



COMPENSATORY MITIGATION PLAN

for

***Sterling Ranch Residential Development
Sterling Ranch Phase 2
El Paso County, Colorado***

PREPARED FOR:

Sterling Ranch Metropolitan District No. 1
4325 N Nevada Avenue #100
Colorado Springs, CO 80907
Contact: Jim Morley

PREPARED BY:

Bristlecone Ecology, LLC
2023 W. Scott Place
Denver, CO 80211
Contact: Dan Maynard
Phone: 971.237.3906

June 2020

TABLE OF CONTENTS

1	Introduction.....	3
1.1	Purpose and Need.....	3
1.2	Project/Consultation History.....	3
2	Site Description.....	4
2.1	Proposed Action.....	4
2.2	Watershed Approach.....	4
3	Compensatory Mitigation.....	5
3.1	Objectives.....	5
3.2	Mitigation Area Selection.....	5
3.3	Mitigation Area Protection.....	6
3.4	Baseline Information.....	6
3.5	Mitigation Area Creation.....	6
3.6	Performance Standards & Monitoring Requirements.....	9
4	Long-Term Management.....	11
4.1	Post-Mitigation Monitoring.....	11
4.1.1	Wetland Mitigation Monitoring.....	12
4.1.2	Mitigation Monitoring Reports.....	12
4.2	Adaptive Management.....	12
5	Literature Cited.....	14



TABLES

TABLE 1: WETLAND SEEDING MIXES FOR MITIGATION AREAS	8
TABLE 2: EL PASO COUNTY NOXIOUS WEED LIST	10

APPENDICES

APPENDIX A: PROJECT LOCATION MAP
APPENDIX B: PROJECT DESIGN PLANS
APPENDIX C: EXAMPLE DEED RESTRICTION
APPENDIX D: COMPENSATORY MITIGATION PLAN MAP

1 INTRODUCTION

Sterling Ranch Metropolitan District No. 1 (“Proponent”) retained Bristlecone Ecology, LLC (“B.E.” or “Agent”) to prepare this Compensatory Mitigation Plan (CMP) for compliance with permit conditions pursuant to Section 404 of the Clean Water Act (CWA). The Sterling Ranch Residential Development (“Project”) holds a Section 404 permit for impacts to regulated wetlands/Waters of the U.S. (WOTUS) under U.S. Army Corps of Engineers Action No. SPA-2015-00428-SCO. This CMP addresses the requirement for compensatory mitigation to offset 4.23 acres of permanent WOTUS loss resulting from the development of the Project, located in unincorporated El Paso County (“County”), Colorado. The development includes approximately 1,500 acres of multi-use property north of East Woodmen Road and south and east of Vollmer Road (Appendix A: *Project Location Map*). The property is bisected by Sand Creek, a federally regulated WOTUS, and a tributary to the west of Sand Creek. This CMP creates an approach for establishing and managing wetland mitigation areas on the Project site that will offset the loss of regulated WOTUS authorized by Action No. SPA-2015-00248-SCO.

1.1 Purpose and Need

Under Section 404 of the CWA, actions that impact more than one-tenth of an acre of jurisdictional wetlands typically require compensatory mitigation for those effects. Under the terms of Action No. SPA-2015-00248-SCO, the Project as depicted in site plans was designed to impact 4.21 acres and 5,048 linear feet (LF) of WOTUS in Sand Creek and its tributary to the west. The ratio of compensatory mitigation to impacts in the State of Colorado is required to be exactly 1-to-1 by statute. Thus, the purpose of this CMP is to detail a 1-to-1 ratio of compensatory mitigation for impacts of like kind resulting from development of the Project. Special Condition 1 of the authorization states that the completion of all elements of the CMP is a requirement of permit approval. Development of a CMP in accordance with the USACE’s requirements for compensatory mitigation will satisfy the need for such mitigation outlined in Action No. SPA-2015-00248-SCO.

1.2 Project/Consultation History

An approved jurisdictional determination (AJD) was issued on April 14th, 2008 under USACE file number SPA-2007-00551-SCO determining that both Sand Creek and its western tributary were jurisdictional WOTUS. A formal wetland delineation of the Project site was conducted on February 5th, March 10th, and March 11th, 2015, and a wetland delineation report was finalized May 7th, 2015. A Department of the Army Individual Permit (IP) application was submitted to the Albuquerque District’s Southern Colorado Regulatory Office on October 22nd, 2015 detailing 4.23 acres of permanent WOTUS loss in Sand Creek and the western tributary. Project authorization was granted on February 29th, 2016 under Action No. SPA-2015-00428-SCO, with an expiration date of March 1st, 2021. A site visit between the USACE, County, Proponent, and Proponent’s authorized agent was held in the spring of 2019 to discuss, among other things, the development and approval of a CMP to account for and appropriately mitigate Project impacts to wetlands/WOTUS. B.E. was retained in 2020 to prepare the CMP.

2 SITE DESCRIPTION

Sterling Ranch Residential Development includes a mix of commercial, office, industrial, institutional, and multi-family residential use along with other associated facilities on approximately 1,500 acres in unincorporated El Paso County. The Project site is located northeast of the intersection of Black Forest Road and Vollmer Road on portions of Sections 25, 31, and 33 in Township 12 South, Range 65 West, and can be found on the Falcon NW 7.5-minute quadrangle (USGS 2019). (Appendix A). Elevations on the property range between approximately 6,990 and 7,330 feet above mean sea level (AMSL). Overall, the region is undergoing increasing commercial and residential development.

2.1 Proposed Action

The Proponent is currently in development of the 1,500-acre Sterling Ranch property. The Project would be developed in phases, in accordance with agreements between commercial and residential development interests. Currently, the Proponent is planning to develop an approximately 78-acre portion of the Sterling Ranch property known as Sterling Ranch Phase 2 (“Phase 2”). This phase will not impact the main channel of Sand Creek, but it will result in the permanent loss of nearly all of the western tributary within the property. Facilities planned for this area include residential lots, arterial and local roads, and utilities. Stormwater runoff will be captured at an existing detention pond in the southwest portion of the property (Appendix B: *Project Design Plans*). Runoff captured at the detention pond will be transferred through a water line to an existing outfall structure and into the main channel of Sand Creek at historic flow rates.

