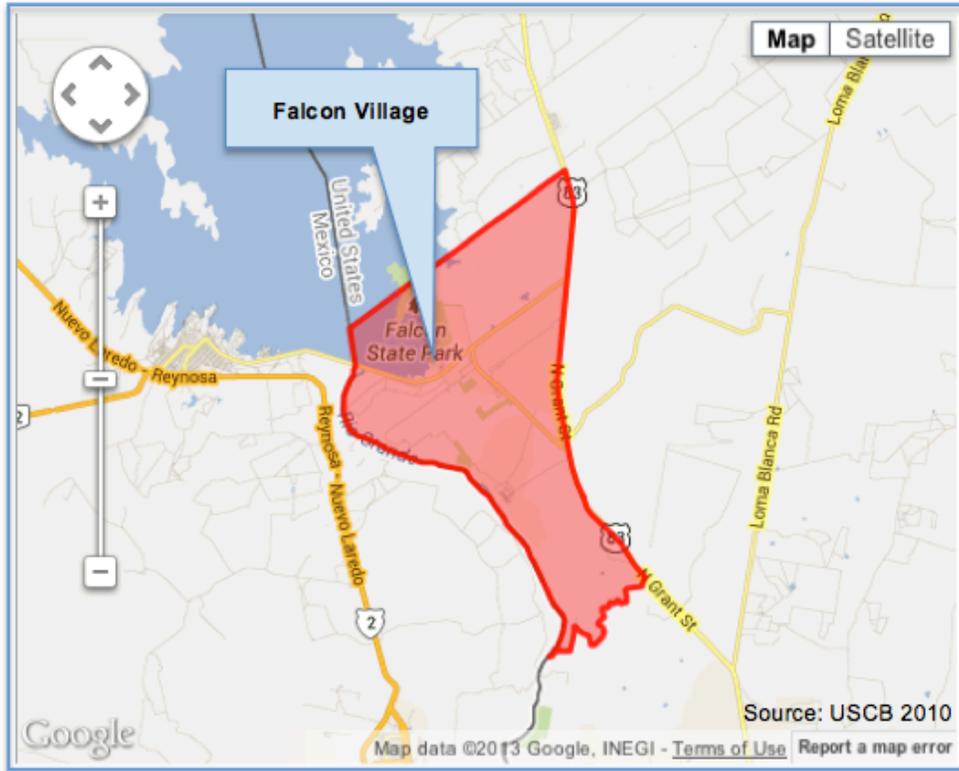


Figure 3-3. USCB BG 9502021.

As demonstrated in the table below, all sampling areas are predominantly minority in nature, each showing numbers greater than 95 percent. Median household income is generally consistent across all three sampling areas, ranging in the mid- to high- \$20,000s. More than 20 percent of the families in each sampling group are in poverty, although none can be considered areas of extreme poverty (40 percent or more in poverty). Employment is generally consistent with the two larger sampling groups showing 90 and 95 percent employment. No employment data is available at a BG level. Housing occupancy rates are also generally consistent across the sampling groups with each showing more than 70 percent occupancy.

Table 3-11. Demographic Data for USCB BG 9502021, Tract 950202, and Starr County.

Data Set	BG 9502021	Tract 950202	Starr County
Population			
Total Population	1,348	2,660	60,968
White	46	0	248
Black	1	1	69
Hispanic	1,282	2,552	58,337
Asian	0	1	133
American Indian	0	0	77
Other	19	106	2,104
Total Minority Population	1,302 (97%)	100%	99%
Is Area Considered a Minority Population? ¹	Yes	Yes	Yes
Population At or under Age 14	345 (26%)	673 (25%)	17,149 (28%)

Table 3-11 (continued). Demographic Data for USCB BG 9502021, Tract 950202, and Starr County.

Data Set	BG 9502021	Tract 950202	Starr County
Employment and Income			
Median Household Income	\$24,950	\$29,625	\$24,441
Families in Poverty	78 (30%)	211 (32%)	4,613 (35%)
<i>Is area considered a poverty area or extreme poverty area?²</i>	<i>Yes – Poverty Area</i>	<i>Yes – Poverty Area</i>	<i>Yes – Poverty Area</i>
Labor Force Employed (civilian)	No Data	95%	90%
Labor Force Unemployed (civilian)	No Data	5%	10%
Housing			
Total Housing Units	562	1,092	19,526
Occupied Housing Units	425 (76%)	813 (74%)	17,001 (87%)
Vacant Housing Units	137 (24%)	279 (26%)	2,525 (13%)

Source: USCB 2010

- 1 - 50 percent of the population or percentage of the area is meaningfully greater than the minority population percentage of the general population (see Section 3.11).
- 2 - Areas with 20 percent or more are considered poverty areas. Areas with 40 percent or more are considered extreme poverty areas (see Section 3.11).

3.6.2 Environmental Consequences

3.6.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant socioeconomic impacts. Under the No Action Alternative, the eight (8) CBP-owned housing units would not be demolished. As a result, there would be no change in the socioeconomic conditions of the area and no significant impacts would occur.

3.6.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant socioeconomic impacts. There would be no expected effect on the existing population of the area, as there would be no new influx or outflow of people. As discussed above, the Falcon Village and immediately surrounding areas are largely minority in nature (greater than 95 percent). Again, because there would be no new influx or outflow of people, the existing racial or ethnic composition of the area would not be expected to change.

Median household income is fairly consistent across the three sample groups, averaging \$26,338 a year. This is considerably below the state and national averages of \$49,646 and \$51,914 a year respectively. All three groups are considered “poverty areas” (a reported 20 percent or more of the families residing in each area are considered to be in poverty). None of the sampling areas are considered “extreme poverty areas.” Although no data was available for employment within BG 9502021, the remaining two sampling areas show civilian employment at 90 percent and above. Based on other data (e.g., household income, poverty, etc.), it is a safe assumption that employment at the BG level would also be consistent with the larger sampling areas. Implementing the Proposed Action would likely result in minor, short-term, employment benefits, however, no new long-term employment opportunities would be expected. As a result, existing income and employment in the area would not be expected to change long-term. A limited short-term economic gain to local/nearby communities could also be realized by construction worker food and beverage sales, hotel accommodations, etc. Additional short-term economic gains could be realized in the form of construction materials purchasing and equipment/vehicle rental.

Housing occupancy is reported as being at, or above, 74 percent for all three sampling areas. This is below the state and national reported levels of 89 percent. As stated above, implementing the Proposed Action would result in no new influx or outflow of people to the area, as a result, there would be no anticipated change in housing demand. Implementing the Proposed Action could result in a minor reduction in the overall number of available houses in the area (8 housing units). However, because the housing units (and lots) are owned by the Federal Government (and were occupied by Federal employees at one time), it is not clear as to whether or not the units were included in the 2010 USCB counts. Either way, a loss of eight units would not noticeably affect the housing characteristics of the area and no impacts would be anticipated.

3.7 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 1994) requires a Federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.” A memorandum from the President concerning EO 12898 stated that Federal agencies should collect and analyze information concerning a project’s effects on minorities or low-income groups, when required by NEPA. If such investigations find that minority or low-income groups experience a disproportionate adverse effect, then avoidance or mitigation measures are to be taken.

According to the CEQ (1997), a minority population can be described as being composed of the following population groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black, not of Hispanic origin, or Hispanic, and exceeding 50 percent of the population in an area or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population. Race and ethnicity are two separate categories of minority populations. A minority population can be defined by race, by ethnicity, or by a combination of the two distinct classifications.

Race as defined by the U.S. Census Bureau (USCB 2001) includes:

- White – A person having origins in any of the original peoples of Europe, the Middle East, or North Africa;
- Black or African American – A person having origins in any of the Black racial groups of Africa;
- American Indian or Alaska Native – A person having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment;
- Asian – A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, or the Philippine Islands; and
- Native Hawaiian and Other Pacific Islanders – A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

The USCB defines ethnicity as either being of Hispanic origin or not being of Hispanic origin. Hispanic origin is defined as “a person of Cuban, Mexican, Puerto Rican, South or Central America, or other Spanish culture or origin regardless of race” (USCB 2001).

A minority population can be defined in multiple ways; for example, a population under consideration may be demographically composed of 45 percent Black, 6 percent Asian, 40 percent White, and 9 percent all other races or combination of races. Additionally, a minority population can also be defined through ethnicity, where the population under consideration is demographically composed of 80 percent White, 10 percent Black, and 10 percent all other races or combination of races, but has an ethnic composition of 98 percent Hispanic origin and 2 percent of the population not of Hispanic origin. Total minority population can also be determined by identifying the White, non-Hispanic portion of the population. Additionally, race and ethnicity can be determined through data that identify all races within Hispanic and non-Hispanic portions.

Each year the USCB defines the national poverty thresholds that are measured in terms of household income dependent upon the number of persons within the household. The USCB poverty threshold in 2010 was \$22,113 for a family group of four with two children under the age of 18. Those falling below this threshold are considered to be low-income. USCB census tracts where at least 20 percent of the residents are considered poor

are known as poverty areas (USCB 1995). When the percentage of residents considered poor is greater than 40 percent, the census tract becomes an extreme poverty area.

3.7.1 Affected Environment

As demonstrated earlier in Section 3.6.1, the three sampling areas comprising Falcon Village are predominantly minority in nature, each showing numbers greater than 95 percent. Additionally, more than 20 percent of the families in each sampling group are considered to be in poverty, although none of the three areas can be considered areas of extreme poverty (40 percent or more in poverty).

EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, states that a growing body of scientific knowledge has demonstrated that children may suffer disproportionately from environmental health risks and safety risks. These risks arise because: children's neurological, immunological, digestive, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults; children's size and weight may diminish their protection from standard safety features; and children's behavior patterns may make them more susceptible to accidents because they are less able to protect themselves. Therefore, to the extent permitted by law and appropriate, and consistent with the agency's mission, Federal agencies shall:

- (1) make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and
- (2) ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

As mentioned earlier in Section 3.6.1 a major portion of the population within each of the three sampling areas are 14 years of age and younger. The breakdown is as follows (Table 3-12):

Table 3-12. Percentage of Population 14 Years of Age and Younger.

