

APPENDIX A – INITIAL STUDY CHECKLIST



APPENDIX A

INITIAL STUDY CHECKLIST

HIGHWAY 127 BAKER TO NTC PROJECT

SAN BERNARDINO COUNTY, CA

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April 2015

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SECTION 1.0 – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

1.1 DETERMINATION

On the basis of this initial evaluation:

1. I find that the project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐
2. I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☒
3. I find the proposed project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐
4. I find that the proposed project **may have a "potentially significant impact" or "potentially significant unless mitigated impact"** on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed. ☐
5. I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Signature

Date

Name, Title

SECTION 2.0 – EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to less than significance

*Note: Instructions may be omitted from final document.

SECTION 3.0 – CHECKLIST OF ENVIRONMENTAL ISSUES

3.1 AESTHETICS

3.1.1 Environmental Setting

Please refer to Section 4.1.2, Aesthetics and Visual Resources of the EA/MND for discussion of the affected environment/environmental setting.

1.	AESTHETICS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.1.2 Impact Analysis

Please refer to Section 4.1.4, Aesthetics and Visual Resources of the EA/MND for discussion of the impacts related to aesthetics and visual resources.

3.2 AGRICULTURE & FORESTRY RESOURCES

2.	<p>AGRICULTURE & FORESTRY RESOURCES. (In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.) In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.) Would the project:</p>	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or the conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Impact Analysis

Please refer to Section 4.11.3, Land Use and Planning of the EA/MND for discussion of the impacts related to land use.

3.3 AIR QUALITY

3.3.1 Environmental Setting

Please refer to Section 4.2.2, Air Quality of the EA/MND for discussion of the affected environment/environmental setting.

3.	AIR QUALITY. (Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.) Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.2 Impact Analysis

Please refer to Section 4.2.4, Air Quality of the EA/MND for discussion of the environmental impacts related to air quality.

3.4 BIOLOGICAL RESOURCES

3.4.1 Environmental Setting

Please refer to Section 4.3.2, Biological Resources – Vegetation, and Section 4.4.2, Biological Resources – Wildlife of the EA/MND for discussion of the affected environment/environmental setting.

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.4.2 Impact Analysis

Please refer to Section 4.3.4, Biological Resources – Vegetation, and Section 4.4.4, Biological Resources – Wildlife of the EA/MND for discussion of the environmental impacts related to biological resources.

3.5 CULTURAL RESOURCES

3.5.1 Environmental Setting

Please refer to Section 4.5.2, Cultural Resources of the EA/MND for discussion of the affected environment/environmental setting.

5.	CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.	CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5.2 Impact Analysis

Please refer to Section 4.5.4, Cultural Resources of the EA/MND for discussion of the environmental impacts related to historical, archaeological, and paleontological resources.

3.6 GEOLOGY AND SOILS

3.6.1 Environmental Setting

Please refer to Section 4.7.2, Geology and Soils of the EA/MND for discussion of the affected environment/environmental setting.

6.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.6.2 Impact Analysis

Please refer to Section 4.7.4, Geology and Soils of the EA/MND for discussion of the environmental impacts associated with geology and soils.

3.7 GREENHOUSE GAS EMISSIONS

3.7.1 Environmental Setting

Please refer to Section 4.8.2, Greenhouse Gas Emissions of the EA/MND for discussion of the affected environment/environmental setting and methodology.

7.	GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.2 Impact Analysis

Please refer to Section 4.8.4, Greenhouse Gas Emissions of the EA/MND for discussion of the environmental impacts related to greenhouse gas emissions.

3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 Environmental Setting

Please refer to Section 4.9.2, Health and Safety/Hazardous Materials of the EA/MND for discussion of the affected environment/environmental setting.

8.	HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.2 Impact Analysis

Please refer to Section 4.9.4, Health and Safety/Hazardous Materials of the EA/MND for discussion of the environmental impacts related to hazards and hazardous materials.

3.9 **HYDROLOGY AND WATER QUALITY**

3.9.1 Environmental Setting

Please refer to Section 4.10.2, Hydrology and Water Quality of the EA/MND for discussion of the affected environment/environmental setting.

9.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or offsite.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j)	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.2 Impact Analysis

Please refer to Section 4.10.4, Hydrology and Water Quality of the EA/MND for discussion of the environmental impacts related to hydrology and water quality.

3.10 **LAND USE AND PLANNING**

Please refer to Section 4.11.2 Land Use and Planning of the EA/MND for discussion of the affected environment/environmental setting.

10.	LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.10.1 Impact Analysis

Please refer to Section 4.11.3, Land Use and Planning of the EA/MND for discussion of the environmental impacts related to land use and planning.

3.11 MINERAL RESOURCES

3.11.1 Environmental Setting

Natural mineral deposits are nonrenewable resources that cannot be replaced once they are depleted. The Proposed Project alignment is located within an area that has a high concentration of mineral resources. The primary minerals within the vicinity of the Project Route include carbonate rock, quartzite, talc, volcanic cinders, and turquoise. These minerals are abundant throughout the region and have been mined in the past from the numerous scattered mines in the general area (California Department of Conservation 1984). There are various open and closed mines within proximity to the Project Route (Google Earth 2014).

11.	MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.2 Impact Analysis

- (a) The Proposed Project would consist of installation activities along an approximately 12.25-mile route. Additionally, the Project Route would not be used for mineral resource extraction due to the location within existing roadway ROW. The Proposed Project would conform to all governing

agency standards and not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impact would occur.

- (b) No known locally-important mineral resources are present within the Project Route. The Proposed Project would consist of installation activities along an approximately 12.25-mile route. Additionally, the Project Route would not be used for mineral resource extraction due to the location within roadway ROW. Implementation of the Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan other land use plan. No impact would occur.

3.12 NOISE

3.12.1 Environmental Setting

Please refer to Section 4.12.2, Noise of the EA/MND for discussion of the affected environment/environmental setting.

12.	NOISE Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.2 Impact Analysis

Please refer to Section 4.12.4, Noise of the EA/MND for discussion of the environmental impacts related to noise.

3.13 POPULATION AND HOUSING

13.	POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

13.	POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Impact Analysis

- (a) The Proposed Project is limited to installation activities along an approximately 12.25-mile route, generally follow SR 127 with roadway ROW. The Proposed Project would not involve the construction of new housing or new roads or an expansion of infrastructure that could induce population growth. No impact would occur.
- (b) The Proposed Project is limited to installation activities along an approximately 12.25-mile route and would not involve the displacement of existing housing. No impact would occur.
- (c) The Proposed Project is limited to installation activities along an approximately 12.25-mile portion of an existing FOC route and would not displace people or necessitate the construction of replacement housing. No impact would occur.

3.14 PUBLIC SERVICES

14.	PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Impact Analysis

Please refer to Section 4.13.3, Public Services and Utilities of the EA/MND for discussion of the environmental impacts regarding need for new or physically altered government facilities.

3.15 RECREATION

15.	RECREATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Impact Analysis

- (a) through (b). The Proposed Project does not involve uses that would contribute to the increased use of existing neighborhood, regional parks or other recreational facilities such as substantial deterioration of the facility. The Proposed Project does not include recreational facilities or require the construction or expansion of existing recreational facilities. No impacts would occur.

3.16 TRANSPORTATION/TRAFFIC

16.	TRANSPORTATION/TRAFFIC. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

16.	TRANSPORTATION/TRAFFIC. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Impact Analysis

Please refer to Section 4.14.3, Transportation and Traffic of the EA/MND for discussion of the environmental impacts related to transportation and traffic.

3.17 UTILITIES AND SERVICE SYSTEMS

17.	UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Require or result in the construction of new water or wastewater treatment facilities (including sewer (waste water) collection facilities) or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Have sufficient water supplies available to serve the project (including large-scale developments as defined by Public Resources Code Section 21151.9 and described in Question No. 20 of the Environmental Information Form) from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g)	Comply with federal, state, and local statutes and regulations related to solid wastes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.17.1 Impact Analysis

Please refer to Section 4.13.3, Public Services and Utilities of the EA/MND for discussion of the environmental impacts related to utilities and service systems.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

18.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.18.1 Impact Analysis

- (a) The Proposed Project involves installation activities along the along the approximately 12.25-mile Project Route that roughly parallels SR 127, from the intersection of Mill Road and Baker Boulevard to the NTC site. With the implementation of Applicant-Initiated Environmental CMs and mitigation measures (MM), the Proposed Project would not substantially degrade the quality of the existing environment; reduce habitat of fish or wildlife species; threatened plant or animal communities; reduce the number of restrict range of rare plants or animals; or eliminate important examples of the major period of California history or prehistory.

Implementation of the Proposed Project may generate short-term fugitive dust and a nominal amount of greenhouse gas emissions from the use of construction equipment. Fugitive dust would be controlled by adherence to the MDAQMD fugitive dust rules.

Biological resources including sensitive vegetation and wildlife species have the potential to present within the Project Route. Implementation of biological resource CMs, minimization measures, and mitigation measures would reduce impacts to less than significant.

Cultural resources have been identified within the APE of the Project Route that could be impacted by project construction. Additionally, the majority of the Project Route is located in areas that have rock units that are moderate to high in possibility to have significant fossil resources present. Implementation of mitigation measures would reduce impacts to less than significant.

Recommended Mitigation Measures

No mitigation would be required beyond the measures defined previously in this document.

- (b) The potential for cumulative impacts occurs when the independent impacts of the Proposed Project are combined with the impact of related projects in proximity to the Proposed Project such that impacts occur that are greater than the impacts of the project alone. As discussed above, with the incorporation of Applicant-Initiated Environmental CMs and mitigation measures, it has been determined that the Proposed Project would have no impact, or impacts would be less than significant, with respect to the environmental issues. Mitigation measures previously described would reduce the impacts to a *less than significant* level.

Recommended Mitigation Measures

No mitigation would be required beyond the measures defined previously in this document.

- (c) Installation activities associated with the Proposed Project would not result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Mitigation measures previously described would reduce any impacts to a *less than significant* level.

Impacts and Mitigation Measures

No mitigation would be required beyond the measures defined previously in this document.

SECTION 4.0 – SOURCE REFERENCES

The following is a list of references used in the preparation of this document. Unless attached herein, copies of all reference reports, memorandums and letters are on file with the County. References to Publications prepared by federal or state agencies may be found with the agency responsible for providing such information.

California Department of Conservation

1984 Mineral Land Classification of the Halloran Spring 15 Minute Quadrangle, San Bernardino County, California. San Bernardino County Important Farmland 2010. DMG Open-File Report 84-51.

Google Earth

2013 Mineral Resource Data System

SECTION 5.0 – REPORT AUTHORS AND CONSULTANTS

Please refer to Section 8.0, List of Preparers, of the EA/MND for the list of report authors and consultants.

APPENDIX B – MITIGATION MONITORING AND REPORTING PLAN



D R A F T MITIGATION MONITORING AND REPORTING PROGRAM AT&T Fiber-Optic Cable Installation Project Highway 127 Baker to Fort Irwin National Training Center						
	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring Responsibility	Monitoring Method	Monitoring Compliance Record (Name/Date)
Biological Resources – Vegetation						
MM-Vegetation-1:	Where impacts to native vegetation may not be avoided, the seed bank and topsoil will be left intact, allowing for seeds of sensitive plants to remain in place, if present, and therefore germinate in the future. The seed bank and topsoil will be left intact utilizing the following method: <ul style="list-style-type: none">Within minimal use areas where equipment or vehicle tracks may make a single or few passes within vegetation, no grading will occur. Any tracks or ruts created by equipment passes will be raked or swept to carefully smooth out the topsoil.	Contractor	During construction activities.	Biological monitor	Biological monitor to maintain daily monitoring logs.	
MM-Vegetation-2:	If sensitive plant species are observed within the Project Route and impacts cannot be avoided, the following measures would be implemented at the discretion of the biologist: <ul style="list-style-type: none">Healthy, sensitive plant species, suited for salvage and transplanting, and young perennial woody shrubs, would be salvaged and transplanted into suitable habitat outside the AT&T ROW. Salvaged plants would be kept in an onsite nursery under shade cloth and watered as needed based on soil moisture levels until translocation can occur.Seeds from sensitive annual plant species or other individuals that cannot be salvaged would be collected and dispersed into the AT&T ROW after construction and when no further ground disturbance is expected.If transplanting and seed collection are not possible, the contractor would bore under sensitive plant species populations within the AT&T ROW to avoid impacts, to the greatest extent possible.If transplanting and seed collection are not possible, the contractor will salvage the top 4 inches of soil (topsoil), as described in the Project approved Vegetation Restoration Plan, from vegetated areas within the disturbance area. The topsoil will be replaced once construction is complete in that area.	Biological Monitor/Contractor	During construction activities.	Biological monitor	Biological monitor to maintain daily monitoring logs.	
Biological Resources – Wildlife						
MM-Wildlife-1:	In the event that a burrowing owl is found present within or near the Project ROW during the burrowing owl nonbreeding season (September 1 to January 31) and if avoidance is not possible, a Burrowing Owl Mitigation and Monitoring Plan shall be submitted to CDFW for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. <ul style="list-style-type: none">If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The Plan shall also describe proposed offsite areas to preserve to compensate for impacts to burrowing owls/occupied burrows on the Project.As compensation for the direct loss of burrowing owl nesting and foraging habitat, the Applicant shall mitigate by acquiring and permanently protecting 6.5 acres calculated on a 10-meter foraging radius of known burrowing owl nesting and foraging habitat for every pair or unpaired burrowing owl impacted by the project (those owls that required relocation because their burrows were directly impacted). The Applicant shall set-up a nonwasting endowment account for the long-term management of the preservation site for burrowing owls. The site shall be managed for the benefit of burrowing owls. The preservation site, site management, and endowment shall be approved by CDFW.	Biological Monitor	Prior to and during construction activities	Biological monitor	Biological monitor to maintain daily monitoring logs.	
MM-Wildlife-2:	If an injury or death of a listed species should occur due to Project activities, the biologist shall notify BLM immediately and no later than 24 hours following the incident, including: <ul style="list-style-type: none">The date and time of the finding or incident (if known)Location of the carcass or injured animalA photograph, cause of death, if known, and any other pertinent information	Biological Monitor	During construction activities	Biological monitor	Biological monitor to maintain daily monitoring logs.	