In order to mitigate for permanent and temporary impacts to WOTUS resulting from Phase 2 development, compensatory mitigation has been proposed herein to identify areas for wetland establishment and conservation. More specifics of the proposed mitigation are discussed in Section 3 of this CMP. A noxious weed management plan would be enacted in accordance with El Paso County standards (EPC 2017) to limit the establishment and spread of weedy species in wetland mitigation areas following their construction.

Development of the proposed action is already underway on some portions of the Project site, with development of Phase 2 expected to begin in early 2021. Updates regarding the anticipated construction schedule would be communicated to the USACE and County as Project permitting, platting, and other reviews progress.

2.2 Watershed Approach

The USACE and EPA have indicated that a watershed approach is the preferred method for accomplishing permittee-responsible compensatory mitigation. As such, proposed mitigation shall be designed to take place within the same watershed that is impacted by project development. Wetland mitigation areas shall be designed to contribute to the sustainability and proper function of the watershed. The Project area is located in the Middle Fountain Creek watershed, 10-digit hydrologic unit code (HUC) 1102000303. Mitigation areas will be established on-site along Sand Creek in order to contribute direct benefit to the Middle Fountain Creek Watershed.

3 COMPENSATORY MITIGATION

Project impacts were authorized on February 29th, 2016 by Action No. SPA-2015-00428-SCO; a total of 4.21 acres and 5,048 LF of permanent wetland loss was authorized. The current action, Phase 2, will impact 3.11 acres and approximately 3,150 LF of the total authorized wetland losses. Compensatory mitigation to address the impacts resulting from Project development is described in the following sections. Because Action No. SPA-2015-00428-SCO authorizes losses occurring within Phase 2 as well as other Project phases, this CMP is designed to be a living document that can address impacts from the phased construction process in a similarly phased approach. Thus, while this document discusses mitigation efforts specific to wetland losses occurring from Phase 2 development, it is anticipated that the remaining 1.10 acres and 1,898 LF of wetland mitigation will be addressed through future amendments and addenda to this CMP.

3.1 Objectives

The primary objective of compensatory mitigation is to offset the loss of wetlands or other WOTUS resulting from development of the Project. Development of Phase 2 of Sterling Ranch will result in the loss of 3.11 acres of jurisdictional wetlands, primarily from the western tributary to Sand Creek, which will require compensatory mitigation. A further objective of mitigation efforts is to promote conditions at the site that will allow for the successful establishment of mitigation areas. Thus, mitigation objectives are a twofold effort comprising:

1. Structural improvements within the Sand Creek floodplain and along streambanks that would promote improved hydrologic function and the establishment of hydric soils and wetland vegetation through natural succession.
2. Creation of 3.11 acres of jurisdictional wetlands in and adjacent to Sand Creek in these areas.

The following sections detail the specific locations and types of wetlands to be created, as well as the protections and performance standards that will ensure the successful establishment of mitigation areas.

3.2 Mitigation Area Selection

As previously mentioned, the USACE prefers that permittee-responsible mitigation occur within the same watershed as the impacts, and selecting on-site mitigation areas will ensure that mitigation compensates the watershed where impacts occur. Moreover, on-site mitigation ensures that hydrologic and soil conditions are conducive to successful mitigation implementation.

Mitigation areas have been selected primarily based on the availability of each site to receive the necessary hydrology to support wetlands. Sand Creek provides substantial, year-round hydrology to existing wetlands on the site, and as such is the natural choice for wetland mitigation establishment. Hydrology will also be provided through the release of stormwater runoff detained by three off-line detention facilities that will release stormwater at historic rates into Sand Creek. Due to the increase in impermeable surfaces adjacent to the creek through development, it is anticipated that additional hydrology above the current baseline will be available to support wetland mitigation sites.

Furthermore, planned channel improvements in Sand Creek will stabilize the channel and reduce grade, allowing water to accumulate and pond in eddies and pools above and below grade control structures. These conditions make areas around grade control structures ideal for supporting the establishment of wetlands.

3.3 Mitigation Area Protection

Mitigation sites will be owned by the Proponent and access to the sites will be restricted to those with written authorization. In accordance with the USACE's *Guidance for Mitigation and Mitigation Banking in the Albuquerque District* (2005), mitigation areas should be protected by a legally-binding instrument to ensure their success and proper maintenance. Typically, a deed restriction is prepared between the permittee and the USACE that limits the activities that may be performed in mitigation areas. An example deed restriction is provided in Appendix C.

3.4 Baseline Information

Existing site conditions are a critical component of wetland mitigation design, as they are predictors of success. Hydrology at the site is provided primarily by natural precipitation events and runoff in Sand Creek. The western tributary, which will be removed through construction, receives additional hydrology via two culverts that transport runoff from extensive impermeable surfaces on the RV and boat storage property to the north. Sand Creek is a perennial stream that maintains baseline hydrologic flows throughout the growing season. This baseline hydrologic component will provide a stable water source for mitigation areas located within and along the Sand Creek channel.

Wetlands currently on the site are dominated by both wetland and upland plants relatively common to the region and ecological setting. Plants found in wetlands range from upland (UPL) to obligate (OBL) wetland indicator status, though plants rated OBL and facultative wetland (FACW) are dominant. The wettest areas, typically along the active channel of Sand Creek, are dominated Nebraska sedge (*Carex nebrascensis*) and beaked sedge (*C. utriculata*); Rocky Mountain rush (*Juncus saximontanus*) is also dominant. Other dominant hydrophytes include arctic rush (*Juncus arcticus*), which is widespread and not restricted to the wettest areas, and redtop (*Agrostis gigantea*), which is locally common in some wetlands and absent in others. Other common, though not dominant, wetland species include paniced bulrush (*Scirpus microcarpus*) and saltgrass (*Distichlis spicata*), both found in wetter areas, and switchgrass (*Panicum virgatum*) and slender wheatgrass (*Elymus trachycaulus*), found in drier areas and on slopes just above the active channel. There are a few inline ponds along Sand Creek that support dense stands of broadleaf cattail (*Typha latifolia*) and hardstem bulrush (*Schoenoplectus acutus*), but these species are dominant only in a few areas. Sandbar willow (*Salix exigua*) is common in low density (average cover 10 percent or less) along the banks of Sand Creek. These species provide a baseline for wetland vegetation success at the site, and will be used to establish a selection of wetland plants that are anticipated to be similarly successful in wetland mitigation areas.

