



FINAL

**ENVIRONMENTAL STEWARDSHIP SUMMARY REPORT
OF THE CONSTRUCTION, OPERATION, AND MAINTENANCE
OF TACTICAL INFRASTRUCTURE
PEDESTRIAN FENCE SEGMENTS M-1 AND M-2A
U.S. Border Patrol Del Rio Sector,
Texas**

**Department of Homeland Security
U.S. Customs and Border Protection
U.S. Border Patrol**



October 2011

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ON THE CONSTRUCTION, OPERATION, AND MAINTENANCE
OF TACTICAL INFRASTRUCTURE
PEDESTRIAN FENCE SEGMENTS M-1 AND M-2A
U.S. BORDER PATROL DEL RIO SECTOR,
TEXAS**

October 2011

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EXECUTIVE SUMMARY

The U.S. Customs and Border Protection (CBP) constructed Tactical Infrastructure (TI) for the U.S. Border Patrol (USBP), Del Rio Sector. TI is a term used by USBP to describe the physical structures that facilitate enforcement activities; these items typically include, but are not limited to, roads, vehicle and pedestrian fences, lights, gates, and boat ramps. TI planned under the Pedestrian Fence 225 (PF-225) Program within the Del Rio Sector consisted of pedestrian fence, concrete retaining walls, patrol and access roads, and lights along the U.S./Mexico international border in two separate segments. The first segment, which is designated as Segment M-1, is located along the Rio Grande, U.S./Mexico international border in Del Rio, Texas. The second segment is designated as Segment M-2A and is located adjacent to the Rio Grande in Eagle Pass, Texas. This Environmental Stewardship Summary Report (ESSR) compares anticipated impacts described and assessed by the original Environmental Stewardship Plan (ESP) to actual impacts after construction occurring in Segments M-1 and M-2A.

A total of 3.1 miles of TI was originally planned for both sections; post-construction surveys determined that 3.1 miles were constructed, although the M-1 segment was decreased by 0.1 mile and the M-2A segment increased by 0.1 mile. These slight differences are expected during construction activities of this type and magnitude.

The purpose of this report is to provide a comprehensive summary of the installation of TI and assess the final design and footprint of the TI. This ESSR will compare the final completed action to the originally planned installation of TI, as proposed in the July 2008, *Final Environmental Stewardship Plan for the Construction, Operation, and Maintenance of Tactical Infrastructure U.S. Border Patrol Del Rio Sector, Texas*. Segments M-1 and M-2A were constructed between July 2008 and August 2009.

Environmental monitors contracted by CBP were present during all construction activities and documented adherence to Best Management Practices (BMPs). Any deviations from the BMPs and required corrections were noted in weekly monitoring reports and on a BMP tracking spreadsheet.

The most common BMPs in the Del Rio Sector for which non-conformance was observed included lack of drip pans or protective ground covering under staged construction vehicles, lack of lids on trash receptacles, and ground surface contamination due to inadequate containment of concrete wash areas. Most BMP non-conformance issues did not require revegetation efforts because little to no native vegetation was removed during the construction activities. No known impacts on federally listed species resulting from non-conformance of BMPs were documented, and there were no predicted or actual impacts on threatened or endangered species or their habitat in the Del Rio Sector.

After the completion of the ESP, changes were made to the alignment, design, or construction methods to facilitate construction, reduce costs or potential impacts, respond to stakeholder requests, or enhance the efficacy of the fence for enforcement purposes. These changes were reviewed and approved through CBP Headquarters, and documented in Change Request (CR) forms. This report also summarizes any significant modifications during construction that resulted in additional or reduced environmental impacts.

The ESSR was prepared to document the impacted area, as compared to the original ESP and the changes identified in the CR forms, for the following reasons:

1. To provide a comparison of the anticipated impacts to the actual impacts so that a final new baseline is established for future maintenance and repair and any potential future actions.
2. To document success of BMPs and any changes/improvements for the future.
3. To document any changes to the planned location or type of the TI.

CBP consultants surveyed the M-1 and M-2A site to inspect the final project corridor and infrastructure footprints. The survey was conducted to document any significant differences between the planned action and completed actions. When changes were noted, the CR forms were consulted to see if the changes were recorded and approved. A total of 27 CRs were approved for the Del Rio Sector; only six of these had the potential to result in environmental impacts.

The results of the post-construction surveys indicated that the length of the M-1 fence was slightly reduced as compared to the original length described in the ESP, decreasing the fence length for M-1 from a planned 2.3 miles to an actual 2.2 miles. No CR was submitted for this change. The staging area for M-1 was proposed to be 0.5 acre and located adjacent to the northern boundary of the proposed impact corridor near the western terminus of the planned TI. However, it was moved to a nearby warehouse region; therefore, no impacts were associated with this staging area, as it was located within a developed, paved commercial lot.

No CRs were authorized for the staging area relocation. In addition, the post-construction surveys indicated that the length of M-2A was slightly increased as compared to the original length described in the ESP, increasing the fence length for M-2A from a planned 0.8 mile to an actual 0.9 mile. No CR was submitted for this change. Two staging areas were proposed and used for M-2A. The staging areas were proposed to total approximately seven acres. However, post-construction surveys determined that a total impact area of 1.5 acres was used as staging areas. The modification-associated impacts are summarized in Table ES-1. As can be seen from this table, the total decrease in impacted area was 7.7 acres, primarily due to a decrease in the planned staging areas.

Table ES-1. Summary of Fence Lengths and Impact Areas by Segment, M-1 and M-2A

Fence Segment	ESP Estimated Length (miles)	Post-Construction Survey Length (miles)	ESP Estimated Impact Area (acres)*	Post-Construction Impact Area (acres)**	Impact Area Difference (acres)
M-1	2.3	2.2	42.3	42.6	0.3
M-2A	0.8	0.9	12.8	4.8	-8.0
Total	3.1	3.1	55.1	47.4	-7.7

* Impact areas for Segment M-1 were estimated using a 150-foot-wide corridor and proposed staging area (0.5 acre); a 60-foot-wide corridor and proposed staging areas (7 acres) were used to estimate the impact areas for Segment M-2A, as defined in the ESP. Staging area impacts were not specifically identified in the ESP but were gleaned from CBP Geographic Information Systems (GIS) Facilities and Infrastructure Tracking Tool (FITT) data files.

