

Assignment 1 –Zone 6 Boundary Adjustment

Background:

During the July 2023 HCAC meeting, Rick Rosenberg presented an updated plan for a utility easement to access the St. George City substation located just outside Zone 6 (Figure 1). In subsequent meetings with the City and other local developers, it became apparent that there were several small boundary changes in this same area that could incorporate the easement road along with other minor changes to reduce utility impacts and improve recreation management while maintaining or improving the Reserve biological values and size.

When the Reserve Zone 6 was initially created, the east boundary followed the alignment of a 2-track utility road under a set a major power lines. Since then, a more current development plan (Figures 2-3) proposes a straightened realignment of this boundary road. If approved, this road could establish a new and more defined eastern boundary for the Reserve and ensure that future utility access and maintenance activities occur outside of the Reserve. The road would also provide entry into a City substation without passing through the Reserve. The developers are also planning to provide for better recreation management in Moe's Valley. Currently, parking for Moe's Valley occurs within the interior of Zone 6 and results in many habitat impacts. While camping is not allowed, some illegal camping still occurs and is difficult to enforce. The proposed plans include an established parking area to access Moe's Valley within their development and provides for a privately managed campground outside of the Reserve. Combined, the project proponents are currently proposing to offset 6.4 acres of habitat loss at the boundary, by adding 6.4-7.8 acres in the same general area.

On September 6-7, HCP staff conducted 10-meter belt transect surveys on all of the parcels proposed for possible inclusion in the boundary adjustment. No tortoise sign was observed along the utility road or south of the substation. Tortoise sign was observed in 3 of the potential incoming parcels (Attachment 1). In December 2021, USFWS provided specific guidance to evaluate Reserve boundary modifications (Attachment 2). This guidance was previously used to authorize a similar boundary adjustment in the Grapevine area in 2022.

TC Assignment:

1. Please review the proposed boundary change using the USFWS guidance and approved evaluation form.
2. Provide a recommendation to the HCAC and County regarding the project impacts and benefits to determine if the proposed project meets the biological conditions for boundary change. If it falls short, provide a recommendation on how it could meet the required conditions for a boundary change.

Washington County HCP Evaluation Form for Covered Activities in the Red Cliffs Desert Reserve

Proposed Project: Zone 6 Boundary Adjustment

Date Assigned by HCAC/County: July 2023

Requested Deadline: March 2024

Review Date: February 8, 2024 - Amended 6-10-2026

Alternatives Considered by Project Proponent & HCAC/County: Past alternatives for the substation access and bypass road were considered in 2022. The bypass road would have removed 20+ acres from the Reserve. Also in 2022, the County met with local rock climbers, St. George City and the developers at Quality Development to consider a Moes Valley trailhead in the Reserve which would have impacted 1-2 acres.

Project Description and Applicant Committed Measures:

When Reserve Zone 6 was initially created, the east boundary followed the alignment of a 2-track utility road under a set a major power lines. Since then, a more current development plan (Figure 1) proposes a straightened realignment of this boundary road. If approved, this road could establish a new and more defined eastern boundary for the Reserve and ensure that future utility access and maintenance activities occur outside of the Reserve. The road would also provide entry into a City substation without passing through the Reserve. The developers are also planning to provide for better recreation management in Moes's Valley. Currently, parking for Moes's Valley occurs within the interior of Zone 6 and results in many habitat impacts. While camping is not allowed, some illegal camping still occurs and is difficult to enforce. The proposed plans include an established parking area to access Moes's Valley within their development and provides for a privately managed campground outside of the Reserve. For the substation, the developer proposed adding Box Canyon (3.11 acres) to offset its 1.73 acres removed and for the 1.17 acres of the new road alignment. The other project proponent proposes to offset 3.5 acres of habitat loss from the boundary road and trailhead, by adding 3.5 acres in the same general area.

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In September of 2023, the TC provided a recommendation to the HCAC regarding the potential boundary adjustment in Zone 6. The committee supported the Box canyon parcel and recommended that approximately 3.5 acres of SITLA land to be added into the Reserve to offset removals from the boundary road and trailhead. This proposal was tabled after further discussion with HCAC members because SITLA expressed unwillingness to include any more of their lands in Zone 6. The local developer would now like the TC members to reconsider his private land offering as a suitable exchange for the boundary adjustment.

Related to the previous boundary proposal, at the January HCAC meeting, the more northerly portion of the boundary adjustment was discussed and a recommendation provided to allow the boundary adjustment for utility access into the substation, contingent on at least equal or more acres being acquired in Box Canyon, as the TC recommended in September of 2023. The latest recommendation essentially splits the past boundary adjustment proposal into two separate projects. However, as per the HCAC recommendation, any surplus land potentially acquired in Box Canyon, could be used to facilitate the boundary adjustment along the new road or Moes's Valley trailhead.

Effects Analysis: TC Committee evaluated the outgoing parcels 1a, 1b, and 2 (6.4 acres) against incoming parcels 1a, 1b, and 2b (7.8 acres). Parcel 2b was rejected due to isolation from the rest of the Reserve.