3.5 Mitigation Area Creation

Wetland mitigation areas will be created within and adjacent to the Sand Creek active channel, allowing for sufficient natural hydrology to support wetland development. Areas around planned

grade control structures and along the active channel of Sand Creek have been identified as effective locations to establish wetlands. In accordance with Section 404 permit authorization and impacts resulting from development of Sterling Ranch Phase 2, mitigation areas totaling 3.11 acres will be established along the sides of the Sand Creek active channel (Appendix D: *Compensatory Mitigation Plan Map*).

Native wetland plant communities will be established within mitigation areas through natural succession and via transplanting. Effective mitigation is best accomplished through salvaging hydric soils and wetland vegetation on site. As much soil and vegetation as practicable will be salvaged from the western tributary and reestablished along Sand Creek in prepared mitigation areas. Salvage will occur outside of the primary growing season (May 1st through September 30th), with April and May being the best months for successful establishment. Salvage material will be replanted as quickly as practicable, and enough soil will be salvaged so as not to expose roots to direct sunlight. The presence of existing wetlands within close proximity to the proposed wetland mitigation areas are anticipated to facilitate rapid reestablishment of wetland vegetation. Additional transplanting of wetland vegetation from neighboring wetlands may be utilized to support establishment of vegetative cover if monitoring indicates it is necessary. Seeding of mitigation areas will supplement transplanting, or seeding alone will be used if materials for transplant are no longer available. Transplanting and seeding must occur within 3 days of topsoil removal unless delayed by weather, and neither shall occur when the ground is frozen. Wetland mitigation area construction and wetland soil salvage shall only be performed by a contractor qualified in wetland restoration/establishment.

The following seed mixes have been identified as suitable to the ecological setting and should be readily available. Species have been identified based on baseline information from the site and recommendations for revegetation along riparian areas of Colorado's eastern plains (Colorado DNR 1998). Two seed mixtures will be used in the stream channel, with the first six plants above comprising one mixture and the last nine comprising a second mixture. Having two mixtures will allow the obligate wetland species to be planted along the actively flowing channel, and the six grasses will be planted from the active channel edge outward, including sloped banks to uplands in need of reseeding.

Table 1. Wetland Seeding Mixes for Mitigation Areas

Common Name	Scientific Name (Variety)	Percent of Total Mixture	PLS (lb./acre) ¹
Switchgrass	<i>Panicum virgatum</i> (NE28, Greenville, Blackwell)	25	0.75 - 1.25
Prairie cordgrass	<i>Spartina pectinata</i>	20	1.40 - 1.60
Foxtail barley	<i>Hordeum jubatum</i>	20	1.20 - 2.00
Saltgrass	<i>Distichlis spicata</i>	15	1.05 - 1.50
Canada wildrye	<i>Elymus canadensis</i>	15	1.80 - 2.70
American sloughgrass	<i>Beckmannia syzigachne</i> (Egan)	5	0.04
TOTAL		100	6.64 - 9.89
Common spikerush	<i>Eleocharis palustris</i>	18	0.40 - 0.60
Arctic rush	<i>Juncus arcticus</i>	17	0.18 - 0.36
Hardstem bulrush	<i>Schoenoplectus acutus</i>	12	0.60 - 1.20
Softstem bulrush	<i>Schoenoplectus tabernaemontani</i>	12	0.60 - 1.20
Nebraska sedge	<i>Carex nebrascensis</i>	10	0.33
Water sedge	<i>Carex aquatilis</i>	10	0.03
Woolly sedge	<i>Carex pellita</i>	8	0.55 - 1.10
Torrey's rush	<i>Juncus torreyi</i>	8	0.09
Fowl mannagrass	<i>Glyceria striata</i>	5	0.49 - 0.84
TOTAL		100	3.27 - 5.75

Finally, the establishment of woody vegetation will be accomplished to help stabilize the channel and banks and contribute to the creation of mitigation areas. Sandbar willow cuttings from available willow saplings on the property will be replanted in wetland mitigation areas. Willows should be cut in the spring while plants are still dormant, typically before April 15th. Willow stakes will be used in wetland areas where ground water is within 2.5 feet of the surface, in densities of 1-3 feet apart.

Temporary impacts would result from grading at these locations to widen and broaden the channel where necessary to allow for improved grade and bank stability, thereby increasing the likelihood of wetland success. Temporary impacts would be restored to pre-construction conditions and transplanted or reseeded in the same manner as the rest of the mitigation areas.

An estimated schedule for mitigation implementation is outlined below:

- Year 1
 - Grading, clearing, and other site preparation as needed for construction of the wetland mitigation sites.
 - Documentation of baseline conditions and seeding of uplands.

- Year 2
 - Transplanting wetland soils and vegetation from the western tributary in the prepared mitigation sites.
 - Seeding with approved wetland seed mixes and cutting/transplanting of willows from willows on-site.
 - Control noxious weeds as needed.
 - Set up monitoring locations and begin collecting relevant data.
- Years 3, 4, and 5
 - Monitor mitigation sites and determine whether performance standards are being met. Year 3 corresponds to the first year (of three) for monitoring for success criteria.
 - If standards are met, request concurrence from USACE. If standards are not met, continue monitoring and implement adaptive management as necessary until standards are met.