** Post-construction impact areas include measured impact corridors and staging areas.

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SECTION 1.0
INTRODUCTION, OUTREACH, AND METHODS



1.0 INTRODUCTION, OUTREACH, AND METHODS

As part of an effort to document the installation of Tactical Infrastructure (TI) completed under the Pedestrian Fence 225 (PF-225) program, this Environmental Stewardship Summary Report (ESSR) presents a compilation of the construction actions. It compares the Planned Action proposed in the July 2008 *Final Environmental Stewardship Plan for the Construction, Operation, and Maintenance of Tactical Infrastructure U.S. Border Patrol Del Rio Sector, Texas* to the final results of the construction project. A Biological Resources Plan (BRP) to identify the presence of sensitive biological resources, particularly federally protected species, and potential impacts on these resources was prepared. The BRP was provided to affected resource agencies and land managers for review. The BRP was appended to the Environmental Stewardship Plan (ESP). The original ESP was made available to the public on the U.S. Customs and Border Protection's (CBP) website, www.borderfenceplanning.com, which has since been changed to http://cbp.gov/xp/cgov/border_security/ti/ti_docs/sector/del_rio/. Information in this ESSR was compiled from approved modifications made during construction, as well as through post-construction surveys of the project corridor. This ESSR compares anticipated impacts described and assessed by the ESP to actual impacts occurring in two segments, designated as M-1 and M-2A (Figure 1-1).

Prior to installing TI, CBP performed an environmental review of the fencing projects and published the results of this analysis in an ESP, including mitigation and Best Management Practices (BMPs) developed to minimize adverse effects on the environment. These ESPs were drafted for each TI segment under the waiver. Some ESPs addressed specific TI segments, while others, such as the ESP for the Del Rio Sector, addressed all of the PF 225 segments planned for the Del Rio Sector in a single document. Professional biologists and archaeologists conducted field surveys of all project corridors during the planning process prior to construction. The results of the surveys were provided to the affected resources agencies (e.g., U.S. Fish and Wildlife Service [USFWS], State Historic Preservation Office) for review and comment. Conservation measures and other BMPs identified in the ESP were made part of the Request for Proposal (RFP) issued to commercial construction contractors and were also incorporated into the contract upon award.

The ESSR was prepared to document the impacted area, as compared to the original ESP and the changes identified in the CR forms, for the following reasons:

1. To provide a comparison of the anticipated impacts to the actual impacts so that a final new baseline is established for future maintenance and repair and any potential future actions.
2. To document success of BMPs and any changes/improvements for the future.
3. To document any changes to the planned location or type of TI.

1.1 PUBLIC AND AGENCY OUTREACH

Prior to developing the ESP, CBP prepared a draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) to address the potential effects of the Planned Action. A Notice of Availability (NOA) for the draft EA and FONSI were published on a public website and the availability of the documents for a 30-day public comment period was announced. In addition, a public meeting for the draft EA and FONSI was conducted in Del Rio, Texas, on January 24, 2008.

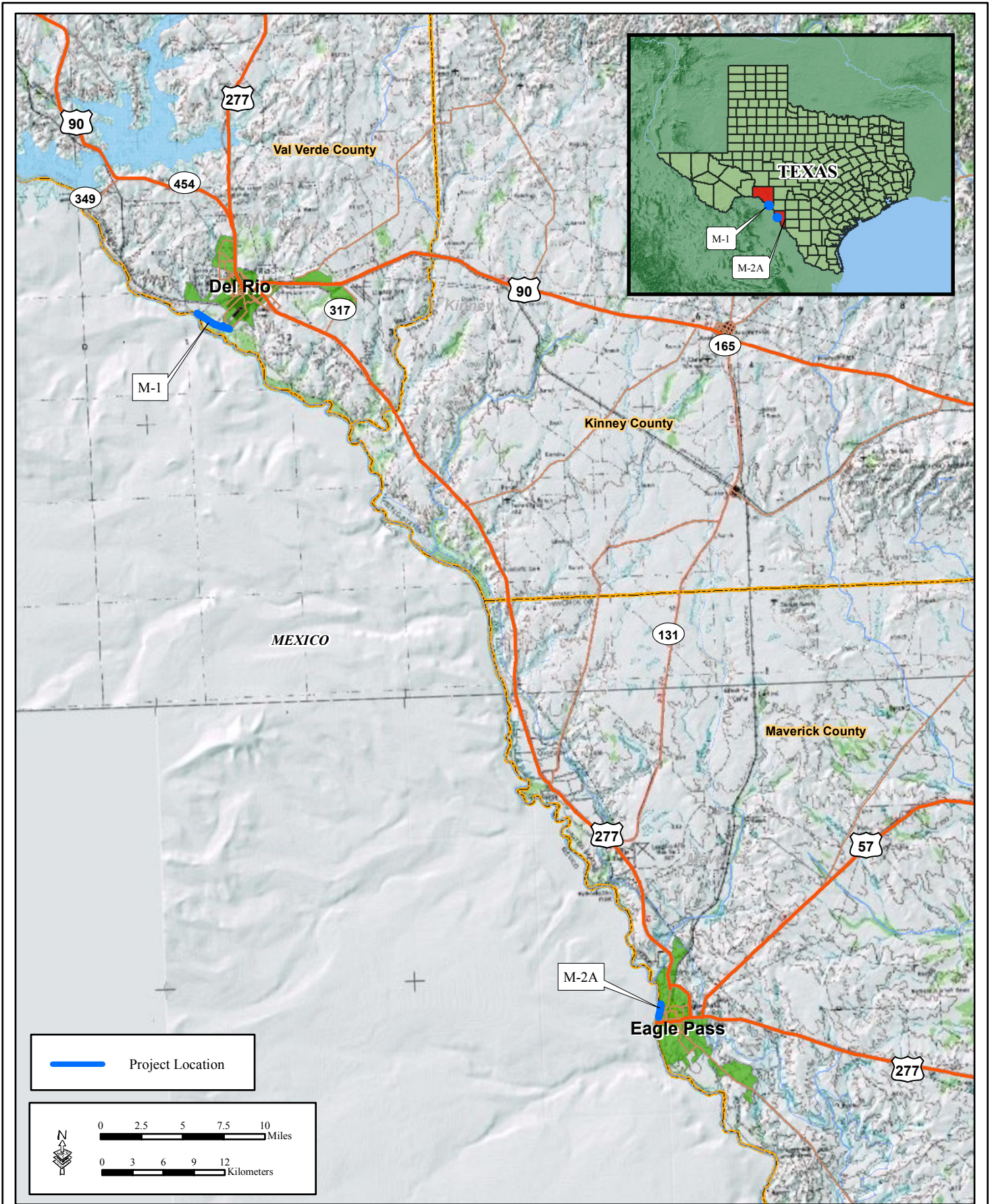


Figure 1-1: Vicinity Map

After the Secretary of Homeland Security waived compliance with certain environmental laws and requirements in April 2008, CBP reviewed, considered, and incorporated comments received on the draft EA and FONSI from the public and other Federal, state, and local agencies, as appropriate, during the preparation of the ESP. Results of public and agency coordination efforts for the draft EA and FONSI were addressed, incorporated into the ESP, and posted for the public.