Sampling Area	Age Group			Total (%)
	Under 5 Years (%)	5 to 9 Years (%)	10 to 14 Years (%)	
BG 9502021	8	9	9	26
Tract 950202	8	9	8	25
Starr County	9	9	10	28

Source: USCB 2010

3.7.2 Environmental Consequences

3.7.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant impacts to minority or low-income populations, or to children. Under the No Action Alternative, the eight (8) CBP-owned housing units would not be demolished. As a result, there would be no change in the demographics of the area and no significant impacts would occur.

3.7.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant impacts to minority or low-income populations, or to children. As mentioned earlier, the three sampling areas comprising Falcon Village are predominantly minority in nature (greater than 95 percent) and are considered areas of poverty (more than 20 percent of families below the poverty threshold). Additionally, a major portion of the population within each area are 14 years of age and younger (25 to 28 percent of the population). However, as demonstrated throughout earlier sections of this EA, because no significant impacts to the natural and/or man-made or human

environments would be anticipated, no significant impacts (disproportionate or otherwise) would therefore be anticipated to minority and low-income populations or children in the area.

3.8 CULTURAL AND HISTORIC RESOURCES

The NHPA of 1966 (16 USC 470 et seq., as amended), the Archeological and Historic Preservation Act (AHPA) of 1974 (16 USC 469a et seq.), and the ARPA of 1979 (16 USC 470aa-470ll) are designed to ensure adequate consideration of the values of historic properties in carrying out Federal activities and to attempt to identify and mitigate impacts to significant historic properties. The NHPA is the principal authority used to protect historic properties. Federal agencies must determine the effect of their actions on cultural resources and take certain steps to ensure that these resources are located, identified, evaluated, and protected. 36 CFR §800 defines the responsibilities of the state, the Federal Government, and the ACHP in protecting historic properties identified in a project area. Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the ACHP a reasonable opportunity to comment. 36 CFR §60 establishes the NRHP and defines the criteria for evaluating eligibility of cultural resources for listing on the NRHP. The ARPA of 1979 protects archeological resources on Federal lands. Unauthorized excavation, removal, damage, alteration, or defacement of archeological resources on public lands is prohibited. In this EA, historic properties refer to properties eligible or potentially eligible for inclusion in the NRHP.

Legal mandates pertaining to Native American cultural resources and religious freedom include the NHPA, NAGPRA of 1990 (25 USC 3001 et seq., 43 CFR 10), NEPA, ARPA, American Indian Religious Freedom Act (AIRFA) of 1978, as amended (42 USC 1996-1996a), and EO 13007 (Indian Sacred Sites, May 1996).

Cultural resources are nonrenewable resources whose value may be diminished by physical disturbances. These resources include buildings, structures, objects, landscapes, and archeological sites, as well as places of importance to a culture or community for reasons of history, religion, or science. The archeological sites may include both prehistoric and historic sites, e.g., campsites, resource use or acquisition areas, house sites, and trash deposits that may exist. An impact would be significant to cultural and/or archeological resources if activities result in:

- physical destruction of or damage to all or part of the property;
- alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material reduction, and provision of handicapped access, that is not consistent with the Secretary of the Interior's standards for the treatment of historic properties (36 CFR §68) and applicable guidelines;
- removal of the property from its historic location;
- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

3.8.1 Affected Environment

During World War II, diplomats and water engineers from the U.S. and Mexico signed the Water Treaty of 1944. The two nations agreed to an equitable division of irrigation and domestic water on shared rivers including the Rio Grande through Texas and the Mexican State of Tamaulipas. Soon after the war, engineers and geologists of the joint-nations International Boundary and Water Commission explored potential dam sites along the Rio Grande that would maximize the 1944 Treaty's call for (1) silt control, (2) water storage for irrigation, (3) flood control, (4) hydroelectric power, and (5) recreation. The result was the International Falcon Dam and Reservoir. The facility (hereafter referred to as the Falcon Project as a whole, or as Falcon Dam, Falcon Reservoir, and Falcon Village when referencing individual elements) was finished in 1954 and survives today very much as it was built, and continues to perform its originally intended functions (IBWC 2011). Falcon Dam and its associated infrastructure are located at the end of Farm-to-Market (FM) Road 2098 and includes the dam, powerhouse, filtration plant, and associated drainage, landscape, and circulation roads. Falcon Village is directly north of the intersection of FM Road 2098 and Reservoir Road and includes the IBWC administrative offices, weather station, warehouse, and housing village.

In an effort to provide for effective management of the cultural resources at the Falcon Project, the IBWC has developed a Cultural Resources Management Plan (CRMP) (IBWC 2007). As of 2003, most of the reservoir area had been inventoried for archaeological resources. However, elements of the built environment, many now well beyond 50 years of age, had not been evaluated. In an effort to remedy this situation, in April 2011 the IBWC conducted a Historic Resources Survey of the area, which includes the eight (8) houses that are the subject of this EA (IBWC 2011). A summary of both reports is included in the following sections. A brief prehistoric and historic context is also provided below. The Abstract/Executive Summary for each report is included in Appendix G. The entire reports are on file with the IBWC.

According to 36 CFR Part 800 (Protection of Historic Properties), an Area of Potential Effects (APE) is the geographic area or areas within which a Proposed Action may directly or indirectly cause alterations in the character or use of cultural and/or historic resources. An APE can be influenced by the scale and nature of a Proposed Action and may be different for different kinds of effects caused by the Proposed Action. For this Proposed Action, an APE has been defined for potential effects (or impacts) to both archaeological resources and for historic architectural resources. Due to the localized nature of potential impacts, the APE for archaeological resources has been defined as the eight (8) lots where the houses proposed for demolition are located. Because four (4) of the houses are considered to be contributing elements to the NRHP-recommended Falcon Dam and Falcon Village Historic District, any potential impacts could affect the whole District. As such, the APE for historic architectural resources is considered to be the entire District.

3.8.1.1 Prehistoric Context

Evidence of prehistoric human settlements litter the area around Falcon Dam and many of these sites are now under the waters of the Falcon Reservoir. This evidence is representative of settlement patterns ranging through the three period or divisions of prehistory: Paleoindian (ca. 9200-6000 B.C.); Archaic (ca. 6000 to A.D. 800); and Late Prehistoric (ac. A.D. 800-1600). These three periods represent broad patterns of human settlement and human interaction with the Rio Grande. While technology, subsistence patterns, and human density in the area slowly evolved over time, areas of temporary settlement roughly stayed the same. The Rio Grande and its tributaries created a series of alluvial landforms and terraces that provided excellent camp locations for small bands of hunter-gathers to make use of the river, the riparian landscape, and the grasslands beyond. The highest concentration of prehistoric archaeological evidence is generally located high above the Rio Grande channel along confluence points between tributaries and the river (IBWC 2011).

Paleoindian-period settlements most likely consisted of low-density bands of humans with fairly diverse subsistence strategies involving not only large herbivores but also smaller animals, reptiles, and fish. Archaeological evidence from the Early Archaic period also points to similar diverse hunting and gathering strategies including large and small animals, mussels, and fish. While the Paleoindian and Early Archaic periods are not well represented in and around the Falcon Dam area, archaeological evidence from the Middle to Late Archaic and Late Prehistoric periods is much more abundant. During these periods, populations grew and

technology evolved. Evidence of open camps with hearths, burned earth, lithic debris, and fire-cracked rock are more common. Isolated burials and a possible communal cemetery have also been found (IBWC 2011).

3.8.1.2 Historic Context

The Spanish first encountered native American settlements in the early 1500s. Reports stated that native Americans were living in small and often temporary camps on the terraces of the Rio Grande, just as their ancestors had in years past. Subsistence patterns were also reported to be similar, consisting of small groups, likely kin-based, that lived on hunting, fishing, and gathering practices. These patterns slowly began to erode as an influx of Spanish explorers, settlers, and missionaries displaced, enslaved, and altered indigenous populations throughout the next centuries (IBWC 2011).

New Spain and Nuevo Santander

As Spain pushed to explore lands to the north and establish new territories, the region of the lower Rio Grande Valley was one of the last settled. The landscape, then known as the Seno Mexicano, was rugged, semi-arid, choked with river plain thickets, and lacking the precious metals and resources that inspired and pushed Spanish exploration. The area was also filled with wary and often aggressive Native Americans who frequently raided newly-formed settlements. The harsh environment kept the Spanish relatively at bay for approximately 200 years, as the Seno Mexicano did not become an official province until it was surveyed by José de Escandón in 1746. Escandón was a colonel in the Spanish army and a skilled explorer, naming the new Spanish province Nuevo Santander after his home province in Spain. He successfully surveyed the new province in a short three months, allowing several thousand military-escorted settlers to set up homes and small communities in 13 new town sites starting in 1748. Escandón's new town sites were chosen strategically along the Rio Grande and Rio Nueces with the hope that each would rely heavily upon irrigation, agriculture, and ranching for survival. International Falcon Dam and Reservoir, along with the small settlement of Falcon in Zapata County, take their names from Captain Miguel de la Garza Falcón, a reconnoiterer for the Escandón expedition (IBWC 2011).

As was Escandón's plan, the newly-formed communities based their livelihoods on the river and attempted to survive through the practices of irrigation, farming, and ranching. Crop agriculture quickly proved difficult due to economic laws that restricted sale of commodities such as corn at local markets. Because Nuevo Santander was a fairly isolated province, transportation of commodities to other markets proved impossible, leaving settlers with no markets for perishable agricultural goods. The settlers also discovered that the Rio Grande Valley was not open and flat but often steeply terraced. The river also flooded frequently, proving erratic and destructive for farming, and many irrigation projects failed. Fortunately, settlers soon discovered that there was a great demand for livestock in the interior provinces and began to shift their focus primarily to ranching and trading. Reliance on ranching changed the settlement patterns of the area and altered them from the previously settled provinces to the south. Individual houses in Nuevo Santander tended to be spread over broad areas of land, each with river access, differing from other provinces, which clustered houses around a common area (IBWC 2011).