3.6 Performance Standards & Monitoring Requirements

Performance standards will be used to assess the success of mitigation measures implemented in the project area. Performance standards are required and must be met in order for mitigation activities to be approved by the USACE. In accordance with the Section 404 authorization, the mitigation areas will be monitored for a period of three (3) years, or until the USACE has determined that performance standards are met, whichever comes first. If performance standards are met during the first year of monitoring, additional monitoring will not be required; only sites where standards are not met will continue to be assessed. Performance standards should be met by the end of the three-year monitoring period; if standards are not met within three years, additional monitoring may be required at the request of the USACE. The three-year minimum monitoring period will commence immediately following completion of the wetland mitigation areas.

The Proponent will be responsible for the activities at the proposed mitigation areas throughout the life of the Project. The Proponent, or an authorized representative of the Proponent, familiar with wetland ecology, will monitor the condition of the mitigation sites and make adjustments on an as-needed basis in accordance with USACE mitigation requirements and permit conditions.

The mitigation efforts outlined in this CMP will be determined successful and complete when the following standards of performance are met:

- Wetland mitigation areas will maintain a vegetative cover of at least 80 percent, and wetland vegetation must be composed of at least 50 percent wetland species (i.e. species rated facultative [FAC], facultative wetland [FACW], or obligate [OBL] on the USACE's National Wetland Plant List for the Great Plains Region). For mitigation areas not meeting these requirements, corrective measures may include transplanting appropriate wetland species and salvaged hydric soils or eradicating noxious weeds if they have become established.
- Coverage in wetland mitigation areas by noxious weeds will not exceed 5 percent of the total vegetative cover within the mitigation area. Plants listed as noxious weeds by the State of Colorado that are found in El Paso County are listed in Table 2 below.

- Upland mitigation areas are not planned and seeding with upland vegetation is not anticipated. However, if upland vegetation is established for any reason, the criteria for success will include vegetative ground cover of 85 percent by native upland species and less than one percent cover by invasive weeds.

Table 2. El Paso County Noxious Weed List

List A Species	
Cypress spurge	<i>Euphorbia cyparissias</i>
Dyer's woad	<i>Isatis tinctoria</i>
Bohemian knotweed	<i>Polygonum bohemicum</i>
Giant knotweed	<i>Polygonum sachalinense</i>
Japanese knotweed	<i>Polygonum cuspidatum</i>
Myrtle spurge	<i>Euphorbia myrsinites</i>
Orange hawkweed	<i>Hieracium aurantiacum</i>
Purple loosestrife	<i>Lythrum salicaria</i>
List B Species	
Absinth wormwood	<i>Artemisia absinthium</i>
Bouncingbet	<i>Saponaria officinalis</i>
Bull thistle	<i>Cirsium vulgare</i>
Canada thistle	<i>Cirsium arvense</i>
Chinese clematis	<i>Clematis orientalis</i>
Common teasel	<i>Dipsacus fullonum</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Dame's rocket	<i>Hesperis matronalis</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Hoary cress	<i>Cardaris draba</i>
Houndstongue	<i>Cynoglossum officinale</i>
Leafy spurge	<i>Euphorbia esula</i>
Musk thistle	<i>Carduus nutans</i>
Russian knapweed	<i>Acroptilon repens</i>
Russian olive	<i>Elaeagnus angustifolia</i>
Scentless chamomile	<i>Matricaria perforata</i>
Scotch thistle	<i>Onopordum acanthium</i>
List C Species	
Common mullein	<i>Verbascum thapsus</i>
Field bindweed	<i>Convolvulus arvensis</i>
Puncturevine	<i>Tribulus terrestris</i>

4 LONG-TERM MANAGEMENT

Funding for the management of the mitigation plan will be provided by the Proponent and the Proponent will be responsible for the monitoring and long-term management of the mitigation areas. Since the mitigation sites will be located on Proponent's property, access to the site can be controlled to protect the area. Access may be restricted, and preservation may be assured at mitigation sites through the use of a deed restriction if one is deemed necessary. In addition to regular monitoring of the site, periodic inspections will be conducted by the Proponent or by Proponent's authorized staff to ensure that the desired site characteristics are being maintained including maintaining proper hydrology through the mitigation area, controlling invasive plants (if any), and other maintenance as needed.

If invasive species are detected during inspections, invasive species control measures will be implemented. Where invasive plants are limited, control methods will consist of removal by hand or mechanical methods. If invasive plants become established beyond the ability of mechanical methods to control, chemical control methods will be used. Appropriate herbicides will be selected based on target species and will be applied in accordance with manufacturer and invasive species control recommendations. Herbicide application will not occur when rain is forecasted, or during or immediately following precipitation events to prevent herbicides from washing into sensitive water features. Invasive species control will be conducted in order to minimize impacts to desirable species to the extent practicable. Where significant infestations have occurred, following appropriate control and removal the area will be transplanted with local wetland plant sources, or re-seeded with desirable vegetation. Alternative methods of invasive species control will be utilized as appropriate based on target species. For example, prolonged flooding followed by heavy seeding has been documented to control Johnsongrass (*Sorghum halepense*).

Wetland and transitional vegetation will be mowed on an as-needed basis; signage may also be used along the boundaries of the mitigation area identifying the areas as such. If control of the development were to transfer to a different entity, that entity would become responsible for the maintenance and upkeep of the mitigation areas.

4.1 Post-Mitigation Monitoring

Protocols for post-mitigation monitoring have been established to ensure successful establishment of both restored and newly created habitats. It will be the Proponent's responsibility to ensure monitoring is performed, and it is recommended that the Proponent contract a qualified wetland ecologist to monitor for the successful establishment wetland mitigation areas and to perform noxious weed control. For such monitoring, the Proponent shall use a USACE-approved contractor. In addition to third-party monitoring by an approved ecologist, a representative from the USACE, with advance notice, shall be allowed to inspect the site conditions to determine the success of mitigation efforts. Monitoring protocols are summarized below.