In addition to the past public involvement and outreach program, CBP continued to coordinate with various Federal and state agencies during the development of the ESP and during construction. These agencies include, but are not limited to, those described in the following paragraphs.

U.S. Section, International Boundary and Water Commission (USIBWC) - CBP coordinated with USIBWC to ensure that any construction along the international border did not adversely affect International Boundary Monuments or substantially impede floodwater conveyance within international drainages.

U.S. Army Corps of Engineers (USACE), Fort Worth District - CBP coordinated all activities with USACE to identify potential jurisdictional Waters of the United States, including wetlands, and to develop measures to avoid, minimize, or compensate for losses to these resources.

U.S. Fish and Wildlife Service (USFWS) - CBP coordinated with USFWS to identify listed species that had the potential to occur in the project area, to identify potential effects on listed species, and to develop BMPs which could be implemented.

1.2 METHODS

1.2.1 Environmental Monitoring Process

CBP provided an environmental monitor during construction activity. Duties of the designated environmental monitor included documenting impacts that occurred beyond those described in the ESP, advising on-site construction managers regarding implementation of the BMPs and other environmental issues as they arose, and ensuring implementation of the appropriate BMPs. Environmental monitors recorded observations daily and compiled weekly reports which were submitted to CBP and the USACE. Following completion of construction, a monitoring summary report was compiled.

The designated environmental monitor was to notify the construction manager of any activities that could harm or harass a federally listed species or any other environmental issue that was identified. Upon such notification, the construction manager was to temporarily suspend activities in the vicinity of the federally listed species and notify the Contracting Officer, the Administrative Contracting Officer, and the Contracting Officer's Representative of the suspension so that the key USACE personnel could be notified and apprised of the situation for resolution. In addition, the CBP notified the USFWS Corpus Christi Field Office in the event that any federally listed species were directly impacted during construction activities. CBP maintained open coordination with USFWS during construction to discuss implementation and effectiveness of BMPs to avoid adverse impacts on federally listed species. In fact, CBP shared the biological monitoring reports with USFWS during construction activities.

1.2.2 Change Request (CR) Process

During construction, CBP identified potential modifications that, if implemented, would improve the effectiveness of the TI; reduce construction cost, schedule, or environmental impacts; enhance long-term maintenance requirements; address stakeholder concerns; or reduce risk to U.S. Border Patrol (USBP) agents' health and safety. The proposed modification was submitted for review and approval on a CR form to CBP headquarters. The CR form described the proposed change or modification, justification of the change, anticipated effects on construction costs and schedule, and any other extenuating

circumstances that would help to clarify the change. Each proposed change was carefully vetted across CBP to evaluate potential impacts prior to final headquarters CBP approval.

1.2.3 Post-Construction Survey Methods

The objective of the post-construction survey was to locate, identify, photograph, and record the installation of the TI infrastructure, including types of fence and width of roads and project corridor. In addition, biological communities, wetlands and other environmental conditions in and adjacent to the project corridor were recorded during the surveys. Any other unusual conditions (e.g., fence failure, significant erosion, hazardous waste, construction debris) were also recorded when they were observed.

Prior to the field survey, CBP produced maps of the project corridor as described in the ESP. The ESP was reviewed for the description of locations and type of fence to be installed, location and width of access and maintenance area, and location and size of staging areas. Approved CR forms were also produced and used in the field to document approved changes. A survey of the entire M-1 and M-2A project corridor was conducted, and the center line, length, and width of road alignments were recorded using a Trimble™ Global Positioning System (GPS). Periodic GPS coordinates were taken of the temporary and permanent construction footprint, especially when the corridor appeared to be expanded or reduced. The perimeter of staging areas was also recorded using GPS, as well as the stop/start coordinates for various fence types.

SECTION 2.0
DESCRIPTION OF THE PLANNED ACTION



2.0 DESCRIPTION OF THE PLANNED ACTION

The ESP addressed the construction, maintenance, and operation of a total of 3.1 miles of TI in the Del Rio Sector along the U.S./Mexico international border in Val Verde and Maverick counties, Texas, comprised of two segments designated as M-1 and M-2A. Segment M-1 is situated immediately east of Cienegas Creek, 0.36 mile east of the Port of Entry (POE) in Del Rio, Texas. There is one primary road leading to the project corridor, U.S. Highway 277 (U.S. 277) (Figure 2-1). Segment M-2A generally follows the bank of the Rio Grande in Eagle Pass, Texas. Ryan Street is the primary road leading to the project corridor (Figure 2-2). Segment M-1 was to be situated on either side of the International Bridge, at the Del Rio POE southwest of the City of Del Rio in Texas. The M-2A segment was proposed to extend from the north to the southwest parallel to the Rio Grande River, north of the Eagle Pass Bridge I POE.

2.1 SEGMENT M-1

The analysis presented in the ESP anticipated that the M-1 TI would include approximately 2.3 miles of fence, road, and lights within a 150-foot-wide corridor. The TI would begin east of Cienegas Creek and travel for approximately 1.8 miles to the southeast parallel to Garza Lane, then Rio Grande Road, to the intersection of Rio Grande Road and U.S. 277. From this point, the TI would extend 0.18 mile in a northeasterly direction, across Rio Grande Road to a point identified as the new toll facility for the new POE facilities that were recently constructed. TI then continues on the eastern side of the POE for an additional 0.36 mile. The ESP included discussion for one type of fence to be used to construct the Segment M-1: Aesthetic-Style Fence. This fence style is designed specifically for use in areas near residential or developed areas.