D R A F T MITIGATION MONITORING AND REPORTING PROGRAM AT&T Fiber-Optic Cable Installation Project Highway 127 Baker to Fort Irwin National Training Center						
	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring Responsibility	Monitoring Method	Monitoring Compliance Record (Name/Date)
MM-Wildlife-3:	Upon locating a desert tortoise dead or injured as a result of project activities, the biologist shall notify BLM, CDFW, and USFWS in writing within five days of the finding. If a tortoise is killed by project activities, it shall be salvaged according to Salvaging Injured, Recently Dead, Ill, And Dying Wild, Free-Roaming Desert Tortoise (Gopherus agassizii) prepared by Kristin Berry, June 2001. The permittee shall pay to have these tortoises necropsied. The information provided will include: <ul style="list-style-type: none">The date and time of the finding or incident (if known)Location of the carcass or injured animalGeneral circumstances under which it was foundA photograph, cause of death, if known, and any other pertinent information	Biological Monitor	During construction activities	Biological monitor	Biological monitor to maintain daily monitoring logs.	
MM-Wildlife-4:	Listed animals injured by project activities shall be transported by the authorized biologist to the nearest qualified veterinarian for treatment. Costs incurred for treatment will be paid for by AT&T. If the animal recovers, CDFW and USFWS will be contacted for final disposition of the animal.	Biological Monitor	During construction activities	Biological monitor	Biological monitor to maintain daily monitoring logs.	
Cultural Resources						
MM-Cultural-1:	<ul style="list-style-type: none">Due to the presence of several archaeological sites within and in the immediate vicinity of the project area a qualified archaeological monitor and a trained Native American cultural monitor shall be present during all ground disturbing activities related to the project.	Archaeological Monitor	Prior to and during construction activities	Archaeological monitor	Archaeological monitor to maintain daily monitoring logs.	
MM-Cultural-2:	<ul style="list-style-type: none">To minimize the potential impacts to paleontological resources, a paleontological monitor should be present in areas with surficial geologic units of high sensitivity to monitor ground-disturbing activities.	Paleontological Monitor	Prior to and during construction activities	Paleontological monitor	Paleontological monitor to maintain daily monitoring logs.	

APPENDIX C – APPLICANT-INITIATED ENVIRONMENTAL CONSTRUCTION MEASURES



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APPLICANT-INITIATED ENVIRONMENTAL CONSTRUCTION MEASURES

In order to minimize adverse impacts to the environment, AT&T would be required to comply with BLM standard operating procedures (SOP) for the use of public lands as required by law, regulation, and/or other BLM guidelines and County of San Bernardino guidance. The following Applicant-Initiated Environmental CMs would be employed by AT&T and/or the construction superintendent.

General Commitments

- CM-1.1: No wetlands will be filled or disturbed.
- CM-1.2: All Project activities would be confined to the Project Route and approved access roads and storage areas. The Project construction boundaries would be clearly delineated with fencing, stakes, or flagging. If unforeseen circumstances require disturbance beyond the Project Route, AT&T would notify the BLM or the County of San Bernardino immediately, as appropriate. AT&T would not create any new dirt or paved roads. Leftover excavated material shall not be left in place, but would be disposed of in designated areas and in a manner approved by BLM and the County of San Bernardino.
- CM-1.3: Biological and cultural resource monitors will be present for the construction disturbance areas for sensitive resources.
- CM-1.4: All construction equipment and personnel will be confined to the Project ROW.
- CM-1.5: A spill prevention and response plan will be prepared prior to construction and implemented.
- CM-1.6: All cable installation debris, construction spoils, remaining installation materials, and miscellaneous litter will be collected for proper offsite disposal.
- CM-1.7: No pets or firearms (excluding law enforcement personnel) are to be permitted on the Project Route.
- CM-1.8: AT&T would implement a trash-abatement program during pre-construction phases of the Project and would continue the program throughout the duration of Project construction. No trash would be left onsite. All trash and food items would be contained within Project vehicles and not left on the roadside or out in the open. Trash and food items would be disposed of promptly in predator-proof containers with re-sealable lids. Trash containers would be removed at the end of each work day to reduce the attractiveness of the area to ravens and other predators of the covered species.
- CM-1.9: Equipment access, off road travel, use of staging areas, and disposal or temporary storage of excess fill are prohibited activities in drainages outside of the identified construction zone.
- CM-1.10: Project vehicles would be restricted to existing roads. Off-road or cross-country travel would be prohibited except in emergency situations; whereas the BLM or the County of San Bernardino would be notified immediately. No additional dirt or paved roads would be created.

- CM-1.11: Vehicle speeds would not exceed 20 miles per hour (mph) during construction activities. The speed limit would be maintained along the Project Route and on unpaved access roads while driving in desert tortoise habitat. Limiting all onsite vehicle speeds to 20 mph would also control fugitive dust emissions.
- CM-1.12: Within temporary disturbance areas, spoils from the trench would be piled and vegetation would be covered with silt fencing (or other plastic covering) prior to trenching activities. Backfilling activities would consist of carefully pushing soils off the plastic covering to avoid uprooting vegetation to the greatest extent possible. In areas where the trench line is located within temporary disturbance areas, vegetation would be transplanted with salvaged plants and re-seeded according to the approved Project Restoration Plan (Appendix **).

Air Quality/Fugitive Dust Control

- CM-2.1: The construction superintendent would cease all earth moving or excavation activities during periods of high winds (i.e., winds greater than 20 mph averaged over 1 hour).
- CM-2.2: The construction superintendent would sufficiently water or secure all material transported offsite to control the release of dust.
- CM-2.3: The construction superintendent would control Ozone precursor emissions from mobile equipment by keeping all engines in good condition and in proper tune according to manufacturer's specifications.
- CM-2.4: The construction superintendent would monitor onsite mobile equipment, which should not be left idling for periods longer than 60 seconds. Implementation of previously described general commitment would control fugitive dust emissions by limiting all onsite vehicle speeds to 20 mph.

Biological Resources

- CM-3.1: Provisions would be made to inform the construction contractor, prior to beginning of construction, of the biological constraints associated with this Project.

A field contact representative (FCR) would be retained to oversee all aspects of construction monitoring that pertain to biological resources protection, and to ensure compliance with all CMs and mitigation measures. The FCR would be responsible for the contractor education program and would monitor all maintenance/replacement activities in areas supporting listed and/or proposed species and critical habitats. The FCR would be responsible for scheduling and/or implementing pre-construction surveys, and would have the authority to stop maintenance/replacement activities that threaten significant biological resources for which no avoidance, minimization, or compensation procedures have been established in this document. The FCR would serve as the liaison between AT&T and the contractor and would act in AT&T's interest in resolving conflicts between resource protection and Project implementation. At least 30 days prior to ground- or vegetation-disturbing activities, AT&T would submit the name, qualifications, business address, and contact information for the proposed FCR to the BLM. To ensure compliance with the all Project conditions, the FCR would have the authority to immediately stop any activity that is not in compliance.

CM-3.2: A contractor education program would be implemented to ensure that contractors and all construction personnel are fully informed of the biological resources and constraints associated with this Project. Only workers who have successfully completed the education program would be allowed to work on the Project Route.

The FCR would arrange to provide all construction personnel with an orientation and information pamphlet that includes: distribution of the desert tortoise, behavior and ecology of the tortoise, sensitivities to human activities, legal protection, penalties of violation of state and federal laws, reporting requirements, and project protective mitigation measures.

The education program would focus on:

- the purpose for resource protection;
- the identification of sensitive resources involved in the Project;
- construction practices to be employed to protect sensitive resources;
- protocol to resolve conflicts that may arise during the construction process;
- ramifications of noncompliance;
- measures designed to minimize the effects of construction activities;
- the means by which employees can help facilitate this process; and
- reporting procedures.

This program would be conducted by the FCR or a qualified designee, and would be required of all construction personnel.

CM-3.3: A qualified biological monitor will conduct a preconstruction survey for sensitive plant species with a potential to occur on the Project within minimal use and disturbance areas along Segments 1 and 2. The survey will be conducted ahead of construction within the Project ROW in suitable habitat. Depending on the timing of construction, plant species may not be detectable directly prior to construction; therefore, impacts to vegetation will be avoided to the greatest extent feasible.

CM-3.4: Within proposed disturbance areas where spoils from trenching need to be placed within vegetation, vegetation would be covered with plastic sheeting. Equipment buckets would then carefully backfill the soil into the trench. Plastic sheeting would remain in place for only one day. If plastic sheeting may be in place for more than one day, then a light-colored plastic will need to be utilized to prevent vegetation from overheating. If sensitive plant species are observed within the Project ROW during the surveys, plants will be flagged and avoided to the greatest extent possible.

To be completed after coordination with CDFW on desert tortoise is complete.

Cultural Resources

CM-4.1: Cultural resource monitors would be present for maintenance/replacement activities.

To be completed after Draft Cultural Resources Report is available.

Erosion and Sediment Control

- CM-5.1: AT&T has prepared a Stormwater Pollution and Prevention Plan (SWPPP) to address controlling construction-related erosion and sedimentation and would be operating under the General Stormwater permit from the SWRCB.
- CM-5.2: BMPs would be employed to prevent loss of habitat due to erosion caused by Project-related impacts (i.e., grading or clearing). All detected erosion would be remedied as quickly as feasibly possible after discovery.
- CM-5.3: The construction superintendent would be responsible for constructing and installing all BMPs outlined in the SWPPP to limit sediment movement. Flow dissipation and sediment control structures would also be constructed in appropriate locations. Small sediment areas, designed for catching runoff and storing sediment from exposed and erodible surfaces, would be built prior to construction start-up where they are deemed necessary. These structures would be maintained and cleaned out as often as necessary for as long as erodible surfaces were exposed. Small, certified weed-free hay bale dams would be placed below slopes as temporary erosion control measures.

Excavation and Trenching

- CM-6.1: All excavations would take place within the Project Route. BMPs would be incorporated to prevent the soil from becoming airborne or being washed away as sediment. Stockpile areas, if warranted, shall be reviewed and approved by the FCR.
- CM-6.2: All trenches and holes would be inspected for desert tortoises and other animals at least three times daily (start of shift, mid-day, and end of shift). Each hole or trench would be inspected for desert tortoises prior to its being closed. Trenches would not be left open overnight. They would either be backfilled or covered with steel plates or plywood sheets. All trenches would be inspected for desert tortoise occupancy before work begins the following day. Any desert tortoises found in the Project Route would be relocated by the Project Biologist according to the protocol previously discussed.

Fueling Equipment

- CM-7.1: Fueling of equipment would not occur adjacent to or in drainages. "No-fueling zones" would be designated on construction maps and would be a minimum of 50 feet (15 meters) from drainages. No wetlands exist along the Project Route.

Invasive and Noxious Weeds

- CM-8.1: The FCR would survey the Project corridor, including access roads, for population of invasive and noxious weeds prior to the start of construction. All populations of invasive and noxious weeds within 50 feet or less of the Project Route would be flagged prior to construction only in the areas of narrow roads or access zones.
- CM-8.2: The Construction Contractor would implement control measures for invasive weeds as defined in the BLM management guidelines and the Project Restoration Plan (Appendix G), including specific measures to control introduction and spread of noxious weeds in the

Project corridor; worker training, specifications, and inspection procedures for construction materials and equipment used in the Project corridor; post-construction monitoring for noxious weeds; and eradication and control methods.

- CM-8.3: To prevent contamination into new habitat, the construction superintendent would establish wash stations in staging areas to remove any seeds that may have attached to construction vehicles.
- CM-8.4: Construction personnel would power wash construction vehicles and equipment, including body, bumpers, and undercarriages, at the staging area wash stations prior to moving the equipment onsite and beginning earthmoving activities.
- CM-8.5: When vehicles and equipment are washed, a log must be kept stating the location, date and time, types of equipment, and methods used. The crewmember who washed the vehicle shall sign the log. Written logs would be included in the FCR monitoring reports.
- CM-8.6: All gravel and fill materials required during Project construction and maintenance would be certified weed free.
- CM-8.7: The AT&T would be responsible for implementing an invasive species monitoring program to identify and remove any invasive species. Post-project monitoring would be implemented for invasive vegetation and would occur within the spring flowering period of the following year.

Noise

- CM-9.1: The construction superintendent will ensure compliance with San Bernardino County Municipal Code Section 83.01.080(g)(3) timing requirements. The Project proponent utilizes standard construction equipment that complies with established noise standards.

Occupational Safety and Health Administration

- CM-10.1: Construction activities along the Project Route will be subject to the Occupational Safety Health Administration (OSHA) rules and regulations, which set forth mandatory health and safety standards for construction sites. These standards include mandatory incident reporting, weekly tailgate meetings, and monthly safety meetings with the contractor to discuss potential health and safety issues. In addition, the construction superintendent would be responsible for verifying that all construction personnel working on the Project Route are legal citizens of the United States or possess an approved employment visa.

Public Health and Safety/Hazardous Materials

- CM-11.1: AT&T will follow the Spill Prevention and Control Plan (Appendix J), which outlines the storage and use of hazardous materials, the prevention of spill incidents, and emergency response procedures. The plan also describes the various chemicals to be stored and used on the Project Route (i.e., fertilizers, cable lubricants, etc.). This plan also establishes procedures and methods to transport, store, and clean up a spill involving hazardous materials in compliance with state and county regulations and ordinances. In addition, the

plan outlines construction measures and operational procedures to follow in the event of an emergency.

- CM-11.2: All leaks, spills, or releases of fuel or other hazardous materials would be reported immediately to the BLM or the U.S. Army if on federal lands, or the County of San Bernardino if on non-federal lands. All such material that leaks, spills, or is otherwise released would be removed immediately. The FCR would ensure that all appropriate measures are implemented during the removal of the hazardous materials.
- CM-11.3: Hazardous materials would not be stored or handled in the construction zone and any unused or leftover hazardous products would be properly contained and disposed of offsite.
- CM-11.4: Traffic detour signs and/or personnel would be posted to direct traffic during the staged construction period.