4.1.1 Wetland Mitigation Monitoring

Immediately following the establishment of mitigation areas, a vegetation survey would be conducted within the mitigation areas to establish a baseline for vegetative development in future survey years. To measure the success of mitigation activities most accurately, monitoring would be conducted during the growing season of the following year after mitigation is completed. Monitoring will be continued until success criteria are met.

4.1.2 Mitigation Monitoring Reports

Results of the vegetation monitoring efforts will be assessed annually to determine the success of wetland mitigation area creation. Annual wetland mitigation monitoring will be conducted for three years following construction and habitat restoration, or until all measures of successful wetland mitigation have been met. Mitigation monitoring reports prepared by a qualified wetland ecologist will detail each measure of mitigation efforts based on the success criteria established in Section 3.6. Reports will be prepared following inspections during the growing season and sent to the USACE before the end of each calendar year. Mitigation monitoring reports will include recommendations for adaptive measures, if observations indicate that corrections are warranted. In addition, mitigation monitoring reports will include the following:

- A comparison between pre-construction site conditions to as-built surveys
- Maps depicting the limits of original wetlands/WOTUS prior to construction and a delineation of the limits of wetlands/WOTUS following the construction of mitigation areas.
- Photographs from established mitigation monitoring sample locations
- Data documenting whether each mitigation sites is achieving performance standards and an accompanying narrative
- Fish and wildlife observations at each of the mitigation sites
- A statement regarding the perceived success of the mitigation areas and any problem areas and recommended corrective actions
- Dates of field inspections

4.2 Adaptive Management

Adaptive management is a principle of resource management that dictates that management approaches and techniques should be flexible to revision and modification based on success/failure in order to meet goals. Management objectives and techniques may be modified in response to feedback, such as the results of mitigation monitoring. Adaptive management is based on the idea that our understanding of natural systems is incomplete, and thus should allow new information to influence potential re-evaluation of strategies for management.

Should the compensatory mitigation area fail to meet performance standards as stated in the monitoring plan, corrective action will be taken if necessary/appropriate, and may be taken prior to

the end of the monitoring period of five years. Mitigation monitoring or site inspection may reveal the need for additional, adaptive measures to be taken. Such measures could include improving hydrology, increased or alternative control measures for invasive species, streambank stabilization, or reseeded, replanting, or other modifications to vegetation management. The Proponent would be responsible for continued improvement of the mitigation area, including supplying additional hydrology, stabilizing streambanks, seeding, planting, or weed removal. The USACE will be notified of the need for such actions prior to further mitigation. It may also be necessary to adapt management practices for wetland mitigation areas based on future regulatory and legal developments regarding WOTUS. The Proponent agrees to adapt the management and mitigation practices outlined herein, if necessary, through consultation with the USACE and wetland ecologists.

Should you have any questions regarding the information or recommendations provided in this report, please feel free to contact Bristlecone Ecology at dmaynard@bristleconeecology.com.