The ESP stated that TI would impact an approximately 150-foot-wide corridor for fences and roads, that vegetation within the corridor would be cleared, and that grading would occur where needed. The area that was planned to be impacted by the construction of TI totaled approximately 42.3 acres, assuming the entire 150-foot-wide corridor would be used. The location and size of the staging areas were not discussed in the ESP; however, they were included on CBP's Geographic Information Systems (GIS) Facilities and Infrastructure Tracking Tool (FITT) data files. The planned staging area, according to the CBP GIS data files, was to total 0.5 acre and would be located adjacent to the northern boundary of the construction footprint near the western terminus of the planned TI.

The M-1 segment parallels the USIBWC floodplain of the Rio Grande for the entirety of its length. There are no permanent surface water features occurring within the construction corridor. Surface water features occurring adjacent to the impact corridor consisted of resacas (bancos) that occur to the west of Segment M-1.

Field surveys were conducted in Segment M-1 on January 31 and February 1, 2008, to delineate jurisdictional wetlands and Waters of the United States within the project area. Formal delineations were conducted within an assessment area near the fence alignments and roads within staging areas. Of the total area delineated, one wetland and two Waters of the United States were identified within a 60-foot corridor associated with Segment M-1 and the anticipated impact area totaled 0.03 acre (Table 2-1).