Staging Areas

- CM-12.1: Staging areas are prohibited in sensitive biological areas. Staging areas would be located in existing contractor yards; existing staging areas established by other utility companies; previously cleared, graded, or paved areas; or level areas where grading and vegetation clearing are not required. Staging areas would be reviewed and approved by the FCR. If necessary, changes in location would be incorporated into the construction contract. Equipment fueling would not occur adjacent to or in drainages.
- CM-12.2: Off-road travel and temporary storage areas outside the staging areas or construction zones are prohibited. Within the authorized surface use areas, disturbances such as temporary staging areas or parking areas for equipment are to be confined to the smallest practical location, considering; topography, placement of facilities, location of burrows, and public health and safety. Such areas would be marked to minimize surface disturbance associated with vehicles straying. Special habitat features, such as burrows, identified by the authorized biologist would be avoided.

Surface Hydrology and Groundwater

- CM-13.1: A Spill Prevention and Control Plan (Appendix J) would be implemented. AT&T will follow the Spill Prevention and Control Plan, which outlines the storage and use of hazardous materials, the prevention of spill incidents, and emergency response procedures. The plan also describes the various chemicals to be stored and used on the Project Route (i.e., fertilizers, cable lubricants, etc.). This plan also establishes procedures and methods to transport, store, and clean up a spill involving hazardous materials in compliance with state and county regulations and ordinances. In addition, the plan outlines construction measures and operational procedures to follow in the event of an emergency.

APPENDIX D – AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA



State Highway 127 Fiber Optic Project
San Bernardino-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	14.80	Acre	14.80	644,688.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2014
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 14.8 acres of Other Non-Asphalt Surfaces based on 12.25 miles of conduit with a 10 foot wide disturbance area.

Construction Phase - Conduit Installation 22 workdays, Fiber Optic Cable Installation 8 workdays, Restoration Activities 5 days

Off-road Equipment - 1 D-9 Cat (Rubber Tired Dozer), 2 backhoes, 1 Excavator, 1 trencher, 1 dozer/plow (crawler tractor), 1 loader (rubber tired loader)

Off-road Equipment - 1 air compressor, 1 Mechanical pusher/puller (Other material handling equip), 1 backhoe

Off-road Equipment - 1 grader and 2 backhoes

Grading -

Trips and VMT - Conduit Installation 26 worker trips, 12 vendor trips (3/4 ton + water truck), haul trips (10-wheeler + Semi-trailer). Cable Installation 18 worker trips, 4 vendor trips (one-ton truck + 3/4 ton)

On-road Fugitive Dust - % Pavement adjusted to 90%

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	8.00
tblConstructionPhase	NumDays	30.00	5.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	PhaseEndDate	10/31/2014	11/1/2014
tblGrading	AcresOfGrading	12.50	2.50
tblGrading	AcresOfGrading	66.00	22.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Other Material Handling Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Pavers	Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType	Scrapers	Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	100.00	90.00
tblOnRoadDust	HaulingPercentPave	100.00	90.00
tblOnRoadDust	HaulingPercentPave	100.00	90.00
tblOnRoadDust	VendorPercentPave	100.00	90.00
tblOnRoadDust	VendorPercentPave	100.00	90.00
tblOnRoadDust	VendorPercentPave	100.00	90.00
tblOnRoadDust	WorkerPercentPave	100.00	90.00
tblOnRoadDust	WorkerPercentPave	100.00	90.00
tblOnRoadDust	WorkerPercentPave	100.00	90.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00

tblTripsAndVMT	VendorTripNumber	106.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripNumber	20.00	8.00
tblTripsAndVMT	WorkerTripNumber	271.00	18.00
tblTripsAndVMT	WorkerTripNumber	28.00	26.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.1406	1.5453	0.9571	1.2600e-003	1.2226	0.0783	1.3009	0.1597	0.0723	0.2320	0.0000	119.8502	119.8502	0.0330	0.0000	120.5436
Total	0.1406	1.5453	0.9571	1.2600e-003	1.2226	0.0783	1.3009	0.1597	0.0723	0.2320	0.0000	119.8502	119.8502	0.0330	0.0000	120.5436

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.1406	1.5453	0.9571	1.2600e-003	0.1001	0.0783	0.1784	0.0477	0.0723	0.1200	0.0000	119.8501	119.8501	0.0330	0.0000	120.5435
Total	0.1406	1.5453	0.9571	1.2600e-003	0.1001	0.0783	0.1784	0.0477	0.0723	0.1200	0.0000	119.8501	119.8501	0.0330	0.0000	120.5435

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	91.81	0.00	86.29	70.15	0.00	48.28	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Conduit Installation	Grading	9/15/2014	10/14/2014	5	22	
2	Fiber Optic Cable Installation	Building Construction	10/15/2014	10/24/2014	5	8	
3	Restoration Activities	Grading	10/25/2014	11/1/2014	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Conduit Installation	Excavators	1	8.00	162	0.38
Conduit Installation	Graders	1	8.00	174	0.41
Conduit Installation	Trenchers	2	8.00	80	0.50
Conduit Installation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Conduit Installation	Crawler Tractors	1	8.00	208	0.43
Fiber Optic Cable Installation	Cranes	1	7.00	226	0.29
Restoration Activities	Graders	1	8.00	174	0.41
Restoration Activities	Excavators	2	8.00	162	0.38
Fiber Optic Cable Installation	Forklifts	3	8.00	89	0.20

Restoration Activities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fiber Optic Cable Installation	Air Compressors	1	8.00	78	0.48
Fiber Optic Cable Installation	Other Material Handling Equipment	3	8.00	167	0.40
Fiber Optic Cable Installation	Generator Sets	1	8.00	84	0.74
Fiber Optic Cable Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Restoration Activities	Rubber Tired Dozers	1	8.00	255	0.40
Conduit Installation	Rubber Tired Dozers	1	8.00	255	0.40
Conduit Installation	Scrapers	2	8.00	361	0.48
Restoration Activities	Scrapers	2	8.00	361	0.48
Conduit Installation	Rubber Tired Loaders	1	8.00	199	0.36
Fiber Optic Cable Installation	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Restoration Activities	8	8.00	0.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Fiber Optic Cable Installation	11	18.00	4.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Conduit Installation	11	26.00	2.00	4.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Conduit Installation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0779	0.0000	0.0779	0.0377	0.0000	0.0377	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0969	1.1289	0.6443	8.5000e-004		0.0555	0.0555		0.0510	0.0510	0.0000	81.7810	81.7810	0.0242	0.0000	82.2885
Total	0.0969	1.1289	0.6443	8.5000e-004	0.0779	0.0555	0.1334	0.0377	0.0510	0.0887	0.0000	81.7810	81.7810	0.0242	0.0000	82.2885

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	6.0000e-004	8.0000e-004	0.0000	5.4000e-003	2.0000e-005	5.4200e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	0.1323	0.1323	0.0000	0.0000	0.1324
Vendor	5.3000e-004	5.8300e-003	6.5100e-003	1.0000e-005	0.0594	1.8000e-004	0.0596	6.0000e-003	1.6000e-004	6.1600e-003	0.0000	1.1621	1.1621	1.0000e-005	0.0000	1.1622
Worker	2.1000e-003	4.5300e-003	0.0406	5.0000e-005	0.7720	3.0000e-005	0.7720	0.0777	3.0000e-005	0.0777	0.0000	3.9892	3.9892	3.0000e-004	0.0000	3.9954
Total	2.6900e-003	0.0110	0.0479	6.0000e-005	0.8368	2.3000e-004	0.8370	0.0842	2.1000e-004	0.0844	0.0000	5.2836	5.2836	3.1000e-004	0.0000	5.2900

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0779	0.0000	0.0779	0.0377	0.0000	0.0377	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0969	1.1289	0.6443	8.5000e-004		0.0555	0.0555		0.0510	0.0510	0.0000	81.7809	81.7809	0.0242	0.0000	82.2885
Total	0.0969	1.1289	0.6443	8.5000e-004	0.0779	0.0555	0.1334	0.0377	0.0510	0.0887	0.0000	81.7809	81.7809	0.0242	0.0000	82.2885

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	6.0000e-004	8.0000e-004	0.0000	3.0000e-005	2.0000e-005	5.0000e-005	1.0000e-005	2.0000e-005	2.0000e-005	0.0000	0.1323	0.1323	0.0000	0.0000	0.1324
Vendor	5.3000e-004	5.8300e-003	6.5100e-003	1.0000e-005	3.6000e-004	1.8000e-004	5.4000e-004	1.0000e-004	1.6000e-004	2.7000e-004	0.0000	1.1621	1.1621	1.0000e-005	0.0000	1.1622
Worker	2.1000e-003	4.5300e-003	0.0406	5.0000e-005	3.9000e-003	3.0000e-005	3.9300e-003	1.0400e-003	3.0000e-005	1.0700e-003	0.0000	3.9892	3.9892	3.0000e-004	0.0000	3.9954
Total	2.6900e-003	0.0110	0.0479	6.0000e-005	4.2900e-003	2.3000e-004	4.5200e-003	1.1500e-003	2.1000e-004	1.3600e-003	0.0000	5.2836	5.2836	3.1000e-004	0.0000	5.2900

3.3 Fiber Optic Cable Installation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0228	0.1979	0.1182	1.7000e-004		0.0128	0.0128		0.0121	0.0121	0.0000	15.7911	15.7911	4.0500e-003	0.0000	15.8762
Total	0.0228	0.1979	0.1182	1.7000e-004		0.0128	0.0128		0.0121	0.0121	0.0000	15.7911	15.7911	4.0500e-003	0.0000	15.8762

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8000e-004	4.2400e-003	4.7300e-003	1.0000e-005	0.0432	1.3000e-004	0.0434	4.3600e-003	1.2000e-004	4.4800e-003	0.0000	0.8451	0.8451	1.0000e-005	0.0000	0.8453
Worker	5.3000e-004	1.1400e-003	0.0102	1.0000e-005	0.1943	1.0000e-005	0.1944	0.0196	1.0000e-005	0.0196	0.0000	1.0043	1.0043	7.0000e-005	0.0000	1.0058
Total	9.1000e-004	5.3800e-003	0.0150	2.0000e-005	0.2376	1.4000e-004	0.2377	0.0239	1.3000e-004	0.0240	0.0000	1.8494	1.8494	8.0000e-005	0.0000	1.8511

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0228	0.1979	0.1182	1.7000e-004		0.0128	0.0128		0.0121	0.0121	0.0000	15.7911	15.7911	4.0500e-003	0.0000	15.8762
Total	0.0228	0.1979	0.1182	1.7000e-004		0.0128	0.0128		0.0121	0.0121	0.0000	15.7911	15.7911	4.0500e-003	0.0000	15.8762

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8000e-004	4.2400e-003	4.7300e-003	1.0000e-005	2.6000e-004	1.3000e-004	3.9000e-004	8.0000e-005	1.2000e-004	1.9000e-004	0.0000	0.8451	0.8451	1.0000e-005	0.0000	0.8453
Worker	5.3000e-004	1.1400e-003	0.0102	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0043	1.0043	7.0000e-005	0.0000	1.0058
Total	9.1000e-004	5.3800e-003	0.0150	2.0000e-005	1.2400e-003	1.4000e-004	1.3800e-003	3.4000e-004	1.3000e-004	4.6000e-004	0.0000	1.8494	1.8494	8.0000e-005	0.0000	1.8511

3.4 Restoration Activities - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0164	0.0000	0.0164	8.4200e-003	0.0000	8.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.2018	0.1290	1.5000e-004		9.7000e-003	9.7000e-003		8.9200e-003	8.9200e-003	0.0000	14.8661	14.8661	4.3900e-003	0.0000	14.9584
Total	0.0171	0.2018	0.1290	1.5000e-004	0.0164	9.7000e-003	0.0261	8.4200e-003	8.9200e-003	0.0173	0.0000	14.8661	14.8661	4.3900e-003	0.0000	14.9584

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	3.2000e-004	2.8400e-003	0.0000	0.0540	0.0000	0.0540	5.4300e-003	0.0000	5.4300e-003	0.0000	0.2790	0.2790	2.0000e-005	0.0000	0.2794
Total	1.5000e-004	3.2000e-004	2.8400e-003	0.0000	0.0540	0.0000	0.0540	5.4300e-003	0.0000	5.4300e-003	0.0000	0.2790	0.2790	2.0000e-005	0.0000	0.2794