Sincerely,

Bristlecone Ecology, LLC



Daniel Maynard
Ecologist

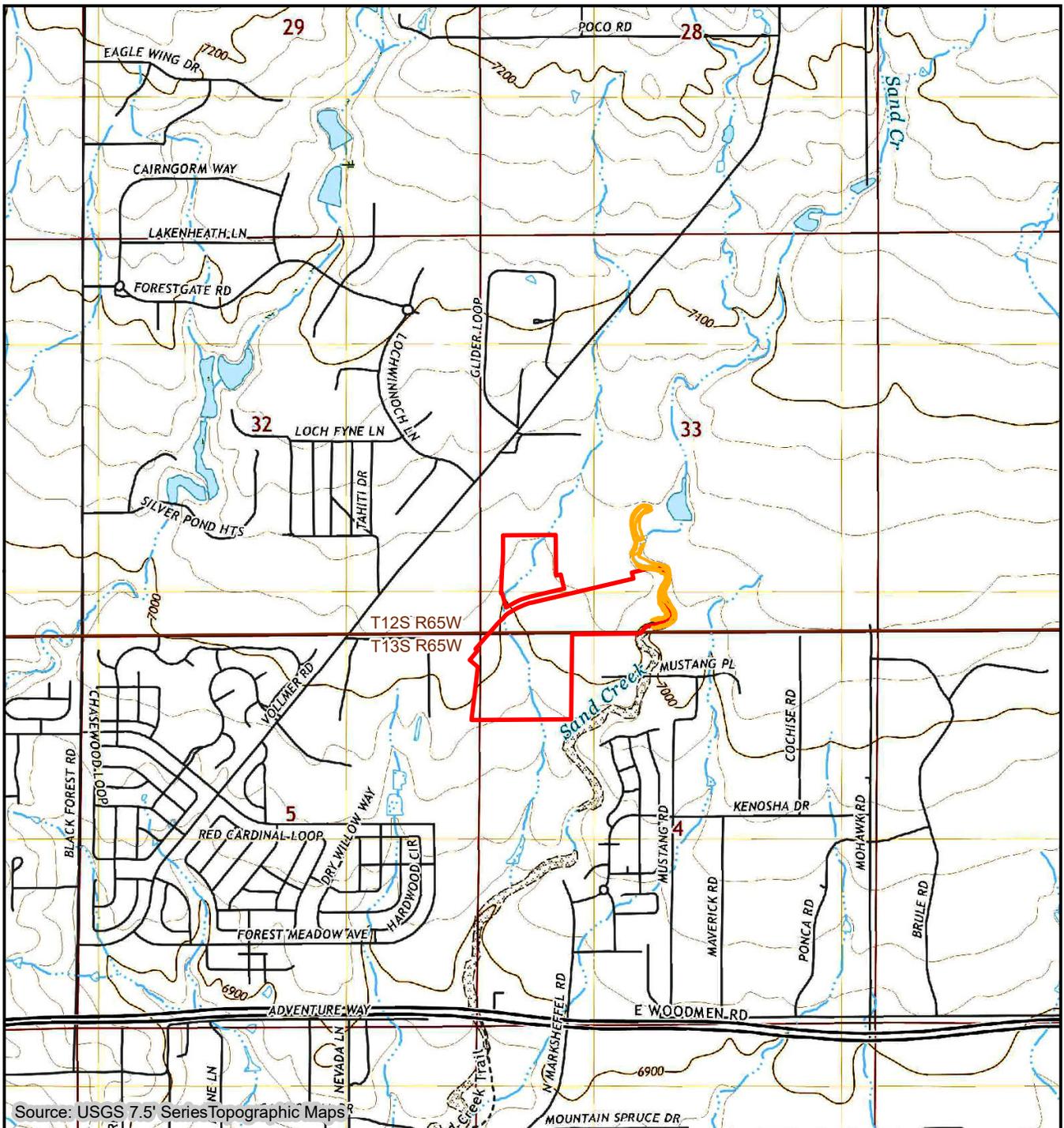
5 LITERATURE CITED

- Colorado DNR (Department of Natural Resources). 1998. Native plant revegetation guide for Colorado. Caring for the land series, Vol. III. In partnership with Colorado Natural Areas Program and Colorado State Parks. October 1998.
- EPC (El Paso County). 2017. El Paso County Noxious Weed Management Plan. Approved by Board of County Commissioners on December 28, 2017. <https://communityservices.elpasoco.com/wp-content/uploads/Environmental-Division-Picture/Noxious-Weeds/Weed-Management-Plan-December-2017.pdf>. Accessed May 2020.
- USGS (U.S. Geological Survey). 2019. Geographic map of the Falcon NW, CO quadrangle. Scale = 1:24,000.



APPENDIX A

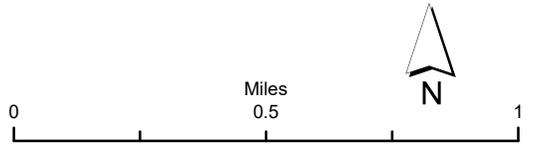
PROJECT LOCATION MAP



Source: USGS 7.5' Series Topographic Maps



- Project Area
- Mitigation Area



Sterling Ranch Phase 2

Project Location Map





APPENDIX B

PROJECT DESIGN PLANS

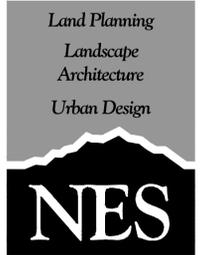
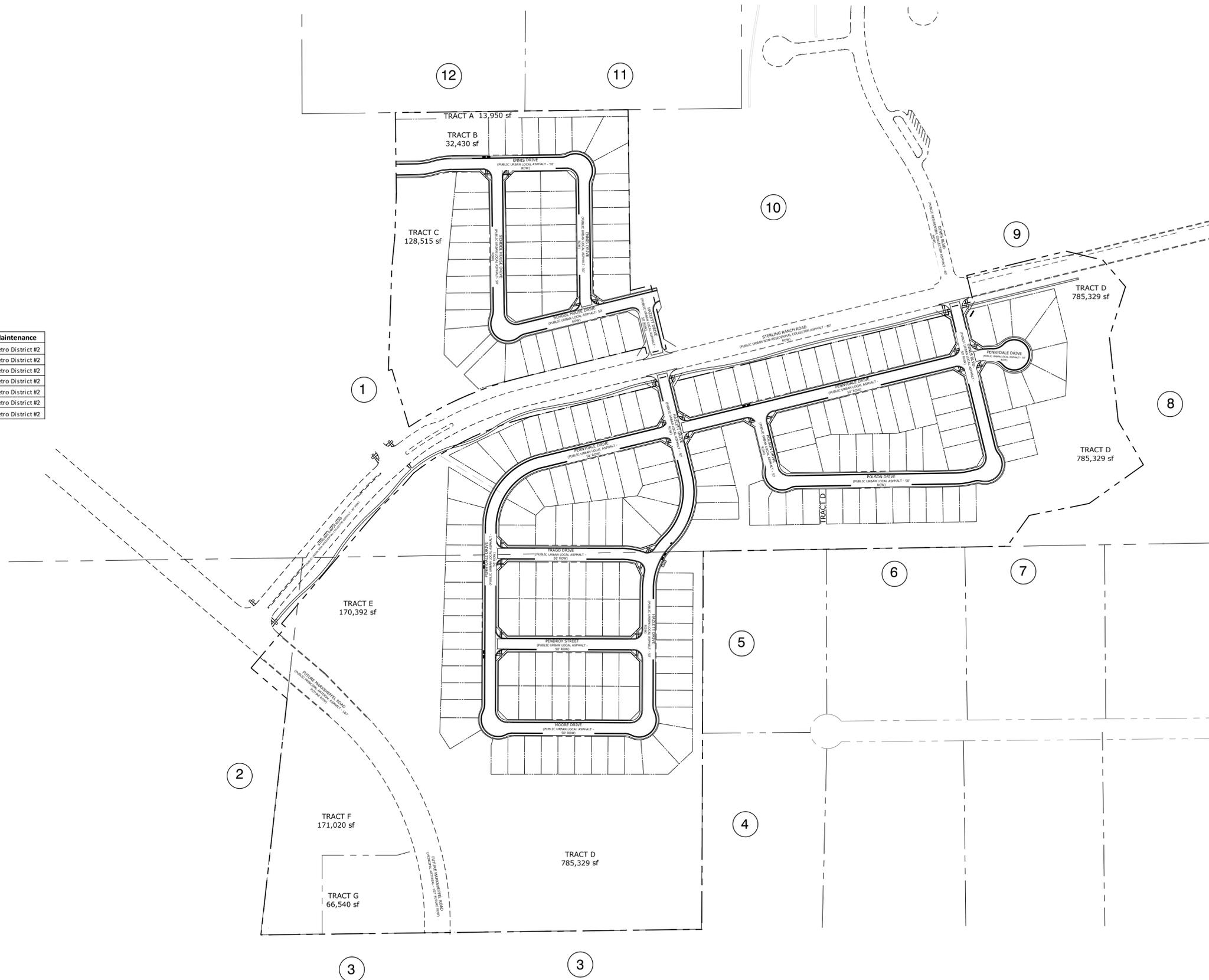
STERLING RANCH PHASE TWO PRELIMINARY PLAN EL PASO COUNTY, COLORADO