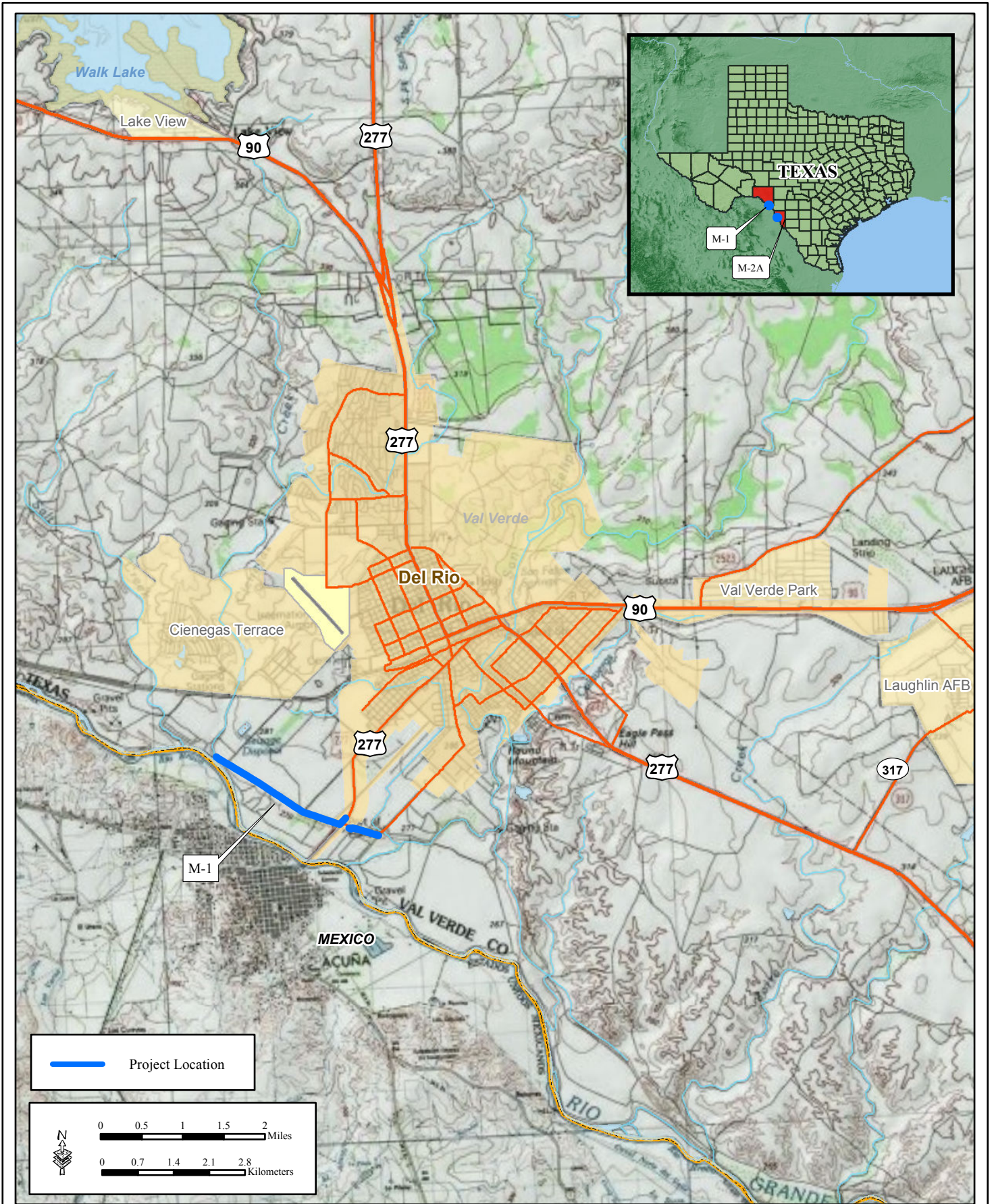


Figure 2-1: M-1 Proposed Construction Segment

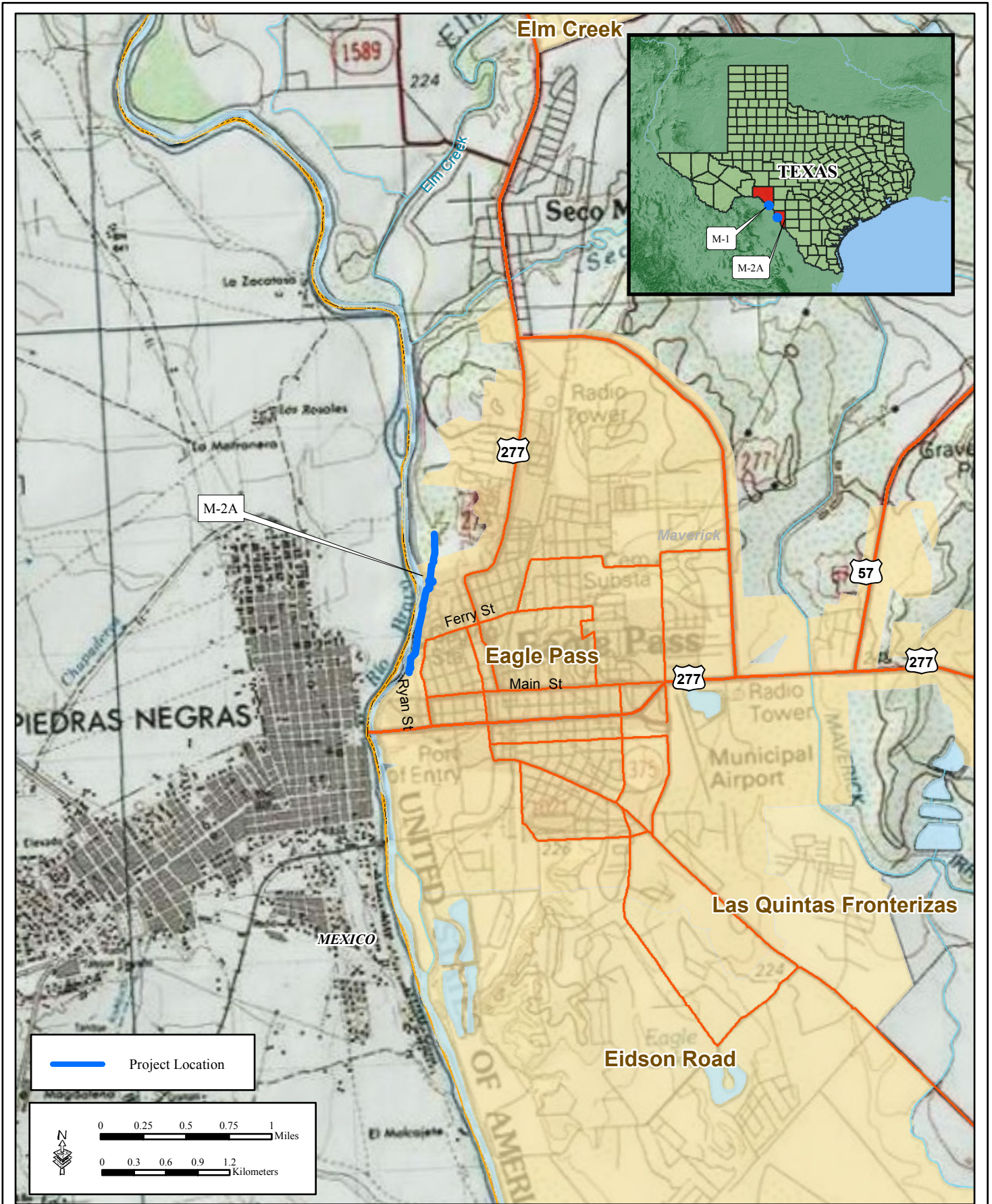


Figure 2-2: M-2A Proposed Construction Segment

Table 2-1. Summary of Jurisdictional Wetlands or Waters of the United States within Segment M-1 (as stated in the ESP)

Wetland or Waters of the United States Type	Total acreage delineated (acres)	Acreage within the 60-Foot Corridor (acres)
Wash	0.09	0.00
Wash	0.03	0.03
Palustrine emergent	0.75	0.00
Total	0.87	0.03

2.2 SEGMENT M-2A

The analysis presented in the ESP anticipated that Segment M-2A TI would include approximately 0.8 mile of fence, road, and lights within a 60-foot-wide corridor. The TI would generally follow the bank of the Rio Grande. The ESP included discussion for two types of fence to be used to construct Segment M-2A: Aesthetic-Style Fence and a 15- to 18-foot-high concrete retaining wall. In addition to the TI to be constructed, improvement of existing roads along the entire length of the primary pedestrian fence were planned to be completed.

The ESP stated that TI would impact an approximate 60-foot-wide corridor for fences and roads, that vegetation within the corridor would be cleared, and that grading would occur where needed. The area that was planned to be impacted by the construction of TI, which included staging areas, totaled approximately 12.8 acres. The location and size of the staging areas were not discussed in the ESP; however, they were included on CBP’s GIS data files. The planned staging areas, according to the CBP GIS data files, were to total 7.0 acres, and be located at the northern and southern ends of the planned TI.

Field surveys were conducted in Segment M-2A on January 31 and February 1, 2008 to delineate jurisdictional wetlands and Waters of the United States within the project area. Delineations were also conducted along roads and staging areas associated with the proposed fence alignment. Formal delineations were conducted within the 60-foot-wide corridor associated with the fence alignments, roads, and within staging areas.

Two wetlands and two Waters of the United States were identified in Segment M-2A during the pre-construction field surveys (Table 2-2). The total acreage delineated for the two wetlands and two Waters of the United States in Segment M-2A was 0.65 acre. Of the delineated wetlands and Waters of the United States identified, 0.55 acre was within the potential 60-foot-wide impact area.

Table 2-2. Summary of Jurisdictional Wetlands within the Segment M-2A (as stated in the ESP)

Wetland or Waters of the United States Type	Total acreage delineated (acres)	Acreage within the 60-Foot Corridor (acres)*
Drainage channel	0.02	0.02
Drainage channel	0.03	0.03
Riverine/palustrine emergent	0.20	0.20
Palustrine emergent	0.40	0.30
Total	0.65	0.55

2.3 MONITORING

Throughout the course of construction, unexpected field conditions required practical changes to the Planned Action during construction. In these situations, CBP conducted the appropriate field surveys to document the potential environmental impacts that may have occurred as a result of these changes. CBP further coordinated with the USFWS to develop BMPs specific to the construction activities and applied them accordingly.

The most common BMPs in the Del Rio Sector for which non-conformance was observed included lack of drip pans or protective ground covering under staged construction vehicles, lack of lids on trash receptacles, and ground surface contamination due to inadequate containment of concrete wash areas. Most BMP infractions did not require restoration efforts because little to no native vegetation was removed during these events. No known impacts on federally listed species were documented as a result of the infractions and there were no predicted or actual impacts on threatened or endangered species or their habitat in the Del Rio Sector.

2.4 CHANGE REQUEST FORMS

Approximately 27 CR forms were approved for the Del Rio Sector at the time the post-construction survey was performed. However, six of these had the potential to affect the construction footprint and, thus, result in changes in environmental impacts. Table 2-5 summarizes the project modifications for Segments M-1 and M-2A determined to have the potential to result in a change to the environmental effects discussed in the project ESP.