Mitigated Construction On-Site

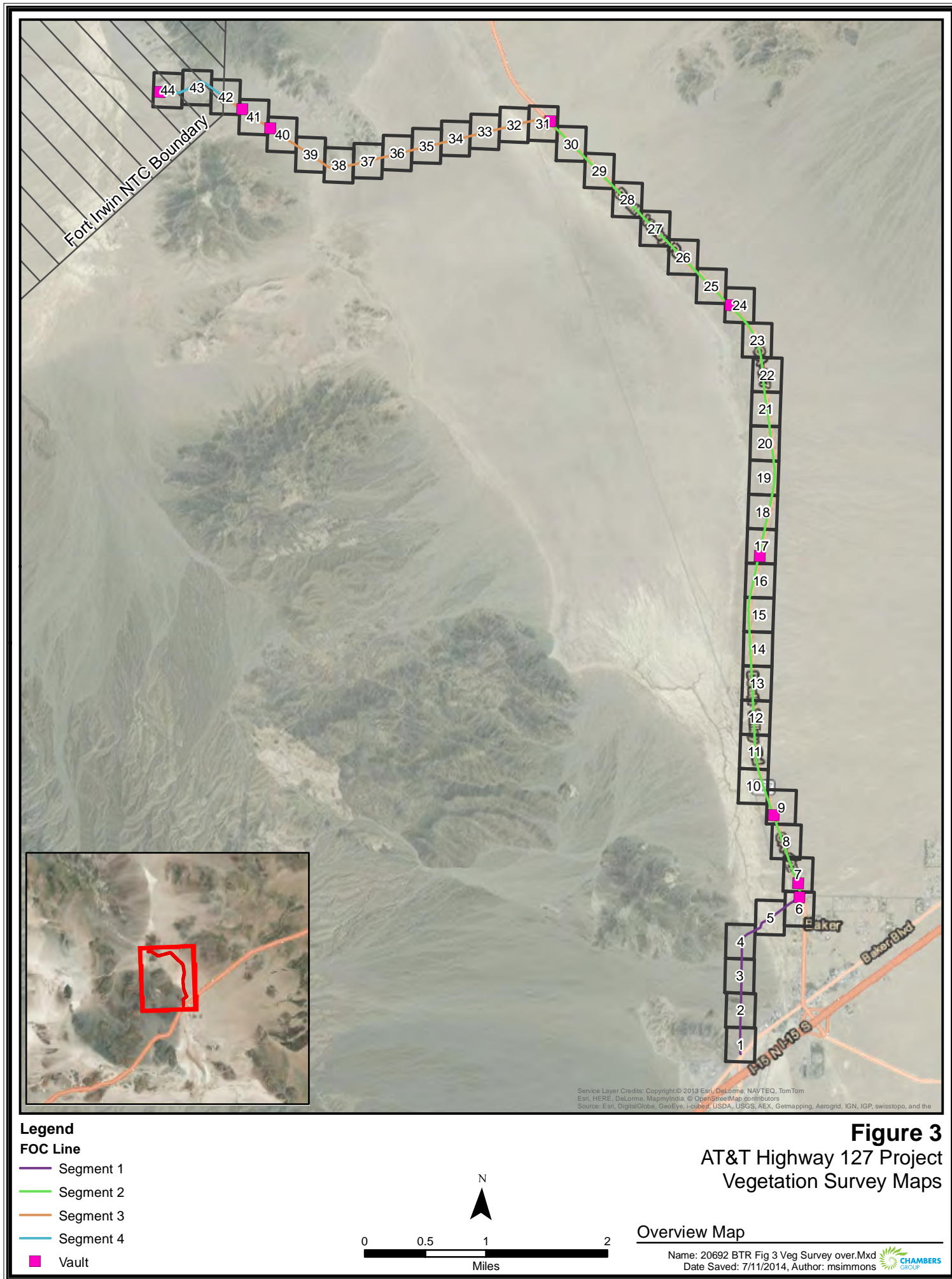
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0164	0.0000	0.0164	8.4200e-003	0.0000	8.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.2018	0.1290	1.5000e-004		9.7000e-003	9.7000e-003		8.9200e-003	8.9200e-003	0.0000	14.8661	14.8661	4.3900e-003	0.0000	14.9584
Total	0.0171	0.2018	0.1290	1.5000e-004	0.0164	9.7000e-003	0.0261	8.4200e-003	8.9200e-003	0.0173	0.0000	14.8661	14.8661	4.3900e-003	0.0000	14.9584

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	3.2000e-004	2.8400e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2790	0.2790	2.0000e-005	0.0000	0.2794
Total	1.5000e-004	3.2000e-004	2.8400e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2790	0.2790	2.0000e-005	0.0000	0.2794

APPENDIX E – VEGETATION SURVEY MAPS







Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

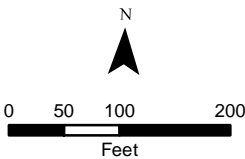


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Legend

FOC Line

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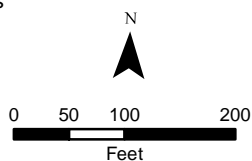


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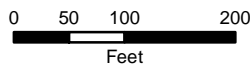


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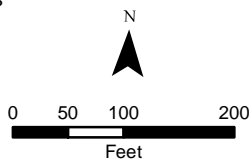
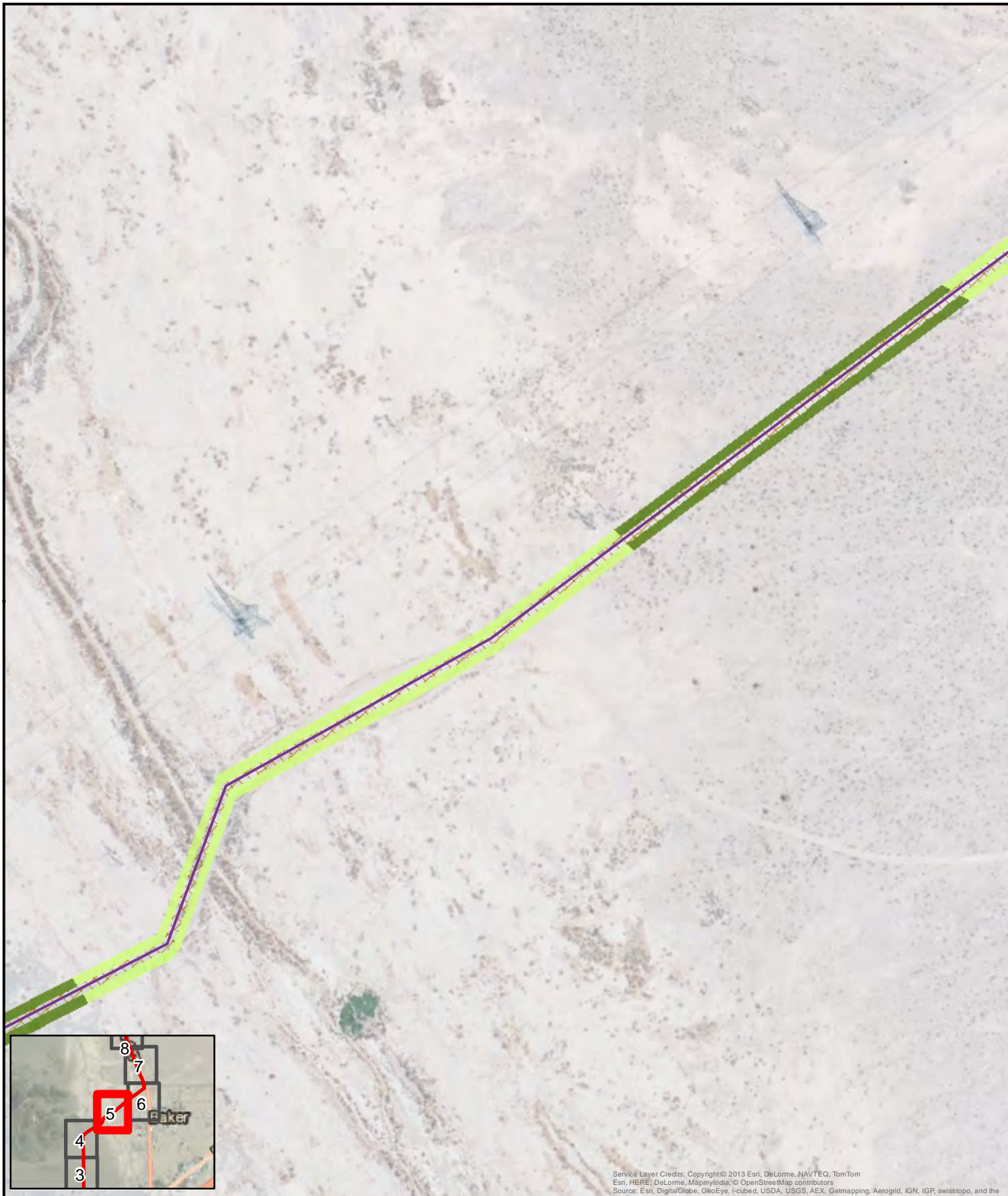


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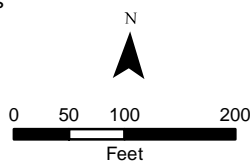


Figure 3
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Legend

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Vegetation Community

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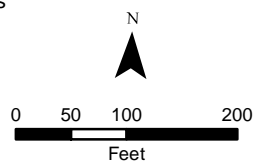


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

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AT&T Highway 127 Project
Vegetation Survey Maps



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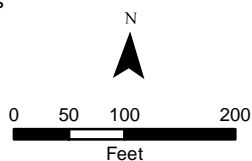
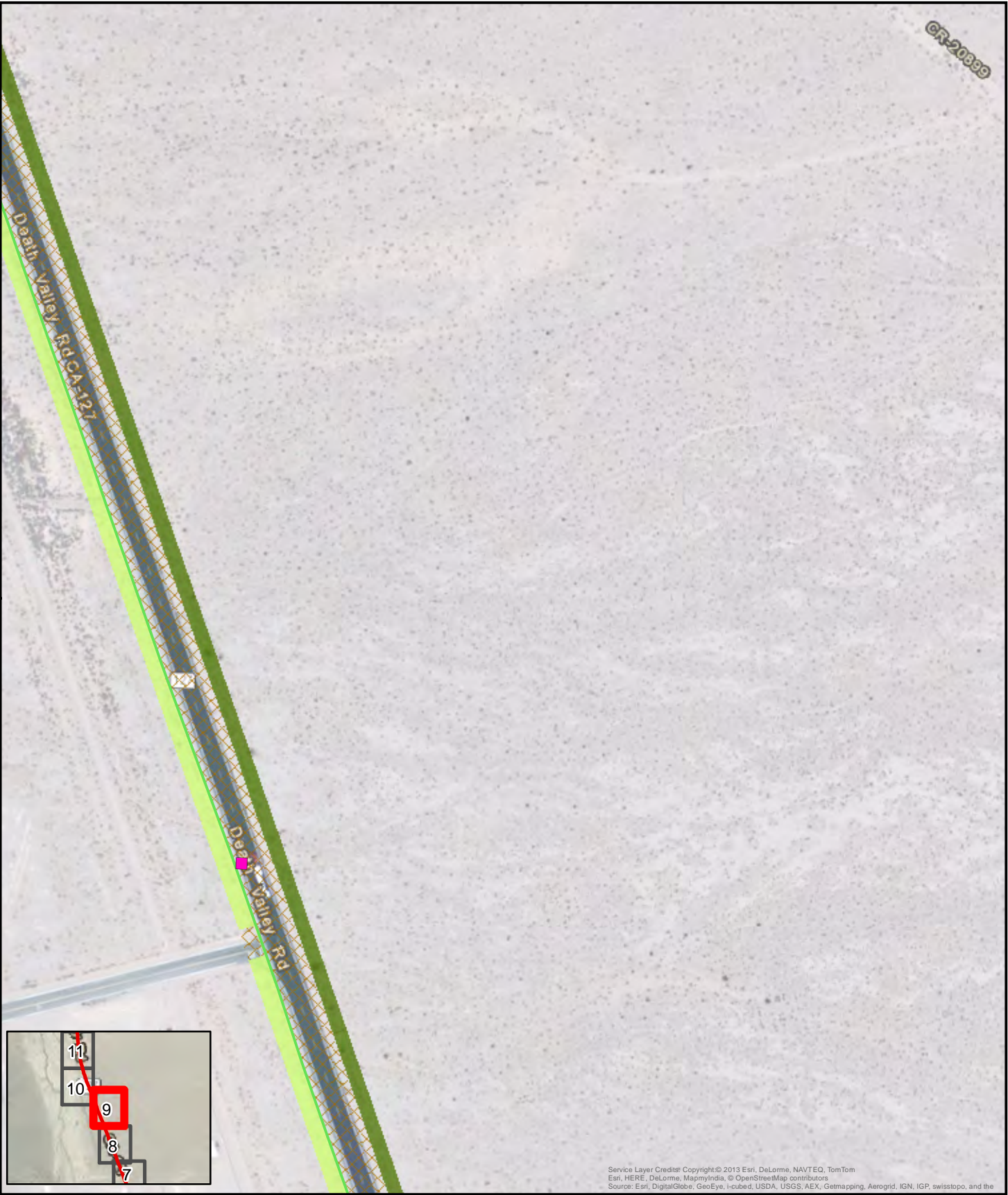


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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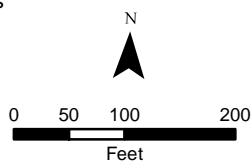
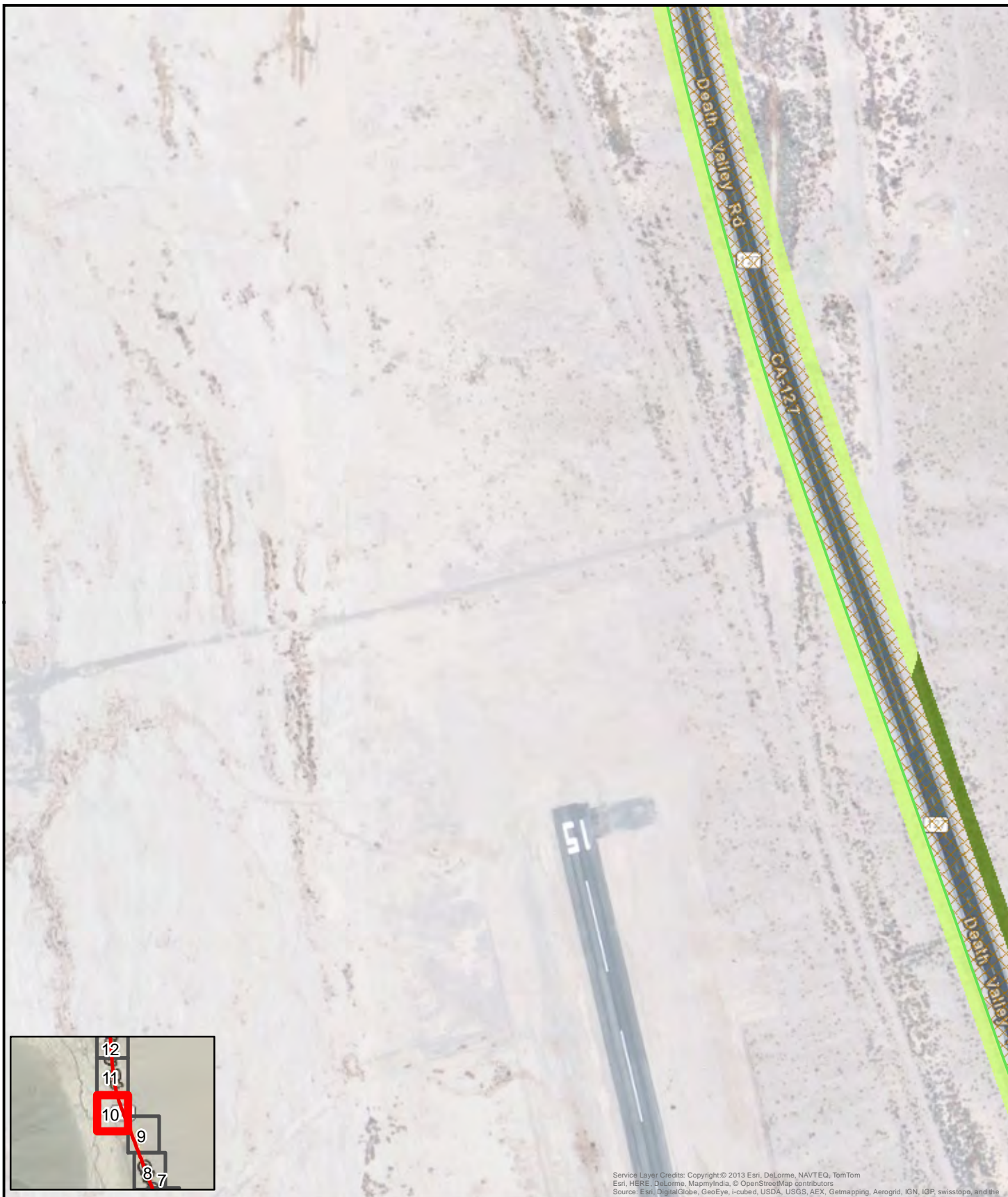