ADJACENT OWNERS TABLE:

	Name	Mailing Address	City, State, Zip
1	SR LAND LLC	20 BOULDER CRESCENT ST STE 102	COLORADO SPRINGS CO, 80903
2	8335 VOLLMER ROAD LLC, C/O PIONEER SAND CO	5000 NORTHPARK DR	COLORADO SPRINGS CO, 80918
3	RAO INVESTMENTS LLC	7910 GATEWAY E STE 102	EL PASO TX, 79915
4	BAKER ELSIE I TRUST	2524 MEADOWLARK LN	COLORADO SPRINGS CO, 80909
5	BAKER ELSIE I TRUST	2524 MEADOWLARK LN	COLORADO SPRINGS CO, 80909
6	PETE A & GRACE TRUJILLO	8170 MUSTANG PL	COLORADO SPRINGS CO, 80908
7	MARY J HOEPNER	8250 MUSTANG PL	COLORADO SPRINGS CO, 80908
8	MORLEY-BENTLEY INVESTMENTS LLC, TRADER VICS INVESTMENTS LP	20 BOULDER CRESCENT ST STE 100	COLORADO SPRINGS CO, 80903
9	SR LAND LLC	20 BOULDER CRESCENT ST STE 102	COLORADO SPRINGS CO, 80903
10	MORLEY-BENTLEY INVESTMENTS LLC, TRADER VICS INVESTMENTS LP	20 BOULDER CRESCENT ST STE 100	COLORADO SPRINGS CO, 80903
11	BR INVESTMENTS LLC	PO BOX 88120	COLORADO SPRINGS CO, 80908
12	HW DIESEL ENTERPRISES LLC	125 S CHESTNUT ST	COLORADO SPRINGS CO, 80905

TRACT USE CHART:

Tract	Area (SF)	Use	Ownership/Maintenance
A	13950	Landscape, Drainage, Trails	Sterling Ranch Metro District #2
B	32430	Landscape, Drainage, Trails, Mail Kiosk	Sterling Ranch Metro District #2
C	128515	Landscape, Drainage, Trails, Utilities	Sterling Ranch Metro District #2
D	785329	Landscape, Drainage, Trails, Utilities, Stormwater	Sterling Ranch Metro District #2
E	170392	Landscape, Drainage, Trails, Utilities, Park	Sterling Ranch Metro District #2
F	171020	Future Development, Drainage, Utilities	Sterling Ranch Metro District #2
G	66540	Lift Station	Sterling Ranch Metro District #2



N.E.S. Inc.
619 N. Cascade Avenue, Suite 200
Colorado Springs, CO 80903
Tel. 719.471.0073
Fax 719.471.0267
www.nescolorado.com
© 2012. All Rights Reserved.

STERLING RANCH PHASE 2 PRELIMINARY PLAN

El Paso County,
Colorado

DATE: 06.17.2020
PROJECT MGR: A. BARLOW
PREPARED BY: B. ITEN

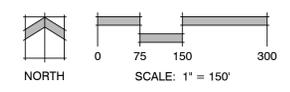
ENTITLEMENT

DATE:	BY:	DESCRIPTION:

ADJACENT OWNERS & TRACT PLAN

15

15 OF 15



P:\Morley\sterling ranch phase 2\Drawings\Planning\Develop\Sterling Ranch_Ph2_Prelim-Plan.dwg (Adjacent Property Owners Sheet 15) 6/16/2020 3:56:55 PM bblen



APPENDIX C

EXAMPLE DEED RESTRICTION

Appendix C: Deed Restriction

COVENANT OF DEDICATION

(PERMITTEE) now stipulates to the following statements of fact, and further agrees to restrict the use and title of the realty described in Attachment 1 to this document (hereinafter referred to as the "Land") in accordance with the terms and conditions set forth herein.

STIPULATIONS OF FACT

1. That (PERMITTEE) is the applicant for Department of the Army permit number (NUMBER) to place fill material in the wetlands located in (LEGAL DESCRIPTION); and that the U.S. Army Corps of Engineers has regulatory jurisdiction over the discharge of dredged or fill material into said wetlands pursuant to Section 404 of the Clean Water (33 USC 1344).

2. That (PERMITTEE) is the owner in fee of the real estate described in Attach 1.

3. That (PERMITTEE) and the Albuquerque District of the U.S. Army Corps of Engineers have reached an agreement whereby (PERMITTEE) will be permitted to discharge fill material in wetlands in accordance with the terms and conditions of Department of the Army permit number (NUMBER); and that in consideration for said discharge of fill material in the wetland, (PERMITTEE) will provide mitigation for the adverse environmental effects resulting from the placement of fill material in the wetland by dedicating the realty described in Attachment 1 for perpetual use as a conservancy area in accordance with the terms and conditions of this document and the above-mentioned permit.

4. That the above-mentioned dedication shall consist of the execution of this document by all parties necessary to restrict the use and title of the land; and that this document shall be recorded in the Office of the Register of Deeds for (COUNTY), (STATE).

5. That upon receipt of a certified copy of this document, as recorded in the Office of the County Register of Deeds for (COUNTY), (STATE), the District Engineer of the Albuquerque District of the U.S. Army Corps of Engineers will issue a validated permit, number (NUMBER) to (PERMITTEE); and that said permit shall be issued in consideration for the execution of this Covenant.

6. That the terms and conditions of this Covenant of Dedication shall, as of the date of execution of this document, bind (PERMITTEE) to the extent of his legal and/or equitable interest in the land; and that this Covenant shall run with the land and be binding on (PERMITTEE) and its successors and assigns forever.

7. That the terms and conditions of this Covenant shall be both implicitly and explicitly included in any transfer, conveyance, or encumbrance of the Land or any part thereof, and that any instrument of transfer, conveyance, or encumbrance affecting all or any part of the Land shall set forth the terms and conditions of this document either by reference to this document or set forth in full text.