RESERVE VALUES	CURRENT CONDITION (No Action Alternative)	ANALYSIS OF PROJECT ACTIONS & CONSERVATION MEASURES Impacts	Benefits	Net Outcome
1. ANIMALS				
Direct Effects to Tortoises (use survey, if available)*	Low threat to tortoises due to current utility use and open road access	Minimal impacts due to no tortoise sign found in removal parcels, less occupied	Beneficial since most of the habitat added is occupied by tortoise	Habitat added is more occupied than the habitat removed, but the benefit is diminished by its limited culvert access.
2. RESERVE SIZE / SHAPE				
Permanent Impacts (acres) impacts 5+ years	No change	3.5 acres removed from Reserve	3.5 acres added to the Reserve	Acres added is equal in size and better habitat than acres removed. Current impacts in the Reserve from utility use can be shifted to occur outside of it. Area / perimeter ratio will not change significantly.
Temporary Impacts (acres) < 10 years to recover	Utilities are in or adjacent to Reserve and parking for Moes Valley occurs inside the Reserve	None, impacts will occur outside of Reserve	Utility use and maintenance & Moes Valley trailhead parking will shift impacts to outside of Reserve	
Reserve Area: Perimeter Ratio	28606 m / 6812 acres = 4.2	Slight increase to area : p ratio	29019 m / 6813 acres = 4.26	
3. RANGE INTACTNESS (± 0-2)**	0	0	0	No change.
4. CONNECTIVITY (± 0-2)**				
Fragmentation of habitat (+, -, or 0)	0	minus	plus	Habitat added would be fragmented along 60 m by a fenced road. This would be partially mitigated by addition of a culvert at a centrally located area.
Barriers (m)	0	60 m	culvert access	
Crossing structures (# or per m)	0	0	1 / 60 meters	
5. CONDITION				Habitat quality is improved since the

Habitat Quality (1-3)*** and Effects to Habitat Quality	Utility road with development expected in near future.	1: Outgoing habitat is heavily disturbed by roads and parking areas. Mitigation parcel provides habitat but is surrounded by private property and future development.	2 & 3: Most of the incoming habitat is high quality, but there is some that has recreational impacts, and is adjacent to popular recreation area.	habitat coming in is occupied by tortoise and is ranked higher quality than the habitat going out. The future utility/recreation disturbances will occur more largely outside of the Reserve.
OTHER CONSIDERATIONS (if applicable)				
Effects to adjacent habitat or other concerns?	Illegal camping and OHV use still occurs at low levels inside the Reserve in this area. High fire threat.	None, future impacts will mostly occur outside of the Reserve.	Impacts from camping, parking, trailhead use, restrooms and utility access will now occur on private property instead of in the Reserve, potentially reducing wildfire danger within the Reserve.	This project can be beneficial since the impacts from camping, parking, trailhead use, restrooms and utility access will now occur on private property instead of in the Reserve, potentially reducing wildfire danger within the Reserve.

* Results of tortoise survey should be provided to establish number of tortoises under current condition; if absent, use nearest density estimates.

** 2 = significant effects (addition or removal of barriers / mitigation), 1 = minor changes to habitat quality that could effect movement

*** 3 = high quality, unburned or recovered, dense coverage of forage plants, little to no disturbance, invasive plants not dominant;

1 = low quality, multiple burns, considerable disturbance, invasive plants prevalent; 2 = moderate habitat conditions relative to categories 1 and 3.

Summary of Net Outcomes

The habitat coming into the Reserve is of better quality and less impacted than the habitat going out. Tortoises will be better protected when the project is complete and fencing is installed along the new boundary. Although 60 meters of the habitat coming into the Reserve would be fragmented by a future road, this is largely offset by the fact that it is occupied habitat of better quality and access will be provided by construction of a culvert under the road. Future utility access and maintenance can occur more easily outside of the Reserve. Recreational impacts can also be largely shifted to occur outside of the Reserve with the new trailhead, restrooms and camping area on private property. The Reserve size and and shape remains relatively the same with a slight increase in area to permitter ratio. The TC recognizes that this proposal represents an exceptional circumstance with a fragmented mitigation area that would only be reachable by tortoises via culvert crossing. This type of mitigation area would not generally be considered acceptable to fully offset project impacts due to issues with Reserve design and connectivity. However, in this case the habitat being removed from the Reserve is degraded and unoccupied, and the fragmented mitigation parcel is minimally impacted and occupied habitat. Recent culvert studies in the Reserve show that tortoise will use culverts for passage and sheltering, potentially indicating that access to the mitigation area could be viable. Therefore, this should be considered an unusual instance where a fragmented parcel will fully offset project impacts. The developer's commitment to locate the Moe's Valley trailhead/parking area outside of the Reserve boundaries would mitigate the current heavy parking usage occurring within Reserve boundaries. This action would reduce threats to tortoise including from vehicle related mortalities, increased risk of fire, and motorized vehicle intrusion into the core of Zone 6. Designated step-overs will help to confine non-motorized recreation to authorized trails. Due to these exceptional circumstances, we emphasize that this project should not set a precedent for future mitigation proposals with fragmentation impacts.