Table 2-3. Summary of Approved CRs with Potential to Affect the Construction Footprint

Approval Date	Summary Description	Potential Environmental Impact
February 29, 2008	Relocation of the existing POE near Segment M-1 approximately 0.18 mile north of its current location; close the gap in the TI that is caused by the relocation of POE.	0.18 mile of new disturbance; however, this would close a gap in the TI.
September 15, 2008	Realignment of the Segment M-1 TI by approximately 30 feet west and 0.5 mile south.	Increase overall permanent project impacts; however, TI would not be located on private land.
November 10, 2008	Remove nine septic tanks, cap three existing water wells, move access roads to avoid conflicts with underground city water lines, replace current access road, realign Segment M-1 TI from bluff, and decrease Segment M-1 TI by 42 feet.	Decrease of overall permanent project impacts.
December 15, 2008	Adjust Segment M-1 TI by several hundred feet to avoid relocation of power poles; reinforce bluff located adjacent to this new proposed TI alignment.	Decrease of overall permanent project impacts.
December 9, 2008	Stabilize a steep embankment adjacent to the M-2A TI and access road; install a groundwater drainage system and riprap.	Increase overall permanent project impacts.
September 1, 2009	Replace proposed M-2A concrete retaining wall with approximately 0.53 mile of P-1 fence on top of bluff.	Would relocate TI out of floodplain.

2.5 IMPACT QUANTITIES ANTICIPATED IN THE ESP

Table 2-2 identifies the pertinent resources that were anticipated to be impacted, as described in the ESP. This table is not all-inclusive, as post-construction quantities for some resource impacts (e.g., air, noise, socioeconomic) could not be measured.

Table 2-4. Resources Anticipated to be Impacted in the Del Rio Sector

Resource	Impacts*			Comment
	Permanent	Temporary	Total	
Soils	4	48	52	<p>Short-term minor direct impacts due to grading, contouring, and trenching will occur on 43 acres in M-1 and 5 acres in M-2A. Permanent soil disturbance as a result of grading, contouring, and trenching will impact 3 acres in M-1 and 1 acre in M-2A.</p> <p>Several soil associations were mapped by Natural Resources Conservation Service (NRCS) within Segments M-1 and M-2A. Soils in M-2A are designated as Prime Farmland when properly irrigated. Irrigation within the corridor will not occur.</p>
Vegetation	49	0	49	Grading will remove vegetation within the floodplain of the Rio Grande resulting in the loss of approximately 49 acres in M-1 and M-2A.
Cultural Resources	10 historic resources	3 historic resources	13 sites	<p>The M-1 project corridor passes near three historical residential sites. All three of these sites will have long-term, permanent visual impacts. One archaeological site would be permanently impacted.</p> <p>The M-2A project corridor passes near eight historical residential sites. Five of these sites will have long-term, permanent visual impacts. Three of these sites will have short-term temporary impacts. One archaeological site would be permanently impacted.</p>
Wetlands and Waters of the United States	0.6	0	0.6	Five wetlands or Waters of the United States in M-1 and M-2A Segments would be permanently impacted.

* Unless otherwise noted, all quantifications are in acres.

As shown in Table 2-4, some inconsistencies in the acreage of impacts among resources as well as type (temporary or permanent) were noted in the ESP; therefore, for the purposes of the ESSR impact analysis, all impacts associated with the ESP will be compared as total acreages. ESP impacts for Segment M-1 were estimated using a 150-foot-wide corridor (41.8 acres) and proposed staging area (0.5 acre); a 60-foot-wide corridor (5.8 acres) and proposed staging areas (7 acres) were used to estimate the impact areas for Segment M-2A. Staging area impacts were not specifically identified in the ESP but were gleaned from CBP GIS FITT data files.

**SECTION 3.0
POST-CONSTRUCTION FINDINGS**



3.0 POST-CONSTRUCTION FINDINGS

This section discusses the results of the post-construction surveys in both qualitative and quantitative terms, by construction activity. A summary of the impacts on the pertinent resources, based on these post-construction surveys, is presented at the end of this section.

3.1 RESULTS OF ROAD MEASUREMENTS

3.1.1 Access Roads

The primary access roads for M-1 and M-2A are preexisting paved roads. These access roads were addressed briefly in the ESP, but were determined to need no alteration. One new access road was proposed in the ESP for M-2A to allow construction access. Post-construction surveys revealed that one new access road had been constructed in both M-1 and M-2A. Impacts associated with the new access roads totaled approximately 0.1 acre (Figures 3-1 and 3-2). The access road in Segment M-1 was a permanent access road, while the access road in Segment M-2A was temporary for construction purposes, and has been revegetated.

3.1.2 Maintenance and Other Roads

During post-construction surveys, the fence and adjacent maintenance/other road footprint was noted as running parallel with the USIBWC floodplain (M-1) and inside of the Federal Emergency Management Agency (FEMA) 100-year floodplain (M-2A). The ESP did not differentiate impacts between roads or fence but rather provided only total acres anticipated to be impacted, which was reported to be approximately 55.1 acres between the two segments. However, post-construction surveys revealed that only 48 acres were impacted.

3.2 FENCE

The analysis in the ESP anticipated that two types of fence would be installed in the Del Rio project corridor. A primary pedestrian fence with an aesthetic quality was the only fence type proposed for Segment M-1 (Photograph 3-1). Both a concrete retaining wall and aesthetic quality fence were proposed for Segment M-2A. The post-construction site surveys confirmed that only the aesthetic-style fence was installed. A CR was approved for this modification in fence design.

The total length of fence was stated as 3.1 miles in the ESP. The post-construction survey recorded the fence to be 3.1 miles long. A slight decrease in the length of M-1 and a slight increase in the length of M-2A attributes to the equality of the length of fence.