As ranches required more land with the increase of cattle and other livestock, many families drove their livestock across the Rio Grande, gaining land with water access on both sides of the river. These linear strips of land were known as porciones and were defined as having less than 1 mile of riverfront, stretching inland up to 15 miles wide at right angles to the Rio Grande. This ranching life continued on with an influx of new settlers and curious Native Americans. Due to this, small settlements and expanding ranches continued to thrive along the Rio Grande Valley (IBWC 2011).

Mexico and the Republic of Texas

Nuevo Santander became known as the state of Tamaulipas when Mexico declared independence from Spain in 1821. Tamaulipas, meaning high mountains in the language of the local Maratines Indians, retained much of the infrastructure and planning of previous Spanish rule. The main boundaries of the Rio Grande townships and previously allotted porciones remained the same. However, changes occurred on public lands, much of which could be found between the Rio Grande and Rio Nueces. Mexico divided the previously vacant lands and allotted them to prominent soldiers and citizens. This did not pose a problem until Texas declared independence from

Mexico 15 years later in 1836 and claimed the Rio Grande as the international border. Mexico refused to acknowledge the new boundary or Texas' claim for independence for several years and life along the Rio Grande and its ranches did not begin to shift until the Treaty of Guadalupe Hidalgo in 1848 (IBWC 2011).

The United States and Water Policy

The United States annexed the Republic of Texas in 1845 and, in doing so, gained Texas' claim of ownership to the land lying between the Nueces River and the Rio Grande. Disputes over the boundary caused both the United States and Mexico to claim the area with troops, which soon led to the Mexican-American War. The war ended in 1848 with the Treaty of Guadalupe Hidalgo, requiring Mexico to cede approximately one-half of her land in North America to the United States. This included not only the disputed territory between the Nueces River and the Rio Grande, but also California, Arizona, New Mexico, and portions of Utah, Nevada, and Colorado. As control of the region passed into the hands of the United States, few things changed for the ranches along the Rio Grande. Sister cities were established in the small towns that had previously straddled the river. However, the communities remained intact, still mostly populated with descendants of the original land grant families (IBWC 2011).

Differing greatly from the cohesive communities and ranches along the new international border, Mexico and the United States did not share common goals for the Rio Grande Valley. With the Rio Grande basin as part of the new boundary, any shift or change in the constantly fluctuating river would alter the boundary line between the two countries. To further complicate issues, crime increased in the area around the border. American troops and Texas Rangers were called in to extirpate Indian raids and to hunt down outlaws, bandits, and smugglers, often following them deep into Mexico. This did little to help relations between the two nations and diplomatic strain increased on both sides of the river. The first attempt to resolve these issues came in 1874 with the creation of an international commission comprised of the Comisión Pesquisidora de la Frontera del Norte and the United States Commission to Texas to study border issues and recommend solutions. However, friction between Mexico and the United States continued until the establishment of the International Boundary Commission in 1889 (IBWC 2011).

The International Boundary Commission

The International Boundary Commission was originally comprised of both a Mexican and United States section. Each section was controlled by a commissioner appointed by each respective government and staffed primarily with engineers. The International Boundary Commission was initially designed to last only five years but was made permanent in 1900 as both countries realized the ongoing need for such a regulatory body (IBWC 2011).

During the early years of the International Boundary Commission, both sections worked to resolve conflicts and issues regarding water rights, distribution, and shortages due in part to growing populations and a rapid increase in agricultural activities and diversion projects. This included the Treaty of 1906, which dealt with water rights for the portion of the Rio Grande above Fort Quitman, Texas (Figure 3-4). According to the treaty, Mexico would receive 60,000 acre feet of water annually based upon the completion of Elephant Butte Dam in New Mexico. The water was granted to Mexico based on American International Courtesy. This meant that the United States would share its Rio Grande waters out of courtesy with Mexico since the majority of the water came from the United States side above Fort Quitman, while much of the water below that point was fed by Mexican tributaries. This later created issues for the lower part of the Rio Grande Valley as water needs were already exceeding the treaty allotments below Fort Quitman by the time the treaty was in place. These needs put demands on Mexico to reciprocate by allowing equitable distribution of their waters flowing into the Rio Grande (IBWC 2011).

Flooding, Drought, and Farming along the Rio Grande

While the United States and Mexico dealt with larger boundary and water rights issues, the communities of the Rio Grande Valley continued to grow and flourish. Ranching activities continued in the Mexican tradition with branded cattle roaming freely over unfenced porciones. Farming also began to increase as railroads, followed by good roads and cheap fuel, made markets more accessible. Irrigation farming technology was also evolving, allowing for new diversion and pumping systems for the land along the banks of the Rio Grande. However, diversion plans and farming needs did not change or master the unpredictable flow of the Rio Grande, which could fluctuate between flood waters with flows of up to 21 million cubic feet per second to intermittent streams

with almost no flow several times each year. In fact, May 10, 1953 registered a no-flow day on the Rio Grande along with most of the month of June that same year. These swift changes between destructive flood to no flow, along with the pressing needs of farmers and growing communities in the area, pushed Mexico and the United States to consider not only water rights but also the creation of shared storage facilities such as dams and reservoirs (IBWC 2011).

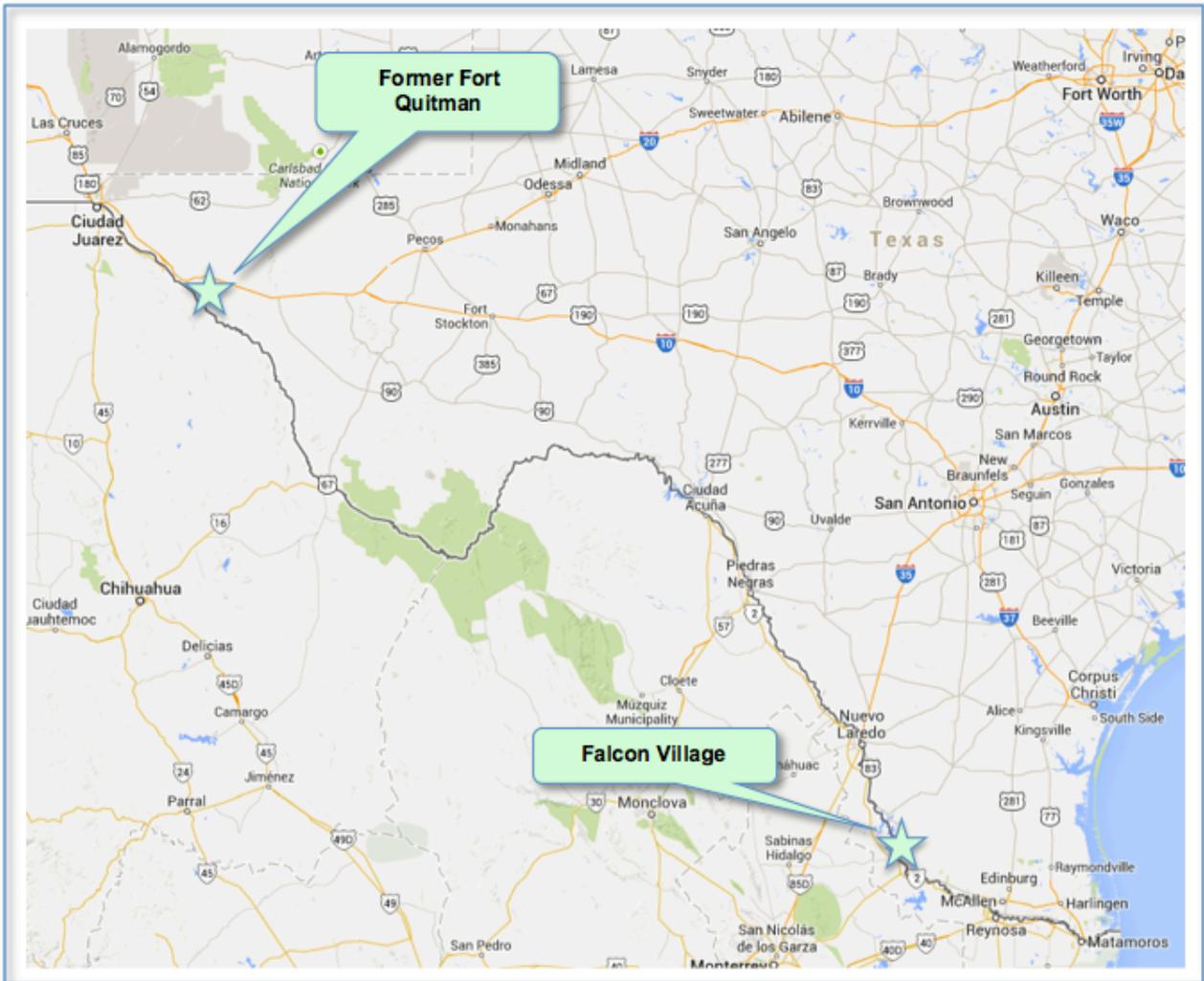


Figure 3-4. Former Location of Fort Quitman Compared to the Location of Falcon Village.

Water Treaty of 1944 and the International Boundary and Water Commission

Mexico and the United States worked diligently over many years to reach compromises regarding both water rights and storage along the Rio Grande and other shared rivers that would revise the Treaty of 1906. Mexico's primary concern was in the Colorado River between Arizona and California, while the United States was concerned with the lower Rio Grande. The first meetings took place in the late 1920s. The initial results were not good and both countries reacted by taking charge of their own infrastructural projects throughout most of the 1930s, resulting in strained relations. World War II pushed Mexico and the United States to reconsider their relationship regarding water rights along with other issues that had long plagued both countries. During a series of meetings that took place from September through November 1943 in El Paso, Texas, and Ciudad Juarez, Mexico, the countries reached an agreement that was signed into law in Washington D.C. on February 3, 1944 (IBWC 2011).