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

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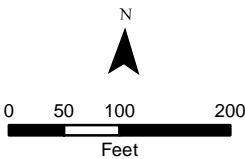


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

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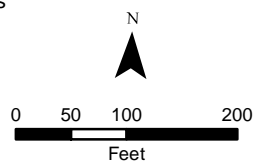
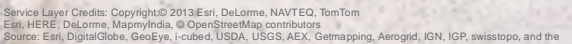
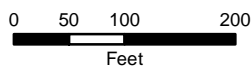


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Creosote Bush-White Bursage Scrub Series
 Disturbed/Developed
 Dry Lakebed
 Mixed Saltbush Series



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Legend

FOC Line

- Segment 1
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- Segment 4
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Vegetation Community

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0 50 100 200
Feet

Figure 3 AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

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Vegetation Community

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Figure 3

AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

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Legend

FOC Line

- Segment 1
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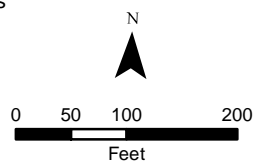


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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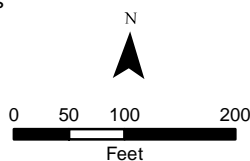


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

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Vegetation Community

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Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



- Legend**
- | FOC Line | Vegetation Community |
|-----------|--|
| Segment 1 | Creosote Bush-White Bursage Scrub Series |
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| Vault | |

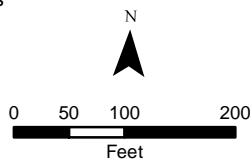
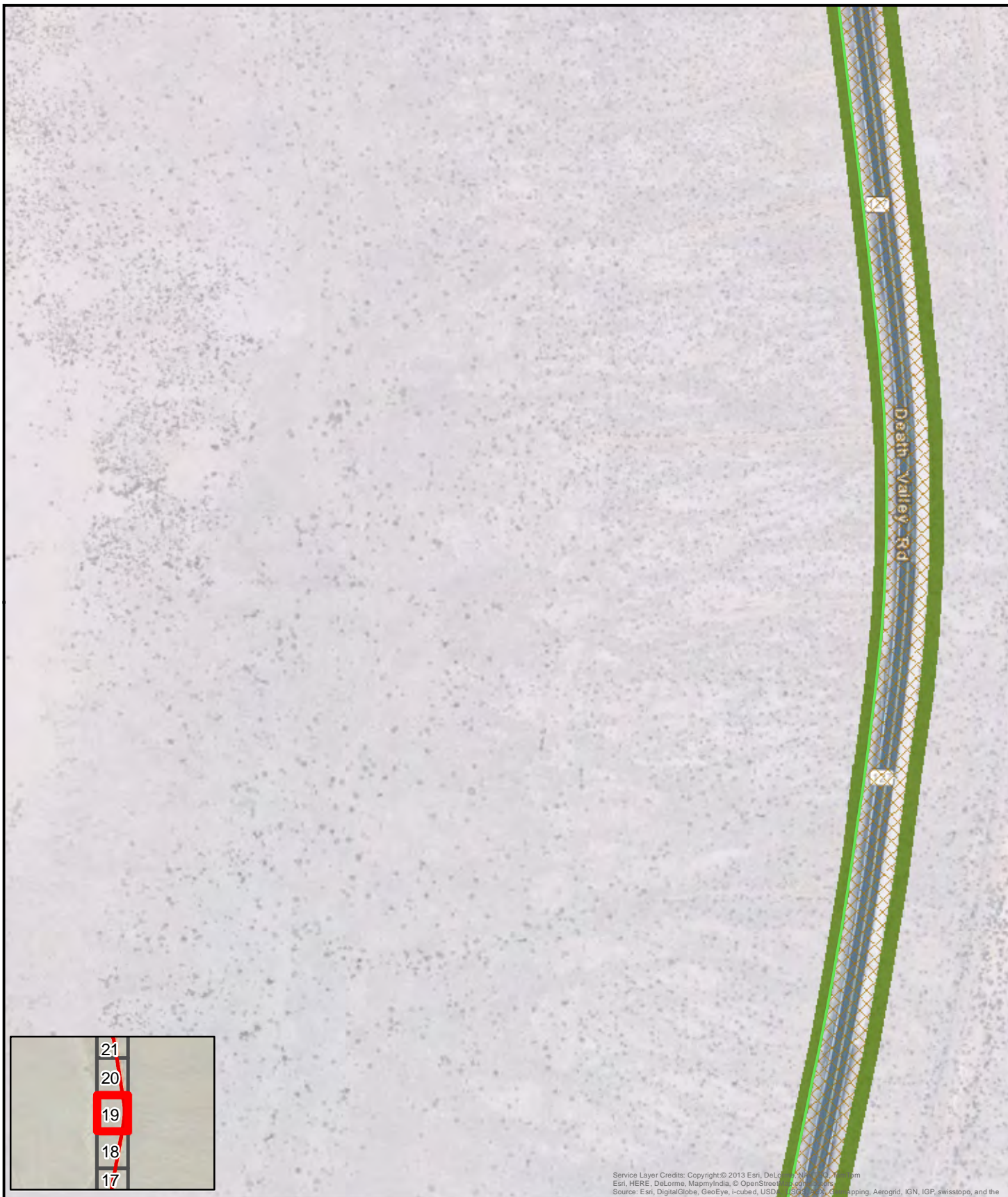


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

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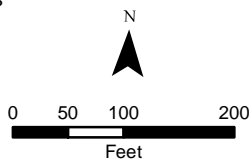
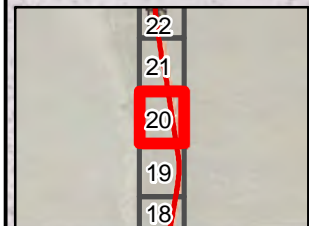


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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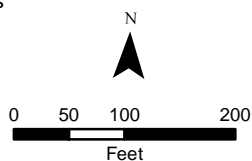


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AT&T Highway 127 Project
Vegetation Survey Maps



- Legend**
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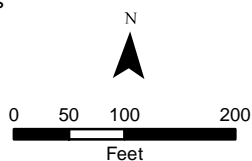


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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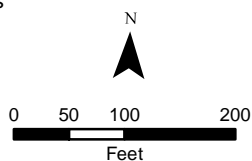


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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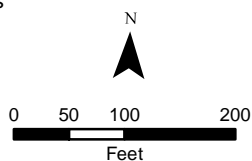


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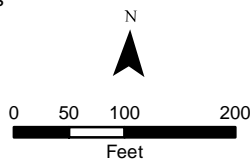


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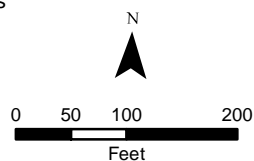


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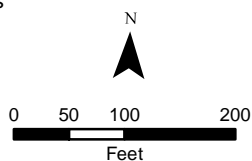


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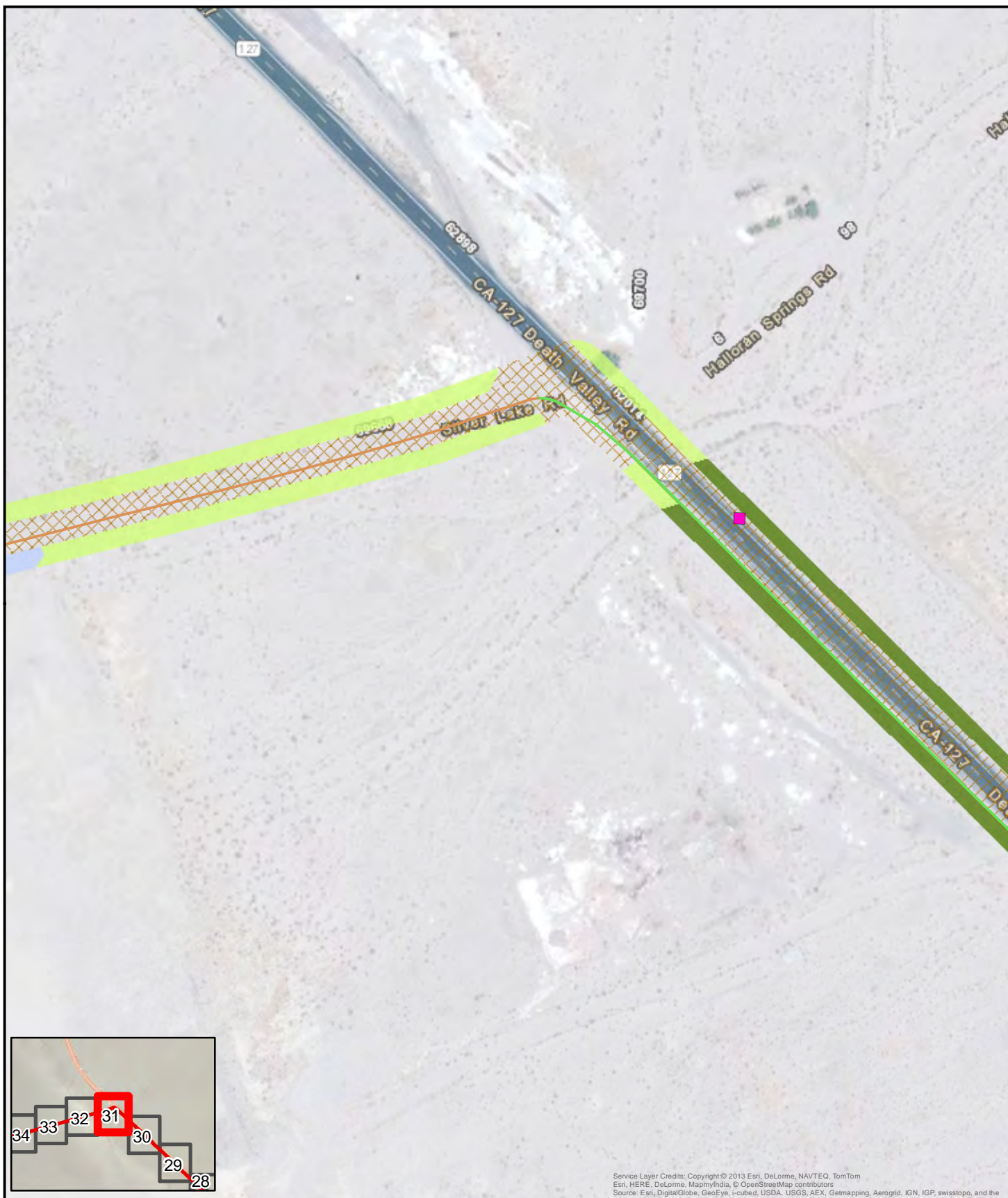
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0 50 100 200
 Feet

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Vegetation Survey Maps



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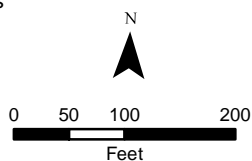