Additional Recommended Conservation Measures To Reach No Net Loss Goal (only if summary of net outcomes is negative)

Other Recommended Conservation Measures (UDPs, biological monitor, tortoise awareness training, etc.)

UDPs should be followed during construction of the new road, trailhead and fence. Developers should coordinate with HCP regarding signage and educational information at trailhead. Fencing along the new roadway, trailhead and substation should be coordinated with the HCP office to ensure that is completed prior to any ground disturbing activities. Culvert dimensions/design should also be coordinated with the HCP. The project proponent is expected to conduct ongoing maintenance/repairs on the fencing (both the mitigation parcel and area adjacent to new roadway), in addition to the culvert which should be kept clear of debris to ensure tortoise passage. The County HCP will commit to install a game camera at the culvert to monitor this site for at least 2 seasons. This will help inform mitigation effectiveness for future projects that might have fragmentation impacts.

TC Member Evaluations: (independent evaluations or considerations from TC members not already captured above)

Please see new figure which amends the boundary of the mitigation area. New mitigation area is also 3.5 acres and has similar or better habitat than that analyzed in 2024.

Additional USFWS Guidance on Implementing Incidental Take Authorization in the Reserve:

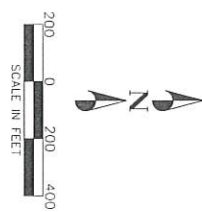
The County should utilize its advisory bodies of the HCAC and TC to evaluate projects resulting in incidental take in the Reserve and Covered Activities should only be authorized on 200 acres within the Reserve for the duration of the Amended ITP term (5.3 & 7.3 Amended HCP). As per 5.3 of the Amended HCP, Conservation measures that address HCAC or TC recommendations for offsetting impacts to MDT taken by Covered Activities inside the Reserve may include the following: the acquisition and permanent protection of MDT habitat outside of the Reserve at impact-to protection ratios consistent with guidance in the DTMOG (1991); case-by-case consideration for conservation credit generated by actions that enhance connectivity of MDT habitat across the Plan Area, restore degraded MDT habitat, or prevent wildfire within the Reserve, control invasive species within the Reserve, or contribute to MDT head-starting or population augmentation efforts within the Plan Area; or conservation credit acquired from in-lieu fee programs or third party conservation banks if such program becomes available in the future. USFWS further recommends that acre for acre mitigation be the highest priority for addressing permanent impacts and should be considered prior to alternative conservation measures listed above. USFWS also recommends that the fee-in lieu of mitigation option only be utilized for projects less than 1 acre of permanent impacts and with the condition that the Reserve remain of equal or larger size. The following are additional recommendations for the permanent impacts analysis:

Remuneration rates (i.e., ratio) are determined using a five factor rubric:

- o Habitat Category ranking I, II, or III are given scores of 3, 2, or 1, respectively.
- o If the affected habitat is categorized as I or II the following scores are added to the ratio:
 - o the impact will be less than 10 years (score = 0) or longer than 10 years (1);
 - o Site disturbance prior to the action is "moderate" or worse (0) or little (1);
 - o The proposed action will likely support human population growth, community expansion, development, or other related activities in the vicinity (0.5) or it is not anticipated to do so (0); and
 - o The proposed action is not anticipated to have direct or indirect effects on adjacent tortoise habitat or populations (0), or it is anticipated to have either direct or indirect effects to habitat or populations (0.5).
- o If the affected habitat is categorized as III, the maximum compensation ratio is 1 regardless the other factors (DTCT 1991, page 7).

The criteria used to categorize tortoise habitat include (1) importance of the habitat in maintaining viable tortoise populations, (2) the resolvability of conflicts associated with the habitat, (3) tortoise density, and (4) tortoise population trends (Spang et al. 1988, page 12). Scores from the rubric are summed to produce the rate for compensation, except for Category III habitats.

Remuneration fees for habitat disturbance in Utah must be provided to the National Fish and Wildlife Foundation prior to surface disturbing activities associated with the proposed project (FWS Region 6 Omnibus Escrow Account, Utah Desert Tortoise sub-account). The fees are adjusted for inflation annually (October) relative to a rate of \$754 per acre in 2010 using the Composite Consumer Price Index (CPI) calculator (https://www.bls.gov/data/inflation_calculator.htm). As of September 2022, the rate is \$1,033 / acre.

[illegible]

--- EXISTING RIGHT OF WAY LINE
 --- EXISTING PROPERTY LINE
 --- ONE --- GUN --- EXISTING OVERHEAD POWER LINE
 --- EXISTING FENCE
 --- X --- X --- X PROPOSED TORTOSE FENCE

[illegible]

SHEET NAME: **TORTOISE FENCE PLAN**

113 East 200 North Suite #2
St. George, UT 84770
Office (435) 628-2121



DATE	JUNE 2006
PM	LB
SHAWN BR	LB
DIONARIO BR	LB
CHECHARD BR	BR
PROJECT NO.	21-028
SCALE	1" = 200'
SHEET NUMBER	

TF-3