The Water Treaty of 1944 not only made provisions for Rio Grande water use, but also for the western Colorado River, satisfying the needs of both countries. The treaty created laws for water flowing below Fort Quitman, half going to each country. It allowed for the construction and maintenance of three major dams along the bed of the Rio Grande, which would be used to store and regulate water flow. Provisions were also set up for the creation of diversion systems from the Rio Grande for each country. The treaty stated that the lowest dam should be built first which would become the International Falcon Dam and Reservoir (IBWC 2011).

The Water Treaty of 1944 also established the new IBWC that replaced the older International Boundary Commission. The new IBWC, with Mexico and United States sections, would have full control over all projects along the Rio Grande built over the international boundary. Both the Mexican and the United States sections worked closely with respective allied Federal government agencies for consultation and planning: the Comisión Nacional de Irrigación and the United States Bureau of Reclamation, a branch of the Department of the Interior (IBWC 2011).

3.8.1.3 Archaeological Resources

The United States Section, IBWC developed a CRMP in order to provide for effective management of cultural resources at the Falcon Project. The plan summarizes the history and prehistory of the property, discusses past historical and archaeological survey efforts, outlines and assigns responsibilities for the management of cultural resources, and discusses related concerns and standard operating procedures for the Falcon Project as it relates to cultural resources (IBWC 2007).

According to the CRMP, as of 2007, there are 871 known archaeological sites at the Falcon Project, 66 of which have been determined eligible for listing on the NRHP. An additional 91 archaeological sites have been recommended potentially eligible for the NRHP but have not had formal determinations of eligibility made by a Federal agency, nor concurrence by the THC. Therefore, 157 archaeological sites are eligible or potentially eligible for the NRHP. Since most of the archaeological sites recorded at the Falcon Project have not been subject to subsurface investigations, the large majority of sites (579) have an “unknown” or unassigned eligibility, pending further study. A total of 135 sites have been recommended not eligible for inclusion in the NRHP (IBWC 2007). Of the 871 known archaeological sites at the Falcon Project, there are no known sites within the established APE (i.e., the eight [8] properties where the houses proposed for demolition are located). Further information regarding the archaeological sites at the Falcon Project, their NRHP eligibility status, etc. can be found in the CRMP Executive Summary included in Appendix G. The entire report is on file with the IBWC.

3.8.1.4 Historic Architectural Resources

Falcon Project

With growing needs for maintenance and improvements to the built environment, the IBWC initiated its identification and evaluation responsibilities at the Falcon Project under Section 110 of the NHPA. The historic resource survey was conducted in an effort to document, identify, and assess the historic significance of the architectural and engineering resources of the Falcon Dam Reservoir, built between 1950 and 1954. In addition to the dam itself, the scope of the survey focused on the related buildings, structures, objects and landscape of the entire Falcon Dam and Reservoir property including its associated infrastructure and engineered landscape, field office buildings, power plant, water treatment facility, maintenance area, overall layout and circulation systems, and the Falcon Village housing neighborhood (IBWC 2011).

Both Falcon Dam and Falcon Village were identified as an example of a large, significant post-World War II Federal public works project constructed to address the need for water conservation and irrigation, flood control, hydroelectric power generation, and recreation. Due to these factors, the “Falcon Dam and Falcon Village Historic District” was recommended as eligible for NRHP listing as a historic district. The dam and related engineering buildings, structures, objects, and sites are considered excellent survivors of the best of engineering technology of the mid-twentieth century. Falcon Village stands as an excellent example of a mid-twentieth century architecture and planned community, retaining outstanding examples of architect-designed mid-century homes (IBWC 2011).

The survey found 53 buildings, 19 objects, 91 structures, and four archaeological sites for a total of 167 resources within the recommended Falcon Dam and Falcon Village Historic District. Of the 167 resources, 138 (or 83 percent) are contributing and 29 are non-contributing to the potential historic district. The survey also found and documented 13 potentially eligible archaeological sites including foundations (4 total, 3 dated 1954 and 1 dated 1962) and a push pile (dated 1954). The NRHP eligibility of these archaeological sites was not analyzed at the time of the 2011 surveys. None of these sites are within the defined archaeological resources APE for this project. The "Falcon Dam and Falcon Village Historic District" was recommended eligible for the NRHP at the national level under Criterion A in the areas of community planning and development, agriculture, conservation, and entertainment/recreation and Criterion C in the areas of engineering and architecture. The period of significance for the recommended historic district was 1950 to 1965 (IBWC 2011) (Figure 3-5).

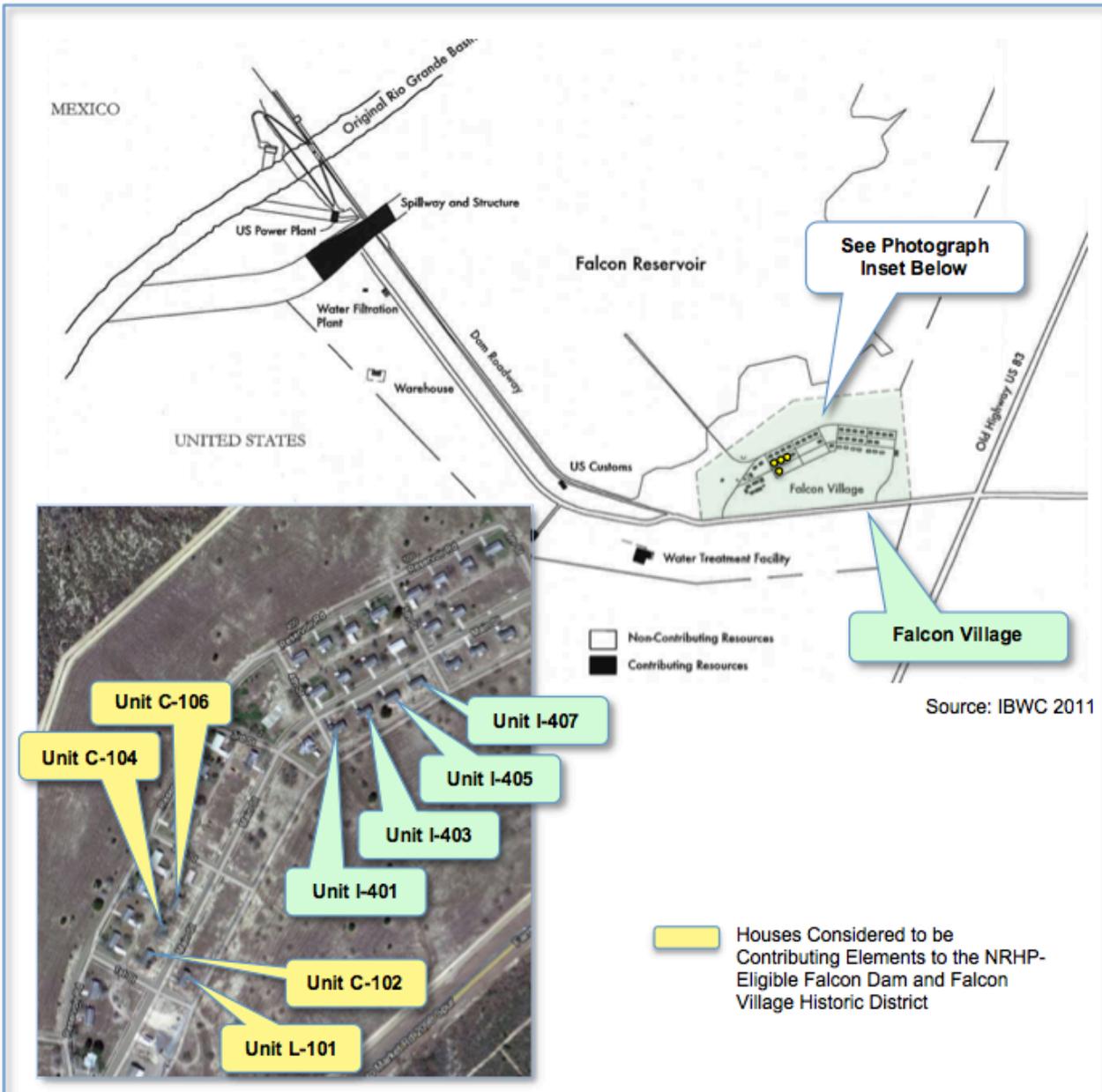


Figure 3-5. NRHP-Eligible Falcon Dam and Falcon Village Historic District and Location of the Houses Proposed for Demolition.

Falcon Village and Housing

Falcon Village is the non-dam infrastructure of the IBWC complex. According to the IBWC Historic Resources Survey (IBWC 2011), construction of Falcon Village began at the same time as the dam and by 1953; the major infrastructure of the predominately residential area was in place. Plans for the Falcon Village houses were developed in 1959 and included design of two, three, and four bedroom plans. Initially 11 two-bedroom houses, 11 three-bedroom houses, and four (4) four-bedroom houses were constructed. Five additional three-bedroom houses were built in 1966. CBP built three-bedroom houses on Block H in 1985 and three of these houses are extant and considered to be non-contributing (IBWC 2011). All of these houses are one-story ranch style residences. Details regarding the eight (8) houses proposed for demolition are as follows (Table 3-13):

Table 3-13. Details and Historical Contributing Status of the Eight (8) Houses Proposed for Demolition.

Unit Number	Year Built	Address	Floor Plan	Resource Status ¹
C-102	1962	C-102 Main Street	3-Bedroom	Contributing
C-104	1962	C-104 Main Street	3-Bedroom	Contributing
C-106	1962	C-106 Main Street	3-Bedroom	Contributing
L-101	1965	L-101 Main Street	3-Bedroom	Contributing
I-401	1970	I-401 Main Street	3-Bedroom	Non-Contributing
I-403	1970	I-403 Main Street	3-Bedroom	Non-Contributing
I-405	1970	I-405 Main Street	3-Bedroom	Non-Contributing
I-407	1970	I-407 Main Street	3-Bedroom	Non-Contributing

Source: IBWC 2011

1 - Refers to whether or not the resource (housing unit) is considered to be a contributing or non-contributing element of the NRHP-recommended Falcon Dam and Falcon Village Historic District (see report on file with the IBWC for more details).