Figure 3 AT&T Highway 127 Project Vegetation Survey Maps

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Segment 3

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0 50 100 200
 Feet

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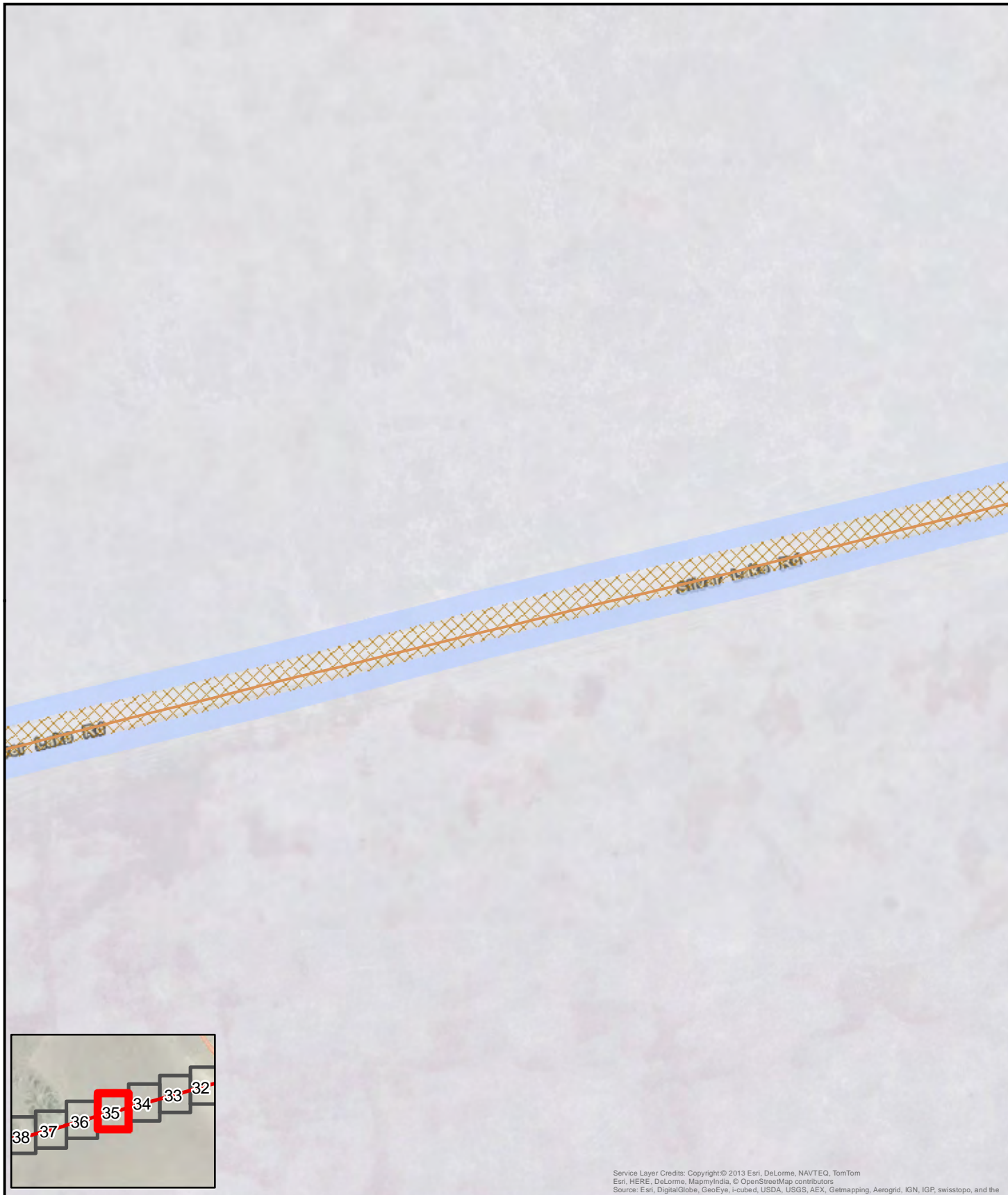
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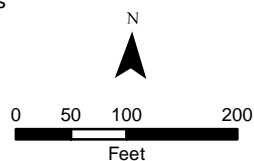


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- Dry Lakebed
- Mixed Saltbush Series

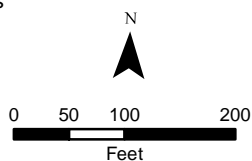


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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 Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the

Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

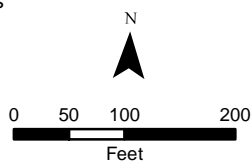


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

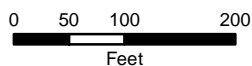


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

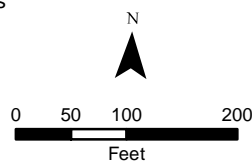
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Figure 3

AT&T Highway 127 Project Vegetation Survey Maps

Page 39 of 44

Segment 3



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Date Saved: 7/11/2014, Author: msimmons





Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

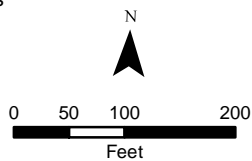


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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 Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the

Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

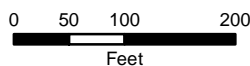
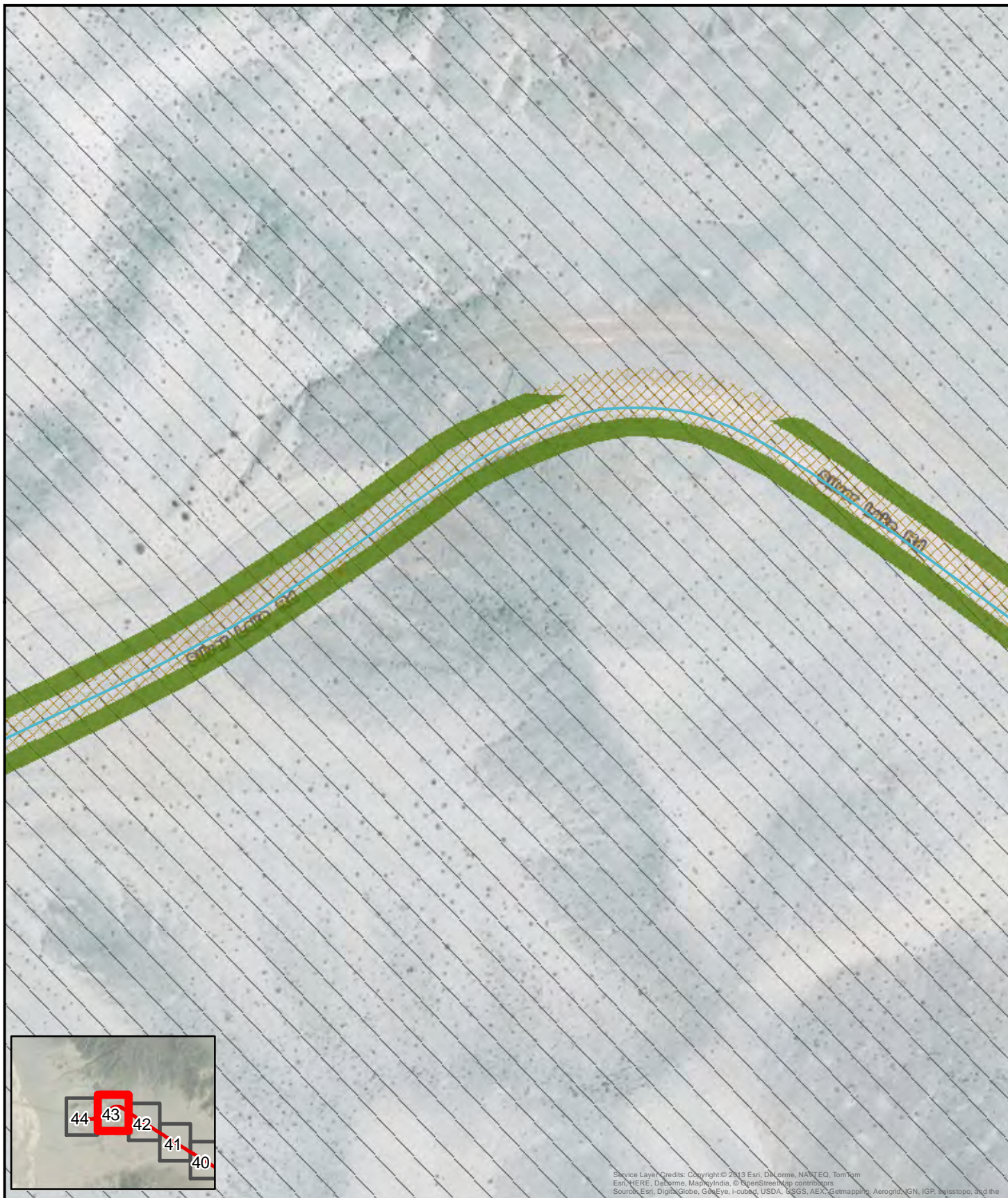


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

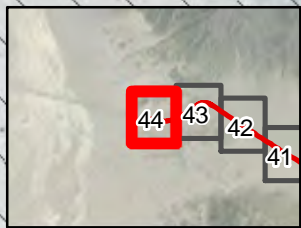
Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps

Silver Lake Rd

Silver Lake Rd



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

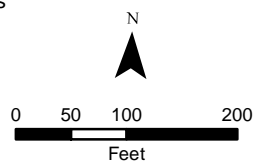


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps

APPENDIX F – BIOLOGICAL TECHNICAL REPORT



DRAFT

**BIOLOGICAL TECHNICAL REPORT
FOR THE AT&T STATE ROUTE 127 FIBER-
OPTIC CABLE INSTALLATION PROJECT
SAN BERNARDINO COUNTY, CALIFORNIA**

Prepared for:

AT&T CALIFORNIA (RIGHT OF WAY DEPARTMENT)
7337 Trade St., Room 5685
San Diego, CA 92121

Prepared by:

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1200 California Street, Suite 270
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August 2014

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SECTION 1.0 – INTRODUCTION

1.1 PROJECT DESCRIPTION

The AT&T Corporation (AT&T) is proposing a fiber-optic cable (FOC) installation project (Project or Proposed Action) from the unincorporated community of Baker to the United States (U.S.) Army National Training Center (NTC) at Fort Irwin in California. The Project would install approximately 12 miles of FOC within previously disturbed areas (Route). The majority of the Route roughly parallels State Route (SR-) 127 and proceeds from the intersection of Mill Street and Baker Boulevard southwest of the community of Baker, northeast to Cell Tower Site 9 at the NTC. The new FOC is needed to support AT&T's Shoshone Central Office cellular network (Shoshone District) and the NTC's Combat Training Center – Instrumentation System Range Communications System (CTC-IS RCS).

Currently, the AT&T cellular network along SR-127 and the Shoshone district is interconnected by wireless microwave transmitters. The system has limited bandwidth and increasing maintenance requirements as it ages. Replacement and upgrade of the current system with additional microwave transmitters represents higher costs of equipment and maintenance and involvement of a greater amount of natural resources. The Proposed Action would add the needed bandwidth and reliability to the system at reduced operational cost and reduced involvement of natural resources.

The NTC's CTC-IS RCS provides tools to analyze training performance information and provide detailed and tailored performance feedback to the units undergoing training at Fort Irwin. Currently, two lines of FOC connect Fort Irwin with NTC's cellular and data network: one operated by Verizon Wireless and the other operated jointly by the NTC and China Lake Naval Air Weapons Station. Both lines lack needed bandwidth capability and/or connective reliability. The Proposed Action adds connective redundancy to the NTC's cellular and data network and needed bandwidth to meet present and future communication needs at the NTC and provides a first stage link to the Shoshone district.

1.2 ROUTE DESCRIPTION

The Route follows a path between the intersection of Mill Street and Baker Boulevard and the NTC's Cell Tower Site 9 as shown in Figure 1. Beginning at the intersection of Mill Street and Baker Boulevard, the Route travels parallel to Mill Street for approximately 1.14 miles. Turning right, the Route parallels Silver Lane for approximately 0.44 mile until it reaches SR-127, north of Baker. The Project Route then crosses to the west side of SR-127 and runs north along SR-127 for approximately 7.20 miles. The Route then turns west onto Silver Lake Road and continues for approximately 3.47 miles to Cell Tower Site 9.

For the purpose of organizing the data, the Project Route has been divided into the following four segments:

- Segment 1, approximately 1.58 miles, occurs from the intersection of Mill Street and Baker Boulevard northeast around the southwest edge of Baker to SR-127.
- Segment 2 occurs from SR-127, north for approximately 7.20 miles to Silver Lake Road.
- Segment 3, approximately 2.87 miles, occurs from Silver Lake Road west to the Fort Irwin border.

- Segment 4 occurs from the border of Fort Irwin to Cell Tower Site 9 for approximately 0.60 mile.

The Route crosses through land owned and/or managed by the United States Bureau of Land Management (BLM), Fort Irwin, State Lands Commission, and private individuals and entities. Table 1 lists the miles of land owners/managers crossed per Project Route segment and Table lists acreages of land owners/managers..

Table 1: Land Ownership or Management Mileage per Segment

Land Owner	Length Per Segment (miles)				Total
	1	2	3	4	
BLM	0.46	5.88	2.70	0.01	9.05
Fort Irwin	0.00	0.00	0.00	0.59	0.59
State Lands Commission	0.00	1.16	0.00	0.00	1.16
Private	112	0.16	0.17	0.00	1.45
Total	1.58	7.20	2.87	0.60	12.25

Source: BLM California State Office, Mapping Sciences Sacramento, CA (Accessed March 24, 2014).

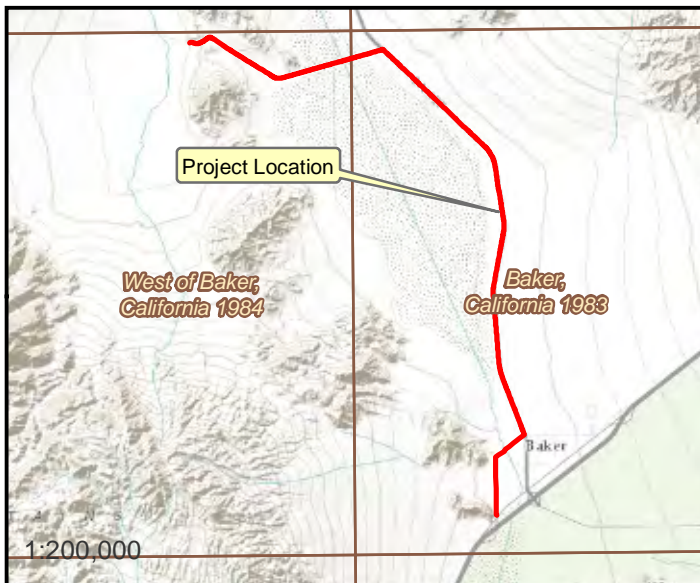
Table 2: Land Ownership or Management Acreage per Segment

Land Owner	Acreage Per Segment				Total
	1	2	3	4	
BLM	1.08	14.23	6.54	0.07	21.92
Fort Irwin	0.00	0.00	0.00	1.44	1.44
State Lands Commission	0.00	2.82	0.00	0.00	2.82
Private	2.70	0.39	0.41	0.00	3.50
Total	3.79	17.44	6.95	1.45	29.69

Source: BLM California State Office, Mapping Sciences Sacramento, CA (Accessed March 24, 2014).

Note: Includes Disturbed/Developed areas within and outside of existing roads.

Note: Numbers are rounded.



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4

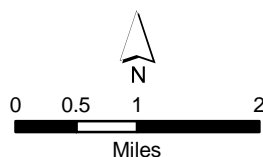


Figure 1
AT&T Highway 127 Project
Project Location and Vicinity Map

1.3 PROPOSED PROJECT DISTURBANCE

Under the Proposed Action, BLM would approve a right-of-way (ROW) grant to AT&T to facilitate FOC installation activities from the unincorporated community of Baker, California, to Cell Site 9 at the NTC. The Proposed Action would perform installation activities along the approximately 12-mile Route, the majority of which roughly parallels SR-127, from the intersection of Mill Street and Baker Boulevard southwest of the community of Baker northeast to the NTC site located approximately 0.5 mile inside the installation's eastern boundary.