Photograph 3-1. Primary Pedestrian Fence with Aesthetic Quality

3.3 STAGING AREAS

The ESP indicated that three staging areas would be used for construction of the TI, one for M-1 and two for M-2A. The staging area for M-1 was proposed to total 0.5 acre. The post-construction survey revealed that the staging area location in M-1 was moved from within the footprint of the proposed construction activities to a nearby paved, commercial warehouse lot (Photograph 3-2). Therefore, no temporary or permanent impacts occurred. Two staging areas were proposed for M-2A, both of which were used during construction activities (Photograph 3-3). The northernmost proposed staging area in M-2A was decreased in size

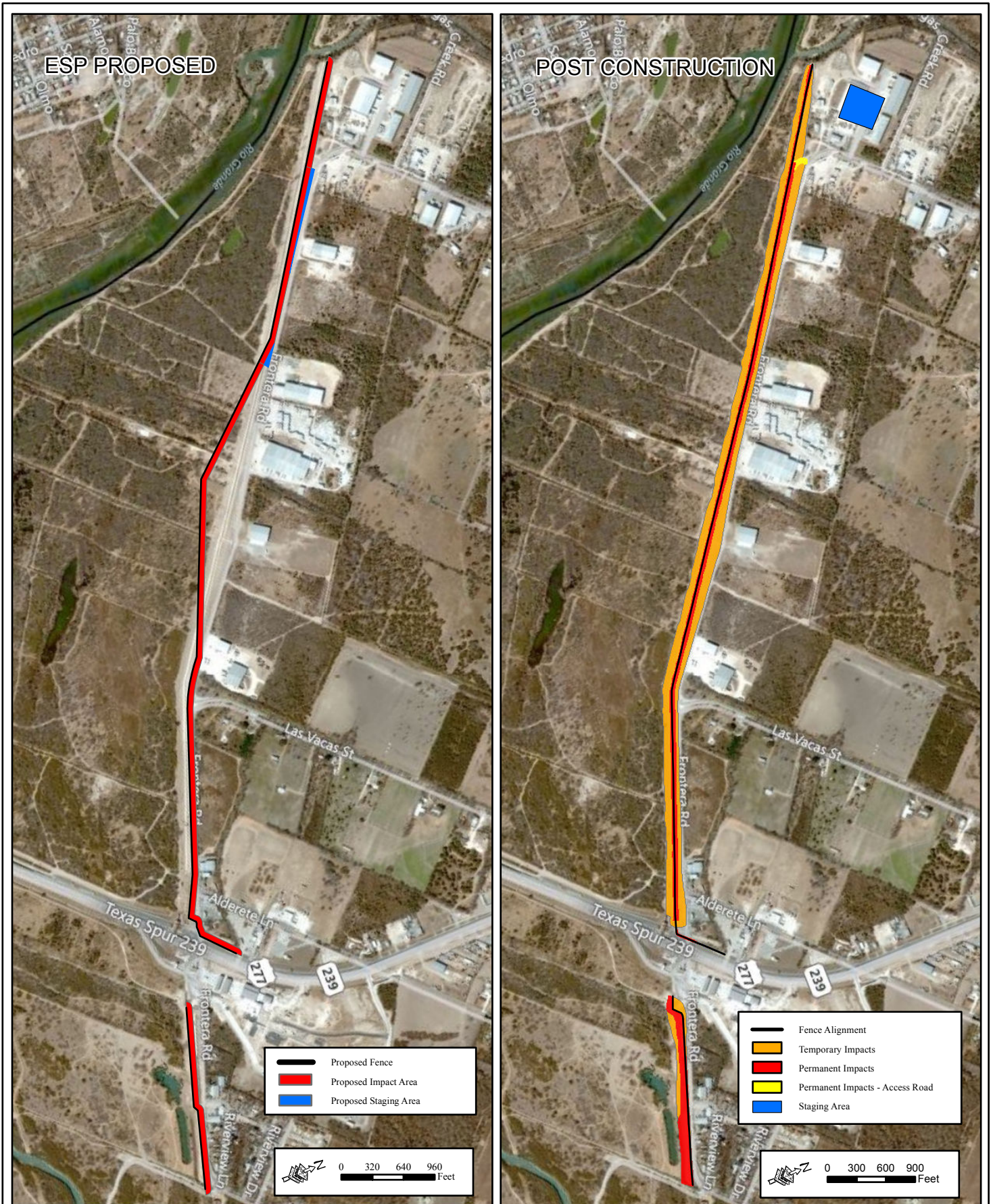


Figure 3-1: Del Rio (M-1 Segment) Infrastructure Map



July 2011

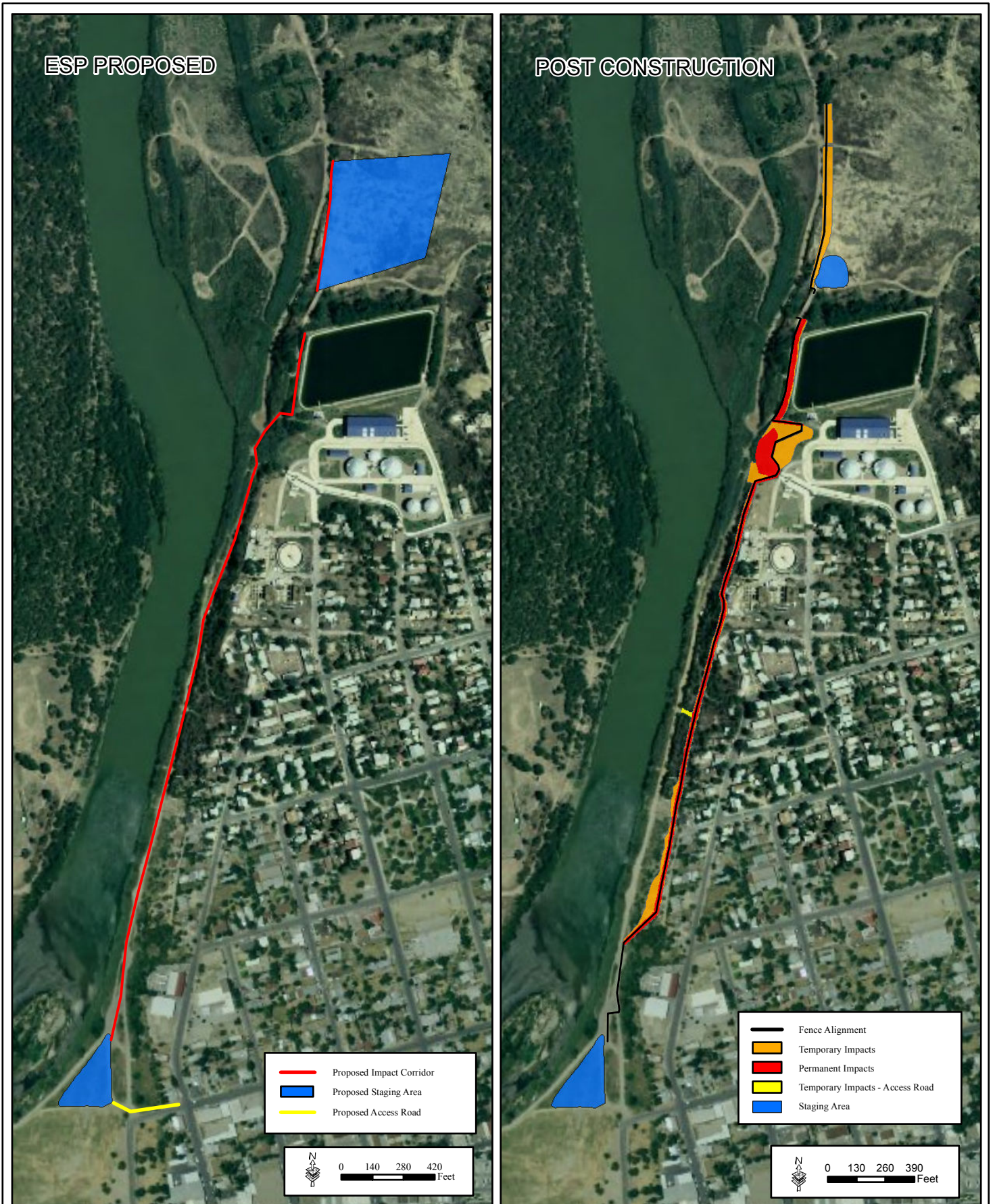


Figure 3-2: Del Rio (M-2A Segment) Infrastructure Map

from 5.8 acres to 0.5 acre. The overall impacts from staging areas for both segments were proposed to be approximately 7.5 acres. Post-construction surveys determined the overall impacts from staging areas to be 1.5 acres. A decrease in impacts is most likely due to the decrease in the acreage for staging areas from the proposed 7.5 acres to 1.5 acres.



Photograph 3-2. M-1 Staging Area seen in the background near the buildings



Photograph 3-3. M-2A Southern Staging Area

3.4 MEASURED IMPACT QUANTITIES

3.4.1 Soils

The analysis in the ESP anticipated that the Planned Action would impact 55.1 acres of soils. Results of the post-construction field survey confirmed that the M-1 project corridor and staging areas within M-2A were reduced. The total impacts on soils decreased by 7.7 acres from what was reported in the ESP. Table 3-1 summarizes the change in area impacted as estimated from the ESP versus those that were measured during the post-construction survey.

Table 3-1. Total Impact Area Resulting from the Installation of M-1 and M-2A Tactical Infrastructure (acres)

Fence Segment	ESP Estimated Length (miles)	Post-Construction Survey Length (miles)	ESP Estimated Impact Area (acres)*	Post-Construction Impact Area (acres)	Impact Area Difference (acres)
M-1	2.3	2.2	42.3	42.6	0.3
M-2A	0.8	0.9	12.8	4.8	-8.0
Total	3.1	3.1	55.1	47.4	-7.7

* Impact areas for Segment M-1 were estimated using a 150-foot-wide corridor (41.8 acres) and proposed staging area (0.5 acre); a 60-foot-wide corridor (5.8 acres) and proposed staging areas (7 acres) were used to estimate the impact areas for Segment M-2A, as defined in the ESP. Staging area impacts were not specifically identified in the ESP but were gleaned from CBP GIS FITT data files.

3.4.2 Vegetation

The TI was expected to impact an approximate 150-foot-wide corridor and staging areas totaling 42.3 acres in M-1 and an approximate 60-foot-wide corridor and staging areas totaling 12.8 acres in M-2A. Vegetation within the corridor was to be cleared and graded where needed. However, based on post-construction surveys, the area that was impacted by the construction of TI totaled approximately 47.4 acres for both M-1 and M-2A. Therefore, the overall impacts decreased by approximately 7.7 acres. The