As shown in the table above, of the eight (8) houses proposed for demolition, units C-102, C-104, C-106, and L-101 are all considered to be contributing elements to the NRHP-recommended Falcon Dam and Falcon Village Historic District. They are considered to add to the historical integrity and character of the District.

3.8.1.5 Native American Resources

A number of archaeological sites located at the Falcon Project include Native American burials. There may also be unmarked Native American burial grounds that have yet to be identified (IBWC 2007). None of these Native American burials are known to occur at any of the eight (8) properties where the houses proposed for demolition are located. There has been no formal ethnohistorical study to identify possible Native American tribes or groups who once inhabited the area now covered by Falcon Reservoir, or to initiate the identification of areas of concern for local tribes. However, CBP has identified the following Native American Tribes as potentially having an interest in the area:

- Comanche Nation
- Alabama-Coushatta Tribe
- Tonkawa Tribe of Oklahoma

As such, CBP has sent correspondence to these Tribes regarding the Proposed Action. The letters are included in Appendix B.

3.8.2 Environmental Consequences

3.8.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant impacts to cultural or historic architectural resources. Under the No Action Alternative, the eight (8) CBP-owned housing units, including the four (4) units considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District, would not be demolished. Although not considered significant, there is, however, a potential for a long-term negative impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District if the four (4)

houses considered to be contributing elements were to remain standing. As a result of a lack of maintenance, the houses have deteriorated over time, and a continued lack of maintenance would only further contribute to the status quo – degrading the “value” of the houses as they relate to the overall NRHP-recommended Falcon Dam and Falcon Village Historic District.

3.8.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant impact to archaeological or historic architectural resources. As mentioned previously in Section 3.8.1.3, there are no known archaeological sites at any of the eight (8) properties where the houses proposed for demolition are located. As a result, there would be no impacts to archaeological sites. Also as mentioned earlier, four (4) of the eight (8) houses proposed for demolition are considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District (see Section 3.8.1.4). Implementing the Proposed Action would result in the demolition of these four (4) houses. While demolition of these houses would not be expected to result in a significant impact to the Historic District, an adverse impact would occur.

Section 106 Consultation

Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties. As demonstrated above, CBP has determined that implementing the Proposed Action would result in an adverse impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District, and has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The Texas SHPO was notified of the Proposed Action via letter. A letter was also sent to the Starr County Historical Commission (see Appendix B). The mitigation measures have been documented in a MOA with the Texas SHPO (Appendix G). The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. Upon completion of the mitigation measures, there would be no significant impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District.

As mentioned earlier in Section 3.8.1.5, there are no known Native American resources at any of the eight (8) properties where the houses proposed for demolition are located. As a result, no significant impacts would be anticipated.

3.9 AESTHETICS AND VISUAL RESOURCES

NEPA regulations identify aesthetics as one of the components of the environment to be considered in evaluating the effects of a Proposed Action. In the past, aesthetics and visual resources assessment has generally looked at a proposed project as a self-contained object, apart from its surroundings. More recently, visual resource assessments have considered the visual relationships between a proposed project and specific elements of its surrounding or the aesthetics of the total affected environment. Although all “levels” are important to a quality individual or collective visual experience, the second and third levels can be particularly important in areas where broad, open vistas are present, or in areas where individual visual elements compliment or contribute to the overall experience, such in the case of a National park or a historic district.

3.9.1 Affected Environment

As mentioned in the previous Cultural and Historic Resources section, both Falcon Dam and Falcon Village were identified as an example of a large, significant post-World War II Federal public works project constructed to address the need for water conservation and irrigation, flood control, hydroelectric power generation, and recreation. Due to these factors, the “Falcon Dam and Falcon Village Historic District” was recommended eligible for the NRHP at the national level under Criterion A in the areas of community planning and development, agriculture, conservation, and entertainment/recreation and Criterion C in the areas of engineering and architecture. The dam and related engineering buildings, structures, objects, and sites are considered excellent survivors of the best of engineering technology of the mid-twentieth century. Falcon Village stands as an

excellent example of a mid-twentieth century architecture and planned community, retaining outstanding examples of architect-designed mid-century homes (IBWC 2011). Photographs depicting the visual character of the overall Falcon Project area can be found in Appendix G.

Falcon Village was laid out in a wing-like grid with a triangular shaped joint in the center and a tapered end where the administrative offices and maintenance facility are located. There are two main paved thoroughfares, Reservoir Road and Main Street. Secondary avenues named in numerical order from 1st to 6th bisect the main thoroughfares. The blocks between were named A through L in a clockwise manner beginning with the Administration Building. The entrance to Falcon Village is from FM Road 2098 across a cattle guard and barbed wire fence with metal posts. Figure 3-5 presented earlier shows the general layout of the Falcon Project along with contributing resources.

The original landscape planting plan called for turf lawns with multiple trees including native fan and date palms; Rio Grande ash, mesquite, and ebony. Shrubs included pyracantha, yucca, sage, and others. The plan called for tree-lined streetscapes and well planted residential yards. While many of the original trees and shrubs have not survived drought conditions in the area, some ebony, mesquite, and ash can still be seen throughout the complex (IBWC 2011).

As mentioned earlier, the Falcon Village housing is comprised of two-, three-, and four-bedroom houses. The eight (8) houses proposed for demolition are all three-bedroom. The descriptions and visual characteristics that comprise the houses are discussed below.

3.9.1.1 Housing Units C-102, C-104, and C-106 (Built 1962)

Housing units C-102, C-104, and C-106 (all considered contributing elements to the NRHP-eligible historic district) are considered five-by-three bay Ranch style houses with side gabled rectangular plans and small brick planters in front. The front composition is considered an asymmetrical AABCD pattern (i.e., an elevation with two similar architectural elements [AA] then three different elements [BCD]). The first two bays have paired, short 2/2 aluminum sash windows; the second has the front door and planter box; the third has triplet floor-to-ceiling 2/2 aluminum sash windows; and the fourth bay has the open, inset carport. The houses are constructed of concrete masonry unit (CMU) blocks and were originally plastered. In the mid-1980s they were covered with vinyl siding. One of these houses, C-106, has its original stucco exterior and exposed eaves. The original brick lintels and sills are also visible as well as scars below the windows on the main façade where the original air conditioner was removed. On the vinyl-clad houses, the majority retain their original stucco finish on the carport walls and ceilings. The roof has composition shingles. Some houses have their original side doors and screened door that open to the carport. A passage from the carport leads to the back yard. Most rear yards are enclosed with a 4-foot hurricane fence, some set on concrete curbs. Most rear yards have the original clotheslines (IBWC 2011). Figure 3-6 shows the typical floor plan and elevation (including the bay and pattern designations) for these three-bedroom houses. Figure 3-7 shows a photograph of a typical three-bedroom house of this era (C-106).

3.9.1.2 Housing Unit L-101 (Built 1965)

This house is five-by-five bays with an AABCD pattern with paired 1/1 aluminum sash windows defining the first two bays. The entry door is in the third bay, triplet 1/1 aluminum sash windows in the fourth, and the inset carport with shed roofed canopy in the fifth. The carport has a decorative screen constructed of 2x4s arranged in a geometric pattern. The house is CMU construction with an elongated rectangular sandstone planter (all other planters are brick) beneath the triplet windows. The house is now covered with vinyl siding. There are metal louvers in the peaks of the side gables. There is a unique “tiki” like detail in the side gables where the gabled prow projects slightly – another design characteristic of the late 1960s. This house retains a good deal of integrity and is considered a contributing element to the NRHP-eligible historic district (IBWC 2011).

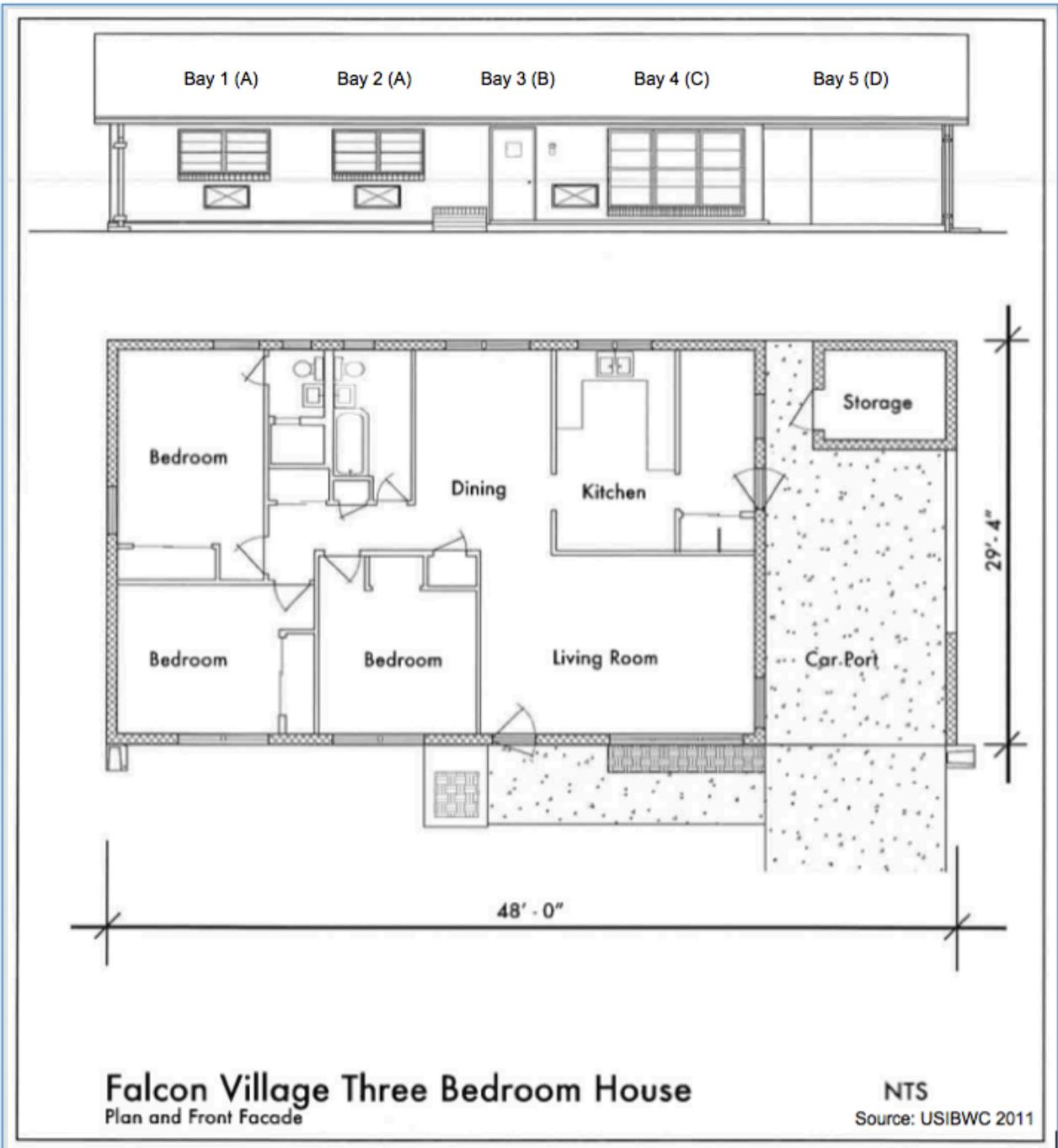


Figure 3-6. Typical Three-Bedroom Floor Plan and Elevation.