Project activities within the Route consist of installing 3 new direct buried 1.5-inch-diameter high-density polyethylene (HDPE) ducts and 25 3-foot by 5-foot by 3-foot direct buried cable splice vaults spaced approximately 3,000 feet apart. In addition, marker poles and a buried marker ribbon will also be installed. A potential staging area for installation would be located near the Project Route in pre-disturbed areas. Access roads will be used only to access the Project ROW during construction activities. Parking will not take place within identified native habitat. The access roads will not be blocked during construction and will not prevent the public or maintenance vehicles from passing through. The pre-disturbed Project ROW will be 20 feet wide, allowing 10 feet for "minimal use" and 10 feet for proposed "disturbance area".

Areas used for minimal use during installation activities would not be graded or cleared of vegetation. Vegetation would be crushed by vehicles or equipment but the root system, topsoil, and seed bank would be left intact.

Proposed disturbance areas are areas that would be graded and cleared of vegetation for installation of the new cable. Habitat areas that are graded would be replanted with salvaged plants and re-seeded according to the Agency approved Project Restoration Plan (Appendix A). Areas where the Project ROW is on portions of existing county or utility corridor dirt roads would not result in impacts since these areas are already disturbed. Existing dirt roads will be backfilled and re-contoured/graded to match the preconstruction conditions of that existing road.

Segment 1

Within Segment 1 (approximately 1.58 miles), an existing maintained dirt road with an average width of 12.5 feet is within the Project ROW. Of the 20 foot wide ROW, the remaining 7.5 feet occurs within vegetation. Of the 7.5 feet, an average width of 2.5 feet would be utilized as proposed disturbed areas and an average width of 5 feet would be utilized as minimal use areas, if necessary. Installation of the duct would occur within the existing maintained dirt road. The trench and spoils will be contained within the dirt road to the greatest extent feasible.

Habitat within the 2.5 foot proposed disturbance areas will be avoided to the greatest extent feasible. Due to the 12.5 foot road containing multiple utilities underground, there is a potential that the trench line would be located closer to one side of the road rather than the middle; therefore, the spoils have the potential to encroach within the vegetation. Where avoidance of vegetation is not an option, native vegetation will be covered with a plastic covering prior to trenching activities. The silt fencing/covering is not expected to be used for more than one day at a time because only the amount of trenching and FOC placement that can be accomplished in one day will be planned for that day. If a covering is expected to be used for more than one day at a time during the summer, a lighter color covering will be used to prevent vegetation from over heating. Covering the vegetation will minimize the uprooting of vegetation

due to backfilling activities as a result of dragging the equipment bucket directly over plants. Backfilling activities would consist of carefully pushing soils off the plastic covering while minimizing the potential of uprooting vegetation and while keeping the topsoil and seed bank intact.

Minimal use areas within Segment 1 would be used only if absolutely necessary in emergency situations when construction vehicles and/or equipment need to pass the maintenance/replacement activities. It is currently unknown if disturbance to these areas will be necessary, and it is very likely that these areas would not be used at all. These areas will be avoided to the greatest extent possible but were identified as areas that may potentially be needed for passing only. If passing does need to occur in any of these areas, the area needed for passing will first be identified and surveyed by a qualified biologist for the presence of sensitive species and biotic crust. The survey area will be documented. Photographs of the area will be taken to document the conditions and a GPS point will be recorded for location prior to use. Once surveyed, the biologist will monitor passing activities by vehicles and/or equipment. The number of passes will be kept to a minimum (likely only one pass by one vehicle or piece of equipment) to minimize potential impacts to habitat.

Segment 2

Within Segment 2 (approximately 7.20 miles), the duct would be installed at the foot of the SR 127 western shoulder and inside the existing dirt berm. Of the 20 foot wide ROW, 10 feet would occur within the existing maintained shoulder of the SR 127. The remaining 10feet would occur within vegetation just outside the berm, and would be utilized as minimal use areas. Equipment used to create the trench for the duct would straddle the trench and therefore, one side of the equipments tires or tracks will be within the vegetation just outside of the berm.

The minimal use areas within Segment 2 would be crushed not graded; therefore, the root system, topsoil, and seed bank would be left intact. Only the necessary equipment for installation of the FOC would be utilized in the minimal use areas. Prior to utilizing these areas, a biologist will be notified. The biologist will survey for the presence of sensitive species and biotic crust and document the results. Photographs of the area will be taken to document the conditions and a GPS point will be recorded for location prior to use. Once surveyed, the biologist will monitor construction activities. The number of passes will be kept to a minimum within minimal use areas. Once construction is complete, minimal use areas will be re-contoured with the use of hand tools, in order to smooth out ruts created by construction equipment. Compacted soils will be slightly loosened while overly loosened soils will be slightly compacted and watered down to create a crust. Rocks and boulders as well as plant debris from crushed vegetation located within the minimal use areas will be replaced or left in place, to help prevent the area from being utilized by the public.

Segments 3 and 4

Within Segments 3 and 4, all activities will take place within roadways or disturbed roadway shoulders; therefore, no new ground disturbance will occur and no new ground-disturbing activities will take place within habitat areas.

Total Project Disturbance

Approximately 9.59 acres of disturbance may occur within minimal use areas. An area of approximately 0.43 acres of disturbance is anticipated within proposed disturbance areas. The acres of minimal use and proposed disturbance to habitat for each portion of the Route are included in Table 2.

Table 2: Proposed Acres of Disturbance to Habitat

Route Segment	Minimal Use* (acres)	Proposed Disturbance (acres)	Total Disturbance (acres)
Segment 1	0.93	0.43	1.36
Segment 2	8.66	0.00	8.66
Segment 3	0.00	0.00	0.00
Segment 4	0.00	0.00	0.00
Total Disturbance	9.59	0.43	10.02

Note: Acreage totals only include impacts to habitat, not non-vegetated areas.

*Minimal use areas within Segment 1 will only be used in emergency situations so are not considered impacts to habitat.

*Minimal use areas within Segment 2 will be utilized for the entire length of the Segment and because uprooting has a potential to occur, these areas are considered impacts to habitat.

Areas where the Project is within or will utilize previously disturbed or developed county or utility corridor dirt roads, as well as disturbed or developed areas for staging, will not result in Project impacts since no new disturbance will occur. These existing dirt roads are not included in the acreages listed above. Dirt roads and staging areas will be re-contoured to match preconstruction contours.

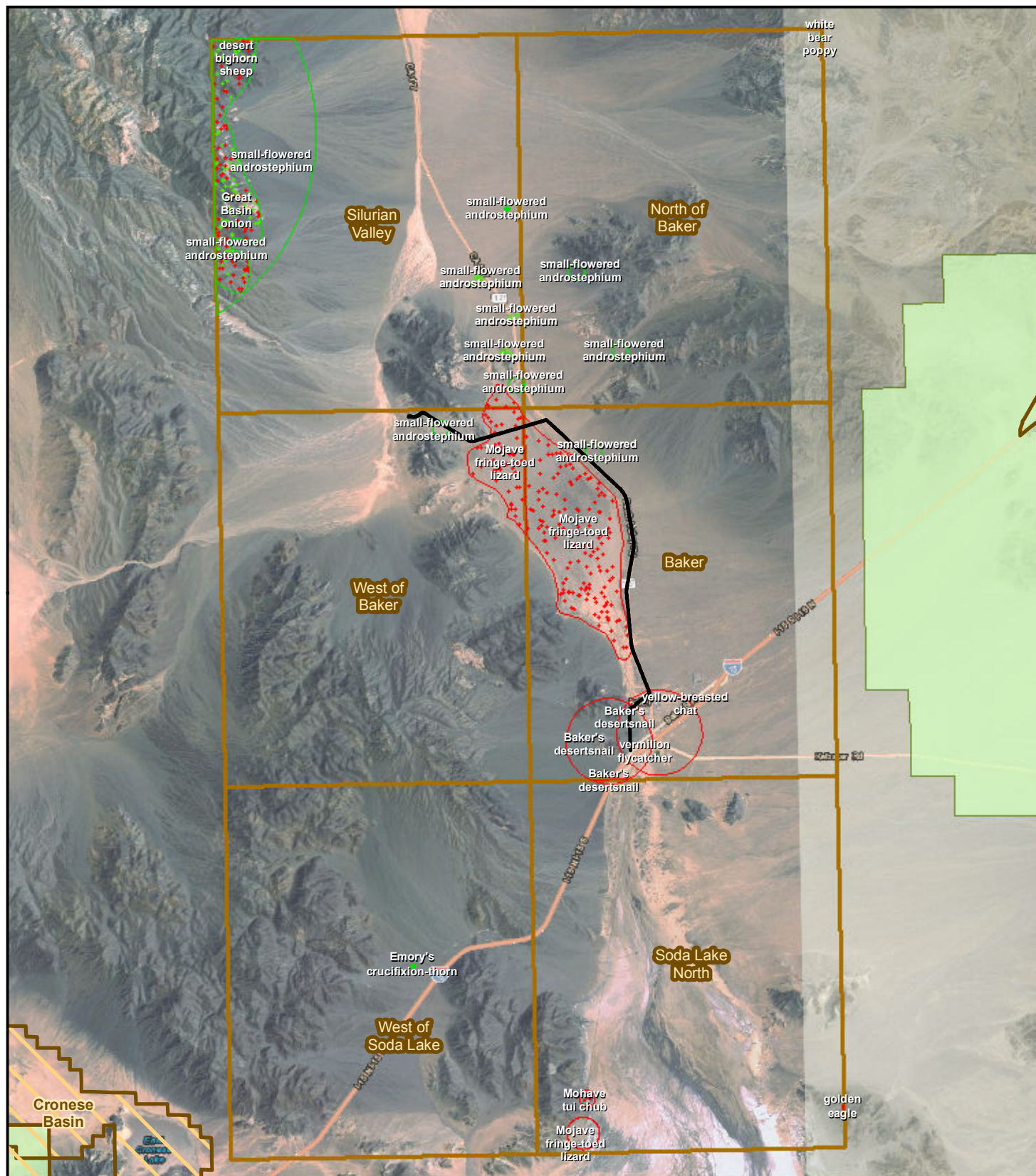
SECTION 2.0 – METHODS

2.1 LITERATURE REVIEW

Prior to performing the field surveys, existing documentation relevant to the Project Route was reviewed. The most recent records of the California Natural Diversity Database (CNDDDB) managed by the California Department of Fish and Wildlife (CDFW 2014) and the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPSEI 2014) were reviewed for the quadrangles containing and surrounding the Project Route (i.e., *Baker, Halloran Springs, North of Baker, Seventeenmile Point, Silurian Valley, Soda Lake North, West of Baker, and West of Soda Lake*, California USGS 7.5-minute quadrangles). Quadrangles surrounding the Route were searched if those quadrangles contained similar habitat characteristics to those containing the Route. These databases contain records of reported occurrences of federally or state listed as endangered or threatened or proposed endangered or threatened species, former Federal Species of Concern (FSC), California Species of Special Concern (SSC), or otherwise sensitive species or habitat that may occur within or in the immediate vicinity of the Project Route. Species designated as sensitive by the BLM (2013) were also included in the review. CNDDDB and CNPSEI species occurrences that exist within 5 miles of the Project were mapped for plants and wildlife (Figure 2). All critical habitat units (USFWS 2010a), Desert Wildlife Management Areas (DWMAs) (BLM 2008), and Areas of Critical Environmental Concern (ACECs) (BLM 2010) that either overlap the Project or that exist within 5 miles of the Project were mapped for both plants and wildlife (Figure 2).

2.2 SOILS

Before conducting the biological reconnaissance survey, soil maps were reviewed online for San Bernardino County to determine the types of soil found along the Project Route. Soils were determined in accordance with categories set forth by the U.S. Department of Agriculture (USDA) Soil Conservation Service and by referencing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2014). Soil data is important in the process of analyzing what plants may occur in the survey area. Most sensitive plants will grow only in specific soil types. Soil types would then help determine where to conduct focused surveys for listed plants.



Legend

— Route Alignment
 USGS 7.5-min Quad

CNDDDB Occurrences

Plant (80m)
 Plant (specific)
 Plant (non-specific)
 Plant (circular)

Animal (80m)

Animal (specific)
 Animal (non-specific)
 Animal (circular)

Agency Designated Habitat

USFWS Desert Tortoise Critical Habitat
 BLM ACEC

CNDDDB version 3/2014. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

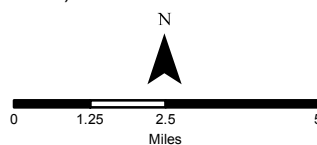


Figure 2
 AT&T Highway 127 Project
 Known Species Occurrences and
 Habitat Designations

Service Layer Credits: Copyright © 2013 Esri, DeLorme, NAVTEQ, TomTom
 Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
 Name: 20692 BTR Fig 2 Species and Habitats.Mxd
 Date Saved: 7/9/2014, Author: msimmons



2.3 FIELD SURVEYS

Field surveys for the Project included a biological reconnaissance survey, focused plant survey, burrowing owl (*Athene cunicularia*) survey, presence/absence survey for desert tortoise (*Gopherus agassizii*), and a jurisdictional delineation of waters. Each survey is described below. A list of the plant species observed during surveys is presented in Appendix B. A list of the wildlife species observed during the surveys is included as Appendix C. Representative photographs depicting site conditions as well as representative photographs from focused surveys are included as Appendix D.

2.3.1 Biological Reconnaissance-Level Survey

The biological reconnaissance-level survey was conducted along the Project Route to identify potential for occurrence of sensitive species, vegetation communities, or habitats to support sensitive wildlife species. Chambers Group, Inc. (Chambers Group) biologists conducted the survey by driving the ROW very slowly and getting out of the car to survey on foot in areas where habitat types changed, especially in patches of smaller habitat communities, in order to get a closer look at plant species observed for identification purposes, and in habitats areas most likely utilized by special status wildlife species.