DEED AND USE RESTRICTIONS

(PERMITTEE) hereby warrants that he is the owner in fee of the realty described in Attachment 1; and that the Land is hereby dedicated in perpetuity for use as a conservancy area.

(PERMITTEE) hereby agrees to restrict the use and title of the Land as follows:

1. There shall be no construction or placement of structures or mobile homes, fences, signs, billboards or other advertising material, or other structures, whether temporary or permanent, on the land.

2. There shall be no filling, draining, excavating, dredging, mining, drilling or removal of topsoil, loam, peat, sand, gravel, rock, minerals or other materials.

3. There shall be no building of roads or paths for vehicular or pedestrian travel or any change in the topography of the land.

4. There shall be no removal, destruction, or cutting of trees or plants; spraying with biocides, insecticides, or pesticides; grazing of animals, farming, tilling of soil, or any other agricultural activity. Management activities are acceptable upon approval from the Corps.

5. There shall be no operation of all-terrain vehicles or any other type of motorized vehicle on the land.

6. This Covenant of Dedication may be changed, modified or revoked only upon written approval of the District Engineer of the Albuquerque District of the U.S. Army Corps of Engineers. To be effective, such approval must be witnessed, authenticated, and recorded pursuant to the law of the State of (STATE).

This Covenant needs to be reviewed by the Corps of Engineers prior to signature to assure compliance with permit conditions.

COE representative's initial _____

7. This Covenant is made in perpetuity such that the present owner and its heirs and assigns forever shall be bound by the terms and conditions set forth herein.

By:
(PERMITTEE)

Executed before me this ____ day of _____, 20, by (PERMITTEE) who is personally known to me.

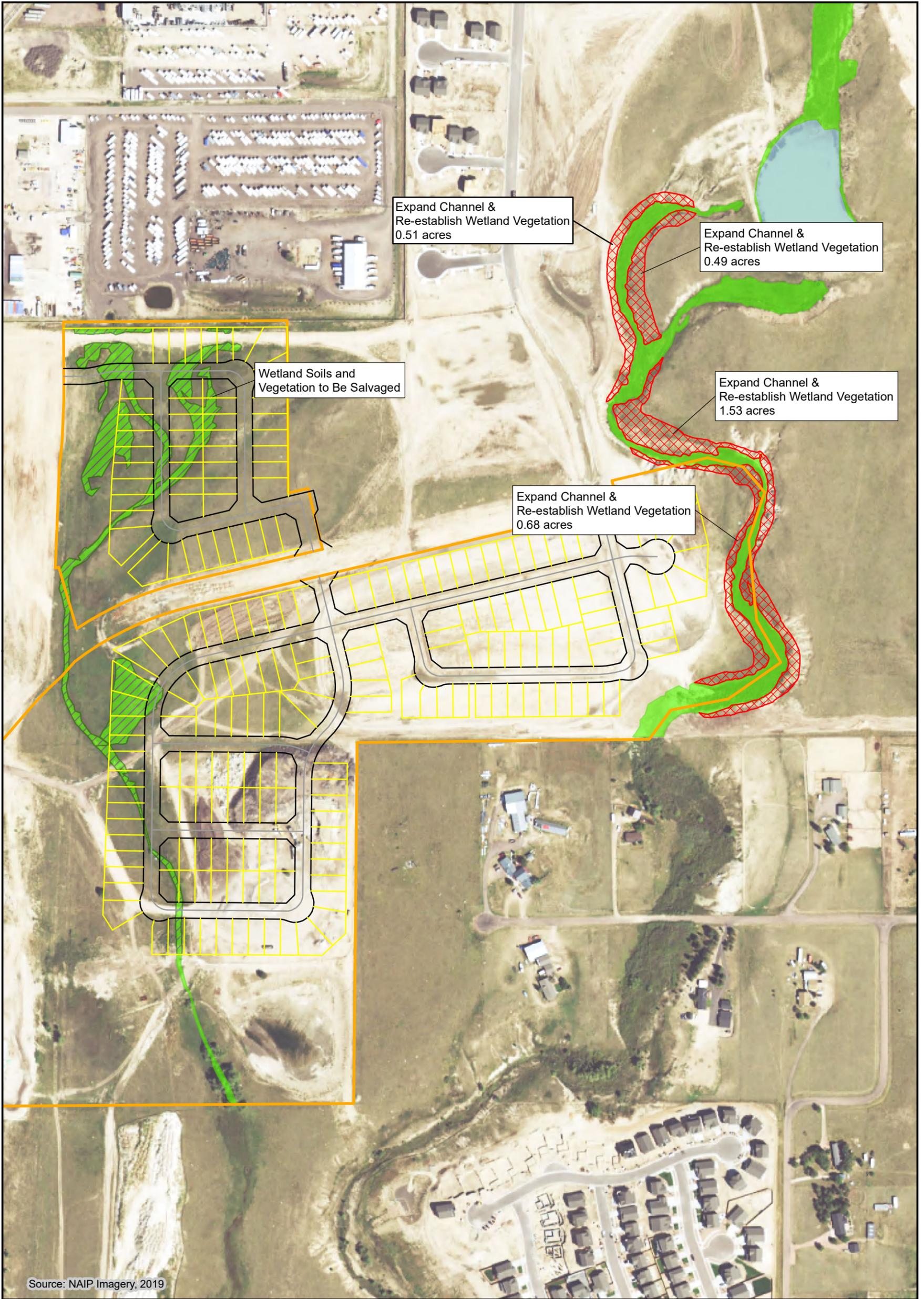
Notary Public

My commission expires _____



APPENDIX D

COMPENSATORY MITIGATION PLAN MAP



Source: NAIP Imagery, 2019



- Project Area
- Open Water
- Wetland
- Wetland Soils and Vegetation to Be Salvaged
- Mitigation Area
- Road Centerline
- Property Line
- Road ROW



1 in = 300 ft
Feet



Sterling Ranch Phase 2

Compensatory Mitigation Plan