Figure 3-7. Typical Three-Bedroom House (Unit C-106, 1962 Construction).

3.9.1.3 Housing Units I-401, I-403, I-405, and I-407 (Built 1970)

These Ranch style houses differ from the houses that are original to Falcon Village. Stylistically they are similar to the 1960 Ranch style houses, yet they differ considerably in construction materials (all of these houses are wood framed) and have significantly more alternations. For these reasons, they are considered non-contributing elements. The houses are five-by-two bays, side gabled with projecting gabled carports. The houses are asymmetrical with an AABCD composition. The first two bays each have shortened 1/1 aluminum-framed windows. This was an alteration from the original taller windows. The central bay has the entry door and sidelight (a later alteration). The fourth bay has triplet 1/1 aluminum framed windows and the fifth bay is the carport with gabled portico. There are two windows on the gabled end of the non-carport elevation. The houses are frame construction and are covered with vinyl siding. The roofs have composition shingles. There were no original doors or screened doors on these four houses (IBWC 2011).

3.9.2 Environmental Consequences

3.9.2.1 No Action Alternative

Implementing the No Action Alternative would result in no significant aesthetic or visual resource impacts. Under the No Action Alternative, the eight (8) CBP-owned housing units, including the four (4) units considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District, would not be demolished. Although not considered significant, there is, however, a potential for a long-term negative impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District if the four (4) houses considered to be contributing elements were to remain standing. As a result of a lack of maintenance, the houses have deteriorated over time, and a continued lack of maintenance would only further contribute to the status quo – degrading the “value” of the houses as they relate to the overall NRHP-recommended Falcon Dam and Falcon Village Historic District.

3.9.2.2 Proposed Action (Demolition of the Eight CBP-Owned Single-Family Housing Units)

Implementing the Proposed Action would be expected to result in no significant impacts to the aesthetics or visual resources of the area. However, although not considered significant, implementing the Proposed Action would be expected to result in an adverse impact to the visual character of the NRHP-recommended Falcon Dam and Falcon Village Historic District. Implementing the Proposed Action would result in the demolition of four (4) houses that are considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District. The overall visual character of the District would be permanently altered. As mentioned earlier, CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The mitigation measures have been documented in a MOA with the Texas SHPO (see Appendix G). The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. Upon completion of the mitigation measures, there would be no significant impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District.

3.10 SUMMARY OF IMPACTS

A summary of the likely impacts associated with implementing both the No Action Alternative and the Proposed Action is provided in the following table (Table 3-14).

Table 3-14. Summary of Likely Impacts Associated with Implementing the Proposed Action and No Action Alternative.

Issue/Resource	No Action Alternative	Proposed Action
Air Quality	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant air quality impacts; however, minor, short-term negative impacts could be expected on a local level, throughout the duration of the demolition activities. Conditions would be expected to return to normal once activities were completed. The temporary impacts would primarily be the result of soil disturbances, razing of the homes, and exhaust emissions from heavy equipment and on-road worker and material/equipment delivery vehicles.
Noise	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant noise impacts; however, a minor, short-term increase in noise could be expected throughout the duration of the demolition activities. Conditions would be expected to return to normal once activities were completed. The temporary impacts would be the result of heavy equipment operation.
Hazardous Materials and Sites	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impact as a result of the use of hazardous materials or chemicals as part of demolition activities or from encountering hazardous materials and/or sites during demolition activities. There appear to be no known hazardous materials sites in the vicinity, and all hazardous materials either used, generated, or disposed of as part of the demolition activities would be done so in accordance with all pertinent Federal, state, and local regulations.
Asbestos and Lead-Based Paint	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impact as a result of existing ACM or LBP. Prior to demolition activities, all ACM and LBP would be removed and disposed of in accordance with NESHAP and other pertinent Federal, state, and/or local regulations.

Table 3-14 (continued). Summary of Likely Impacts Associated with Implementing the Proposed Action and No Action Alternative.

Issue/Resource	No Action Alternative	Proposed Action
Wildlife, Protected Species/Critical Habitats, and Migratory Birds	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impacts to wildlife or protected species. Initially, there were cave swallow and oriole nests at several of the houses proposed for demolition. All cave swallow and oriole nests have since been removed by personnel qualified to do such removal. On-site maintenance personnel would inspect the structures on a bi-weekly basis to ensure that no additional nests become established. All demolition personnel would be instructed on the significance and potential habitat/presence of the Texas horned lizard and Texas indigo snake in the area. Immediately before demolition commences at each property, a biologist (or other personnel trained/instructed, and/or qualified) would do a walking survey in an effort to make sure neither species is present. If either species is seen or uncovered either prior to, or during demolition, activities would cease and the species would be removed safely from the property. If any species are seen/encountered, additional care would be taken as demolition activities continue, and based on on-site conditions (presence or absence of either species), activities may be modified in a manner that best allows for the identification and safe removal of either species.
Socioeconomics	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant socioeconomic impacts. There would be no expected effect on the existing population, housing, or the existing racial or ethnic composition of the area, as there would be no new influx or outflow of people. Implementing the Proposed Action would result in no new long-term employment opportunities. As a result, existing income and employment in the area would not be expected to change. However, short-term employment gains could be realized as a result of the contracted demolition activities. A limited short-term economic gain to local/nearby communities could also be realized as a result of construction worker food and beverage sales, hotel accommodations, construction materials purchasing, equipment/vehicle rental, etc. Implementing the Proposed Action could result in a minor reduction in the overall number of available houses in the area (8 housing units). However, because the housing units (and lots) are owned by the Federal Government (and were occupied by Federal employees at one time), it is not clear as to whether or not the units were included in the 2010 USCB counts. Either way, a loss of eight units would not noticeably affect the housing characteristics of the area.
Environmental Justice and Protection of Children	Implementing the No Action Alternative would be expected to result in no significant impacts.	Implementing the Proposed Action would be expected to result in no significant impacts to minority or low-income populations, or to children. As demonstrated throughout earlier sections of this EA, because no significant impacts to the natural and/or man-made or human environments would be anticipated, no significant impacts (disproportionate or otherwise) would therefore be anticipated to minority and low-income populations or children in the area.

Table 3-14 (continued). Summary of Likely Impacts Associated with Implementing the Proposed Action and No Action Alternative.

Issue/Resource	No Action Alternative	Proposed Action
Cultural and Historic Resources	Implementing the No Action Alternative would be expected to result in no significant impacts. However, there is a potential for a long-term negative impact to the NRHP-recommended District if the houses remain standing (due to potential deterioration, vandalism, etc.).	Implementing the Proposed Action would be expected to result in no significant impact to archaeological or historic architectural resources (including Native American resources). The 8 houses proposed for demolition are all located within the NRHP-eligible Historic District. Four (4) of the eight (8) houses proposed for demolition are considered to be contributing elements to the District. As such, implementing the Proposed Action would result in an adverse impact to the District. Because of this, CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The mitigation measures have been documented in a MOA with the Texas SHPO. The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. Upon completion of the mitigation measures, there would be no significant impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District.
Aesthetics and Visual Resources	Implementing the No Action Alternative would be expected to result in no significant impacts. However, there is a potential for a long-term negative impact to the NRHP-recommended District if the houses remain standing (due to potential deterioration, vandalism, etc.).	Implementing the Proposed Action would be expected to result in no significant impacts to the aesthetics or visual resources of the area. However, although not considered significant, implementing the Proposed Action would be expected to result in an adverse impact to the visual character of the NRHP-recommended Falcon Dam and Falcon Village Historic District. Implementing the Proposed Action would result in the demolition of four (4) houses that are considered to be contributing elements of the NRHP-recommended Falcon Dam and Falcon Village Historic District. The overall visual character of the District would be permanently altered. CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact. The mitigation measures have been documented in a MOA with the Texas SHPO. The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. Upon completion of the mitigation measures, there would be no significant impact to the NRHP-recommended Falcon Dam and Falcon Village Historic District.

4.0 CUMULATIVE IMPACTS

This section of the EA discusses the likelihood for potential cumulative effects to the environment that could result from the proposed demolition of the eight (8) housing units. CEQ regulations define cumulative effects as:

...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time (40 CFR §1508.7).

As this regulation suggests, the purpose of cumulative effects analysis is to view the impacts of a proposed project within the larger context of past, present, and future activities that are independent of the proposed project but which have, and could likely affect, resources of greatest concern. This approach allows the decision-maker to evaluate the incremental impacts of the proposed project in light of the overall health and abundance of selected resources. The focus of the analysis is on the sustainability of each resource of interest; the discussion, therefore, is generally not limited to the immediate project area but takes into consideration larger areas that represent the base for sustaining the resource.