project area within Segment M-1 was revegetated at the time of the post-construction surveys. Revegetation efforts were initiated in Segment M-2A during the time of the post-construction surveys.

3.4.3 Cultural Resources

No new cultural resources were found in the areas added to the segments within the Del Rio Sector TI.

3.4.4 Wetlands and Waters of the United States

Results of the post-construction surveys confirmed that the TI construction did not increase the footprint within the jurisdictional wetland areas beyond what was originally planned (i.e., 0.6 acre of potential impact on wetlands and Waters of the United States). No other additional wetlands or Waters of the United States were identified where the project corridor was modified, such as the staging areas. Erosion and sediment control and stormwater management practices during and after construction were implemented consistent with the Storm Water Pollution Prevention Plan prepared for the Planned Action.

**SECTION 4.0
DISCUSSION**



4.0 DISCUSSION

4.1 INCREASED PROJECT FOOTPRINT

Based on the post-construction surveys, the temporary impacts on soils and vegetation totaled 35 acres, which is an increase of 27.5 acres from the original estimation of approximately 7.5 acres. The increase was due to the increase in size of the temporary footprint for constructing the fence. The proposed staging area for M-1 described in the CBP GIS FITT data files indicated that the staging area was to be approximately 0.5 acre in size. The staging areas for M-2A were planned to total approximately seven acres. No temporary impacts were attributed to the fence in the ESP; however, 33.5 acres of temporary impacts attributable to fence construction were recorded during post-construction surveys.

4.2 DECREASED PROJECT FOOTPRINT

The ESP stated that the combined fence length of M-1 and M-2A would total approximately 3.1 miles. Post-construction surveys recorded a total fence length of 3.1 miles for the entire sector, although there was a slight decrease in the length of M-1 (0.1 mile) and a corresponding slight increase in the length of M-2A. These slight differences are normal during construction activities of this magnitude. The permanently impacted area as presented in the ESP decreased from 47.6 acres to 12.4 acres, based on the post-construction surveys. This decrease in acreage can likely be attributed to the increase of revegetation efforts, resulting in only temporary impacts to the area.

4.3 ADDITIONAL ISSUES

No additional issues were identified during the post-construction survey that would require consideration. No BMP infractions were pending at the time construction concluded for M-1 and M-2A. CBP is implementing a Comprehensive Tactical Infrastructure Maintenance and Repair (CTIMR) program to ensure the TI and related areas are maintained and repaired as needed.