In a sense, a cumulative effects evaluation first asks two questions: (1) "What is the current condition and trend for a particular resource?" and (2) "What are the expected impacts to the resource from independent foreseeable future actions?" The answers to these questions become the baseline for assessing the effects of the proposed project; that is, this baseline is the predicted condition of each resource independent of the proposed project (i.e., in essence, the baseline reflects what would happen to a resource if the No Action alternative were ultimately selected). The net result of the evaluation may be that a seemingly minor incremental impact of a particular proposed project, when viewed in light of other planned projects, may in fact contribute to a significant cumulative impact to a resource that is rare or in poor health; thus, whether an impact is "significant" would depend on the abundance and health of a given resource, as viewed in light of the current condition and trend of the resource. In sum, a significant cumulative effect on the environment means a potentially substantial adverse or beneficial change in any of the physical conditions within the area affected by the project that results from the collective environmental effects of the proposed project and other reasonably foreseeable projects. The evaluation process can be expressed as follows:

Baseline Condition	+	Project Impacts	=	Cumulative Impacts
Historical, Current, and Future Effects		Significant Direct and Indirect		

Cumulative effects analysis is an emerging discipline, and the continuing challenge is to focus on the important cumulative issues, recognizing that a better decision, rather than a perfect cumulative effects analysis, is the goal of NEPA. There is no universally accepted approach to the preparation of cumulative effects analyses, but there are many guidelines available for setting up a methodology that accomplishes the intent of the CEQ regulation. Guidance includes: Considering Cumulative Effects under the National Environmental Policy Act (CEQ 1997); Incorporating Biodiversity Considerations into Environmental Impact Analysis under the National Environmental Policy Act (CEQ 1993); Consideration of Cumulative Impacts in EPA Review of NEPA Documents (USEPA 1999); and Considering Ecological Processes in Environmental Impact Assessments (USEPA 1999).

The analysis of cumulative effects includes the identification of actions with possible effects that would be coincident with those of the proposed project on resources, ecosystems, and human communities. Coincident effects are possible if there is overlap between the geographic and time boundaries for the effects of the proposed action and past, present, and reasonably future actions. In essence, a cumulative effects evaluation examines the baseline condition for a given resource by first identifying the resources and associated study areas, assesses the current health and historical context for each resource, and then describes the anticipated effects of reasonably foreseeable future actions and the proposed project on each resource. For a cumulative effects analysis to be worthwhile it must be limited through scoping to the effects that can be evaluated meaningfully. This important initial step requires the identification of significant cumulative effects issues associated with the proposed project and definition of assessment goals. Guidance from multiple sources stresses that:

"If a project would not cause significant direct or indirect impacts on a resource, it would not contribute to a cumulative impact on the resource."

That is, the cumulative effects analysis should focus only on those resources that are significantly affected by the proposed project, or resources that are currently in poor or declining health or are at risk even if the proposed project impacts are not significant. Similarly, CEQ guidelines recommend narrowing the focus of the cumulative effects analysis to important issues of national, regional, or local significance so as to “count what counts.” As presented earlier in Section 3.0, implementing the Proposed Action would be expected to have no significant impacts on resources in the area. As a result, no cumulative effects would be anticipated.

4.1 HISTORICAL EFFECTS AND CURRENT CONDITION OF RESOURCES

As mentioned earlier, the project area is located along the Rio Grande basin and is quite rural in nature. The area includes lands that have been historically used by prehistoric settlements for hunting and gathering and later by Spanish, Mexican, and American settlers for ranching and agriculture. It was this increased ranching and agricultural use of the area that eventually led to the need for better flood control, irrigation, and water storage – resulting in the construction of the Falcon Project back in the early 1950s. The Falcon Project included construction of Falcon Dam Reservoir and all related infrastructure (including the Falcon Village housing area where the eight [8] units proposed for demolition sit). The resources of the area have been altered dramatically since early settlement - first by conversion of lands to ranching and farming uses, then even further by the construction of the Falcon Project for flood control, irrigation, and water storage. A summary of the historical effects and current condition of the resources considered relevant to the Proposed Action (see Section 3.0) are included below in Table 4-1.

**Table 4-1. Historical Impacts and Current Condition of Resources
in the Immediate Falcon Village Area.**

Issue/Resource	Historical Effects/Impacts	Current Condition ^{1,2}
Air Quality	Likely degraded slightly by development of the area, vehicles, etc.	Good. The Brownsville-Laredo Intrastate AQCR is currently designated by the USEPA as being in “attainment” for all NAAQS criteria pollutants.
Noise	Likely slight increase in ambient conditions over time due to development in the area, vehicles, etc.	Good. The area is rural in nature, no major noise sources. The ambient noise conditions would generally average in the 40 to 50 dB range.
Hazardous Materials and Sites	Likely introduction (although minor) of hazardous materials, chemicals, etc. over time as a result of farming/agriculture, development, roadways, etc.	Good. There are no identified hazardous materials sites, chemical releases, etc. within the immediate area.
Asbestos and Lead-Based Paint	Introduction of ACM and LBP as a result of historical development.	Average. Although ACM and LBP have been identified in the houses, the material is currently being managed in place and is not currently disturbed or friable.
Wildlife, Protected Species/Critical Habitats, and Migratory Birds	Degradation/loss of historical habitat, loss of food sources, etc. due to development and human presence.	Average to Poor. Although some habitat for protected species is present, the majority has been lost by development, introduction of ornamental landscaping, etc.
Socioeconomics	Increase in population, income, employment, and housing in the immediate area due to increased use of the area and associated development.	Average to Poor. Median household income is considerable below the state and national averages and the area is considered to be a “poverty area” (although not an area of “extreme poverty”).
Environmental Justice and Protection of Children	Substantial minority population historically in the area (greater than 95 percent).	Average to Poor. Population is largely considered to be in poverty (more than 20 percent of the families).
Cultural and Historic Resources	Historical occupation, use, and development of the area.	Good to Excellent. Historical occupation, use, and development of the area have resulted in substantial archeological and historic resources that are largely in tact - evidenced by the NRHP-eligible Falcon Dam and Falcon Village Historic District.
Aesthetics and Visual Resources	Historic occupation, use, and development have changed the visual characteristics of the area.	Good to Excellent. Although historic occupation, use, and development have substantially changed the historic visual characteristics of the area, these historic resources (Falcon Dam Reservoir, associated infrastructure [including Falcon Village], etc.) add to the current visual characteristics of the NRHP-eligible Falcon Dam and Falcon Village Historic District.

1 - As it relates specifically to the Project Area/ROI.

2 - Those issues/resources highlighted would likely show the greatest propensity for decline/further decline as a result of the Proposed Action.

4.2 REASONABLY FORESEEABLE PROJECTS IN THE AREA

The IBWC plans to carry out a study (based on funding availability) to evaluate the existing Falcon Village sewage collection system and develop recommendations/options for potential future improvements. IBWC plans to keep Falcon Village operational well into the future with the only other currently planned change being the construction of a new Administration Building for IBWC operations. There are no other known projects or plans (construction, development, or otherwise) for Falcon Village or the immediate surrounding area. With the exception of potential sewage collection system improvements and the new Administration Building, neither the IBWC nor CBP plan any other new infrastructure development/redevelopment in the area, no new training or other mission support activities, and no substantial influx or outflow of personnel to the area. Generalized infrastructure maintenance would occur throughout Falcon Village as it currently does and both the Texas Department of Transportation (TxDOT) and Starr County would also continue road maintenance activities in the area.

4.3 CUMULATIVE EFFECTS

As just stated, the only reasonably foreseeable projects planned for the Falcon Village area in the near future would be potential improvements to the sewage collection system and the planned construction of a new Administration Building. Because Falcon Village is Federally-owned (by IBWC), any future improvements would be required to be implemented in accordance with prevailing environmental, cultural, and other pertinent laws and regulations. Any future sewage collection system improvements would likely take place entirely within the boundaries of the existing building/housing lots and along existing road right-of-ways. These areas have been highly impacted by previous development (i.e., home construction, utility installation, roads, etc.), and as a result, there are no significant natural resources in these areas. Because of this, and the fact that any infrastructure improvements would be made in a manner that places the highest regard on potential impacts and the importance of avoiding and/or mitigating any such impacts, there would be no expected cumulative effects to (or as a result of):

- Air Quality
- Noise
- Hazardous Materials and Sites
- Asbestos and Lead-Based Paint
- Socioeconomics
- Environmental Justice and Protection of Children

Although no cumulative effects would be anticipated to Wildlife, Critical Habitats, or Migratory Birds, there is a potential for cumulative effects to Protected Species. As mentioned earlier in Section 3.5, there is habitat for the state-threatened Texas horned lizard and Texas indigo snake at the eight (8) lots where the houses proposed for demolition are located. This same habitat is present throughout Falcon Village, and as a result, could be impacted by any future ground-disturbing activities that may take place in the area. Additionally, should any sewer system improvements be made in areas that have not been previously disturbed, additional impacts (beyond those potential impacts to the Texas horned lizard and Texas indigo snake) could occur.

Because there is potential habitat for the Texas horned lizard and the Texas indigo snake in the area, there is a potential for cumulative effects as a result of accidental death and/or habitat disturbance/loss. However, any improvements would be implemented in a manner similar to that described earlier in Section 2.4.1, thereby greatly minimizing the potential for impacts. Additionally, there is substantial adequate habitat (and food sources) in nearby areas where any potential impacted species could relocate (or be relocated) on a temporary or permanent basis. Because of this, the potential for cumulative effects to the state-threatened Texas horned lizard and Texas indigo snake are considered to be minimal.

Once the new Administration Building is constructed, the existing building would be demolished. Much like four (4) of the eight (8) houses proposed for demolition as part of this action, the existing Administration Building is considered to be a contributing element to the NRHP-recommended Falcon Dam and Falcon Village Historic District (IBWC 2011). As such, the demolition of the building would result in an adverse impact to the District. When this is combined with the adverse impact that would result from implementing this action, there is a

potential for an adverse cumulative impact. Both actions are subject to the Section 106 process, and as a result, mitigation has been developed in coordination with the Texas SHPO in an effort to minimize the impacts. As part of its planning, IBWC has already prepared a HABS for the planned demolition of the Administration Building (see Appendix G). As mentioned previously, CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact as a result of the demolition of the four (4) contributing houses. The mitigation measures have been documented in a MOA with the Texas SHPO (see Appendix G). The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA. The mitigation implemented by IBWC (for the demolition of the Administration Building) and currently being implemented by CBP (for the proposed demolition of the houses) are designed to minimize the adverse impacts. As a result of these efforts, no significant cumulative impacts to the NRHP-recommended Falcon Dam and Falcon Village Historic District would be anticipated.

5.0 BEST MANAGEMENT PRACTICES

This section of the EA describes those measures that would be implemented as part of the Proposed Action in an effort to minimize or eliminate any potential adverse impacts on the environment. These measures may be supplemented and/or modified (as long as the end result has the same or better effect) based on prevailing site conditions, project phasing, etc. A list of generalized measures is provided in the bulleted text below. Details specific to the resources/issues relevant to the Proposed Action are included in the following sections.

- In accordance with NPDES, TCEQ, and TPDES (any site over one [1] acre or part of a common plan of development greater than one [1] acre), a SWPPP would be developed and implemented for demolition activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the project area through implementation of BMPs such as silt fences, storm inlet filters, etc.
- All nearby and/or adjacent residents would be notified in advance of the planned demolition activities (anticipated days, hours of operation, road closures, detours, utility disruptions, etc.).
- If it becomes necessary to temporarily close adjacent streets or re-route traffic, the contractor would coordinate with the appropriate City and/or County authority, obtain the appropriate permits, and ensure the placement of appropriate barricades, signs, etc.
- The contractor would ensure site safety and security by the installation/placement of temporary fencing around all work sites. The fencing would remain in place until all materials are removed from the site and all holes or excavated areas are filled. All construction staging including parts and/or materials storage/stockpiling and equipment storage would be within the fenced areas. Should safety or security issues arise, they would be addressed immediately with local CBP, GSA, or other designated on-site personnel.
- The contractor would adhere to all Federal, state, and local laws and regulations to ensure the safety of all on-site personnel and to protect the welfare of others (including adjacent property, infrastructure, etc.) in the vicinity of the demolition activities.
- All demolition debris would be recycled or disposed of at an approved landfill in accordance with all applicable Federal, state, and local laws and regulations. The contractor would be required to adhere to all Federal guidelines pertaining to solid waste disposal, including (but not limited to) EO 13514 (Federal Leadership in Environmental, Energy, and Economic Performance) and EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management).

5.1 AIR QUALITY

The demolition contractor would comply with all applicable Federal, state, and/or local air pollution control requirements, including using water or other chemicals (applied daily or as needed to the housing units, debris piles, bare soils, etc.) and covering any open-bodied haul trucks to control dust.

5.2 NOISE

It is not anticipated that equipment noise would be an issue, however, the contractor would be restricted to operating only between the hours of 8:00 am and 5:00 pm Monday through Friday. The contractor would comply with any local (City and/or County) noise pollution ordinances or other restrictions and ensure that all construction equipment used in the demolition is in good repair with appropriate exhaust/muffler systems.

5.3 HAZARDOUS MATERIALS AND SITES

The contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area)

would be limited to routine daily maintenance and repairs. Any hazardous wastes generated during the demolition (including oils, lubricants, fuels, asbestos, lead-based paint, PCB containing materials, mercury, etc.) would be disposed of in accordance with all Federal, state, and local regulations.

5.4 ASBESTOS AND LEAD-BASED PAINT

Prior to demolition, all ACM and LBP would be removed and disposed of in accordance with NESHAP and other pertinent Federal, state, and/or local regulations.

5.5 WILDLIFE, PROTECTED SPECIES/CRITICAL HABITATS, AND MIGRATORY BIRDS

All previously identified cave swallow and oriole nests have been removed by personnel qualified to do such removal. On-site maintenance personnel would continue to inspect the structures on a bi-weekly basis, up until the time of demolition, to ensure that no additional nests become established.

Because there is the potential for the Texas horned lizard and Texas indigo snake to occur in the area, prior to demolition activities, all personnel would be trained/instructed on the importance of these species and the need to ensure protection. This would include a site visit, instructional handout materials, pictures, etc. of both species and identification of likely habitat/locations at each of the eight (8) lots. Immediately before demolition commences at each property, a biologist (or other personnel trained/instructed, and/or qualified) would do a walking survey in an effort to make sure neither species is present. If either species is seen or uncovered either prior to, or during demolition, activities would cease and the species would be removed safely (by the qualified personnel) from the property. If any species are seen/encountered, additional care would be taken as demolition activities continue, and based on on-site conditions (presence or absence of either species), activities may be modified in a manner that best allows for the identification and safe removal of either species. This includes potential notification to the USFWS and/or TPWD to obtain additional guidance, methods, and/or procedures.

5.6 SOCIOECONOMICS

No measures warranted.

5.7 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

No measures warranted.

5.8 CULTURAL AND HISTORIC RESOURCES

CBP conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact resulting from the proposed demolition activities. The mitigation measures have been documented in a MOA with the Texas SHPO (see Appendix G). The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA.

5.9 AESTHETICS AND VISUAL RESOURCES

CBP conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact resulting from the proposed demolition activities. The mitigation measures have been documented in a MOA with the Texas SHPO (see Appendix G). The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA.

6.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section of the EA describes the irreversible and irretrievable commitments of resources associated with implementing the Proposed Action. An “irreversible commitment of resources” occurs when, once committed to the proposed project, the resource would continue to be committed throughout the life of the project. Examples include a commitment of labor, energy, and/or fuel. An “irretrievable commitment of resources” refers to those resources that, once used, consumed, destroyed, or degraded by implementing the Proposed Action, would cause the resource to be unavailable for use by future generations. Examples of irretrievable types of resources include nonrenewable resources, such as minerals and cultural/historic resources, as well as renewable resources that would be unavailable for the use of future generations such as loss of production, harvest, or habitat.

6.1 IRREVERSIBLE COMMITMENT OF RESOURCES

Implementing the Proposed Action would result in an irreversible commitment of resources in the form of the Federal funds spent on the time, labor, and energy/fuel necessary to implement the project.

6.2 IRRETRIEVABLE COMMITMENT OF RESOURCES

Implementing the Proposed Action would result in an irretrievable commitment of resources as a result of the physical loss of historic resources (Housing Units C-102, C-104, C-106, and L-101) and the adverse impact to the NRHP-eligible Falcon Dam and Falcon Village Historic District. As mentioned previously, CBP has conducted Section 106 consultation with the Texas SHPO regarding the likely impacts and mitigation strategies to be implemented in an effort to minimize the impact resulting from the proposed demolition activities. The mitigation measures have been documented in a MOA with the Texas SHPO (see Appendix G). The mitigation measures outlined in the MOA are currently being implemented, and CBP is committed to ensuring the successful completion of all measures stipulated in the MOA.

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8.0 ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing building materials
AHPA	Archeological and Historic Preservation Act
AIRFA	American Indian Religious Freedom Act
AMSD	approximate minimum search distance
AQCRs	Air Quality Control Regions
ARPA	Archaeological Resources Protection Act
ASTM	American Society for Testing Materials
ASTs	aboveground storage tanks
AUL	Listing of Institutional/Engineering Control Registries
BFI	Browning-Ferris Industries
BGs	USCB Block Groups
BMPs	best management practices
C	Federal Candidate for Listing
CAA	Clean Air Act
CBP	U.S. Customs and Border Protection
CEQ	Council on Environmental Quality
CERCLA	Comprehensive, Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	Conditionally Exempt SQG
CFR	Code of Federal Regulations
CO	carbon monoxide
CORRACTS	RCRA Corrective Action Site
CPSC	Consumer Product Safety Commission
CRMP	Cultural Resources Management Plan
dB	decibel
dba	"A" weighted decibels
DHS	U.S. Department of Homeland Security
DL	Federally Delisted
DNL	day-night average sound level
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOL	U.S. Department of Labor
E	State Listed Endangered
EA	environmental assessment
EDR	Environmental Data Resources, Inc.
EISA	Energy Independence and Security Act
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ERNS	Emergency Response Notification System
ESA	Endangered Species Act
FEE	Federal Environmental Executive
FICON	Federal Interagency Committee on Noise
FINDS	Facility Index System/Facility Registry System
FM	Farm-to-Market
FONSI	Finding of No significant Impact
FUDS	Formerly Used Defense Site
HABS	Historic American Buildings Survey
HUD	U.S. Department of Housing and Urban Development
IBWC	International and Boundary Water Commission
kg	kilograms
LBP	lead-based paint
LE	Federally Listed Endangered
L _{max}	A-weighted sound level or maximum sound level

LPOE	Port of Entry
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
mg/cm ²	milligram/square centimeter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MOA	Memorandum of Agreement
NAA	nonattainment areas
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NCA	Noise Control Act
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NO _x	nitrous oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
O ₃	ozone
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	Polychlorinated Biphenyl
PDL	Proposed for Delisting
PEL	permissible exposure limit
PL	Public Law
PM ₁₀	particulate matter measuring less than 10 microns
PM _{2.5}	particulate matter measuring less than 2.5 microns
PT	Federally Proposed Endangered/Threatened
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
ROD	Record of Decision
ROI	region of influence
SARA	Superfund Amendments and Reauthorization Act
SEL	sound exposure level
SER	significant emission rate
sf	square feet
SHPO	State Historic Preservation Officer
SHWS	State Hazardous Waste Sites
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SQG	Small Quantity Generator
SWPPP	Storm Water Pollution Prevention Plan
T	State Listed Threatened
TCEQ	Texas Commission on Environmental Quality
TDSHS	Texas Department of State Health Services
THC	Texas Historical Commission
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TPY	tons per year
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage, and Disposal Facility

USC	United States Code
USCB	U.S. Census Bureau
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USTs	underground storage tanks
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
XRF	X-Ray Fluorescence
µg/m ³	micrograms per cubic meter

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