Vegetation Survey

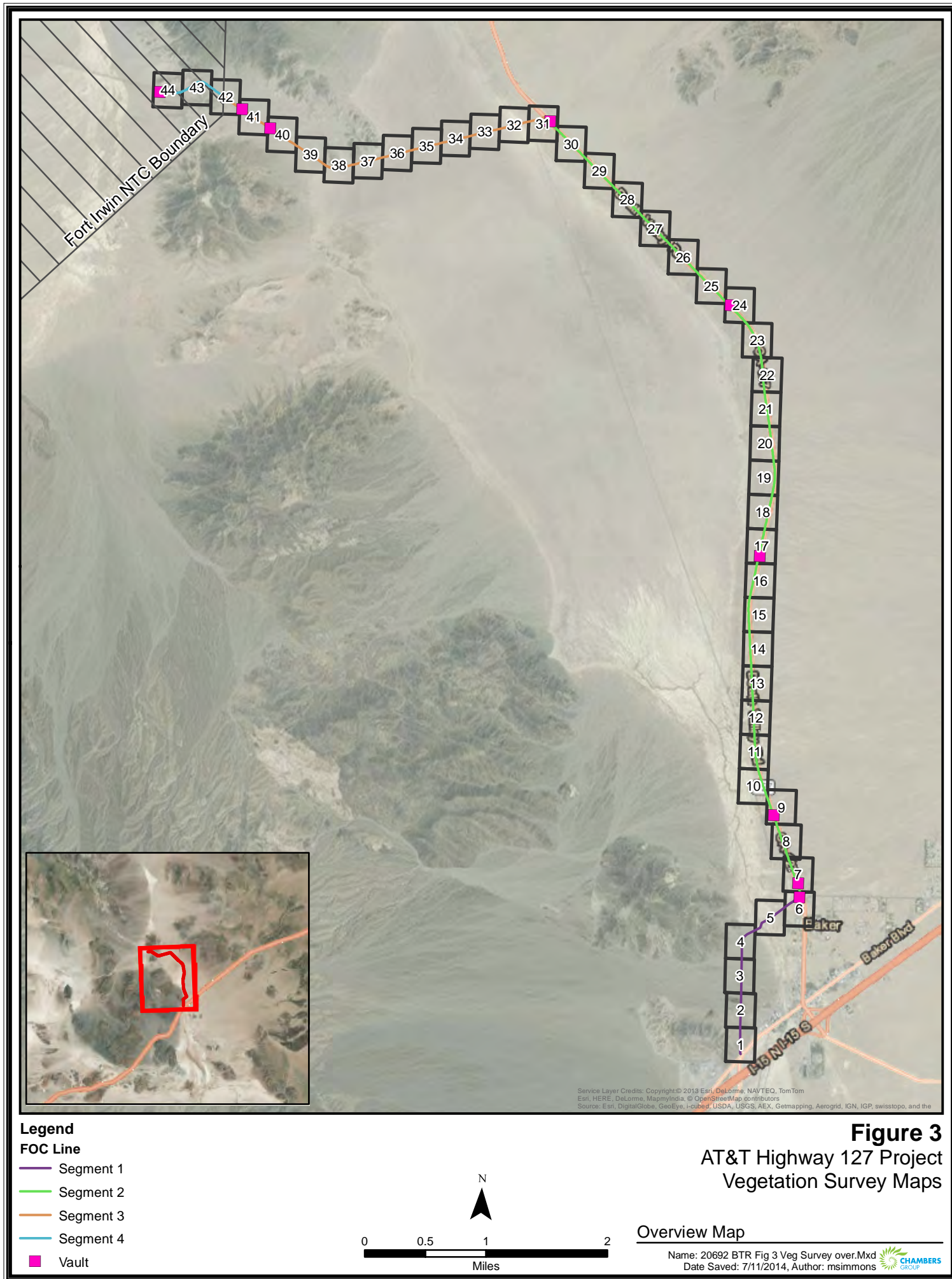
During the biological reconnaissance survey, all plant species and soil types observed on and adjacent to the Project ROW were noted and mapped. Plant communities were identified, qualitatively described, and mapped within 45 feet from the FOC line (Figure 3). Plant communities were determined in accordance with the categories set forth in Sawyer and Keeler-Wolf (1995). Additional survey time was spent on foot where habitat communities changed, especially in patches of smaller habitat communities and in order to take a closer look or collect plant species for identification purposes. All plant species detected during the survey were recorded. Plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations on Calflora (Calflora 2014). Plant nomenclature follows that of *The Jepson Manual Second Edition* (Baldwin et al. 2012).

Wildlife

During the biological reconnaissance survey, all wildlife and wildlife sign observed and detected on and along the Project ROW, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent on foot in those habitats most likely to be utilized by wildlife (undisturbed native habitat, wildlife trails, etc.) or in habitats with the potential to support state and/or federally listed or proposed listed species. Notes were recorded on the general habitat types, species observed, and the conditions of the ROW and buffer area.

Reconnaissance-level Jurisdictional Waters Assessment

Prior to beginning the field reconnaissance delineation, a 50-foot-to-the-inch scaled topographic map and scaled aerial photographs were examined to determine the locations of potential areas under the jurisdiction of the of United States Army Corps of Engineers (USACE), the Regional Water Quality Control





Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

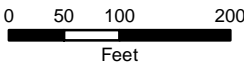


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

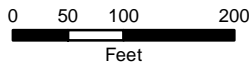


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

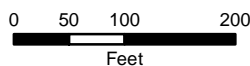


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

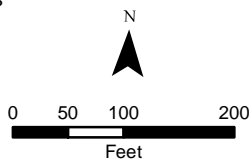
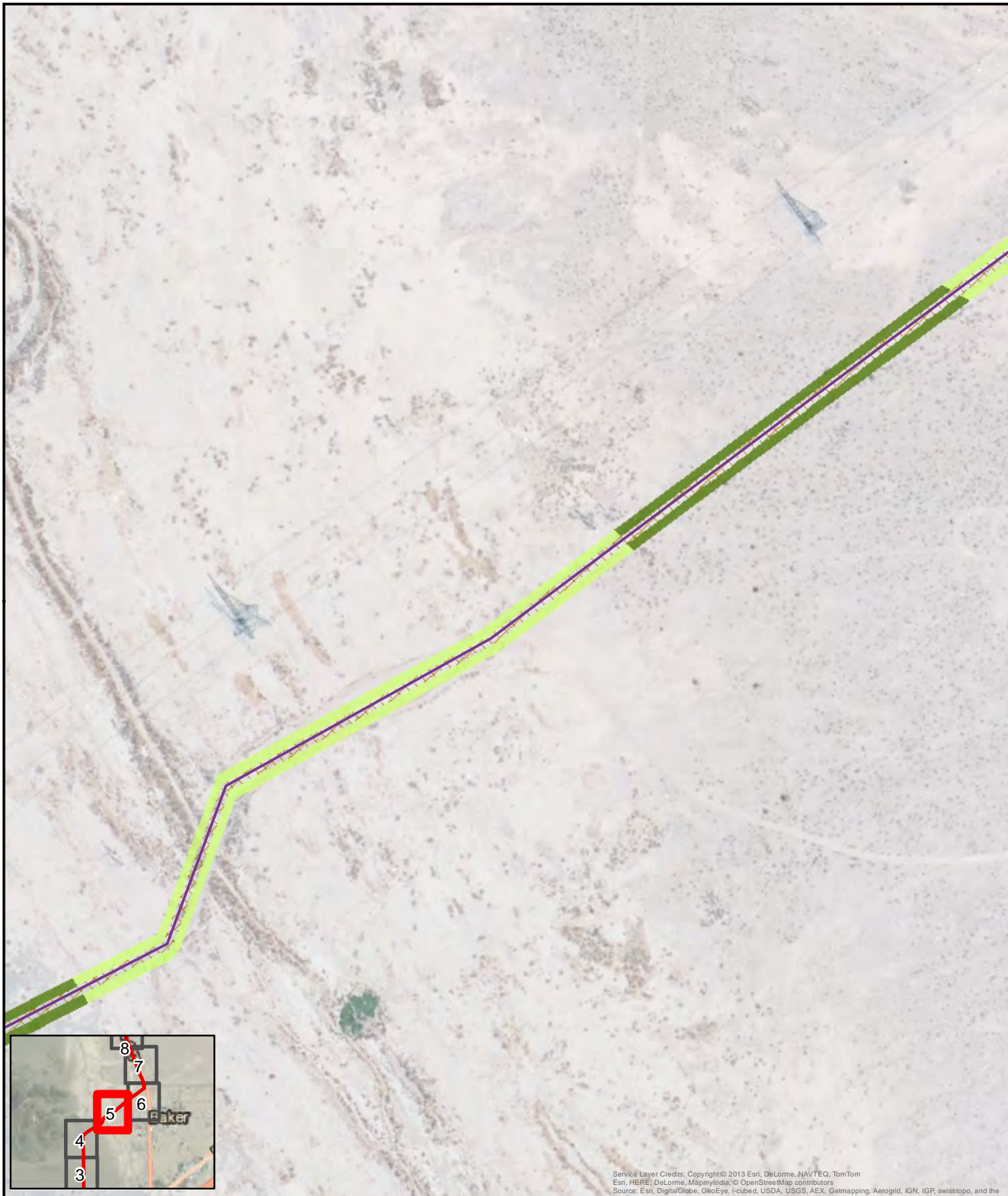


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series



0 50 100 200
Feet

Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line	Vegetation Community
Segment 1	Creosote Bush-White Bursage Scrub Series
Segment 2	Disturbed/Developed
Segment 3	Dry Lakebed
Segment 4	Mixed Saltbush Series
Vault	

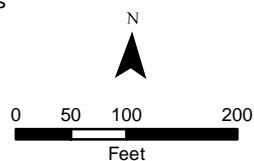


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

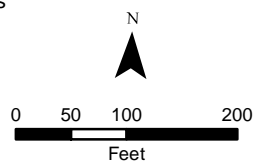


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

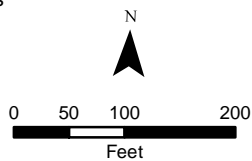
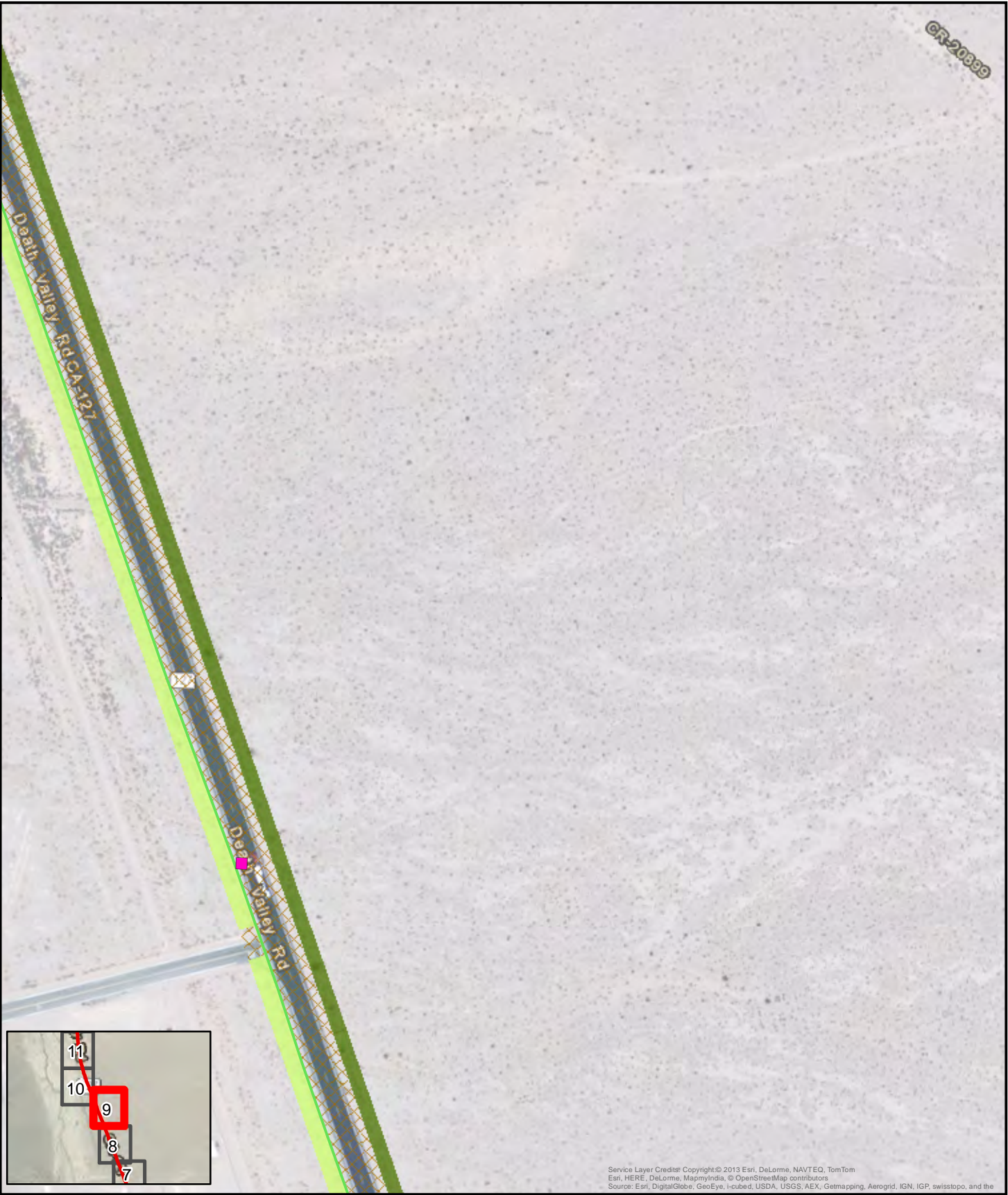


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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- Legend**
- | FOC Line | Vegetation Community |
|-----------|--|
| Segment 1 | Creosote Bush-White Bursage Scrub Series |
| Segment 2 | Disturbed/Developed |
| Segment 3 | Dry Lakebed |
| Segment 4 | Mixed Saltbush Series |
| Vault | |

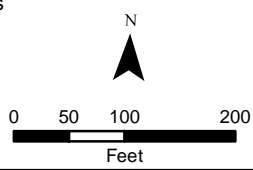
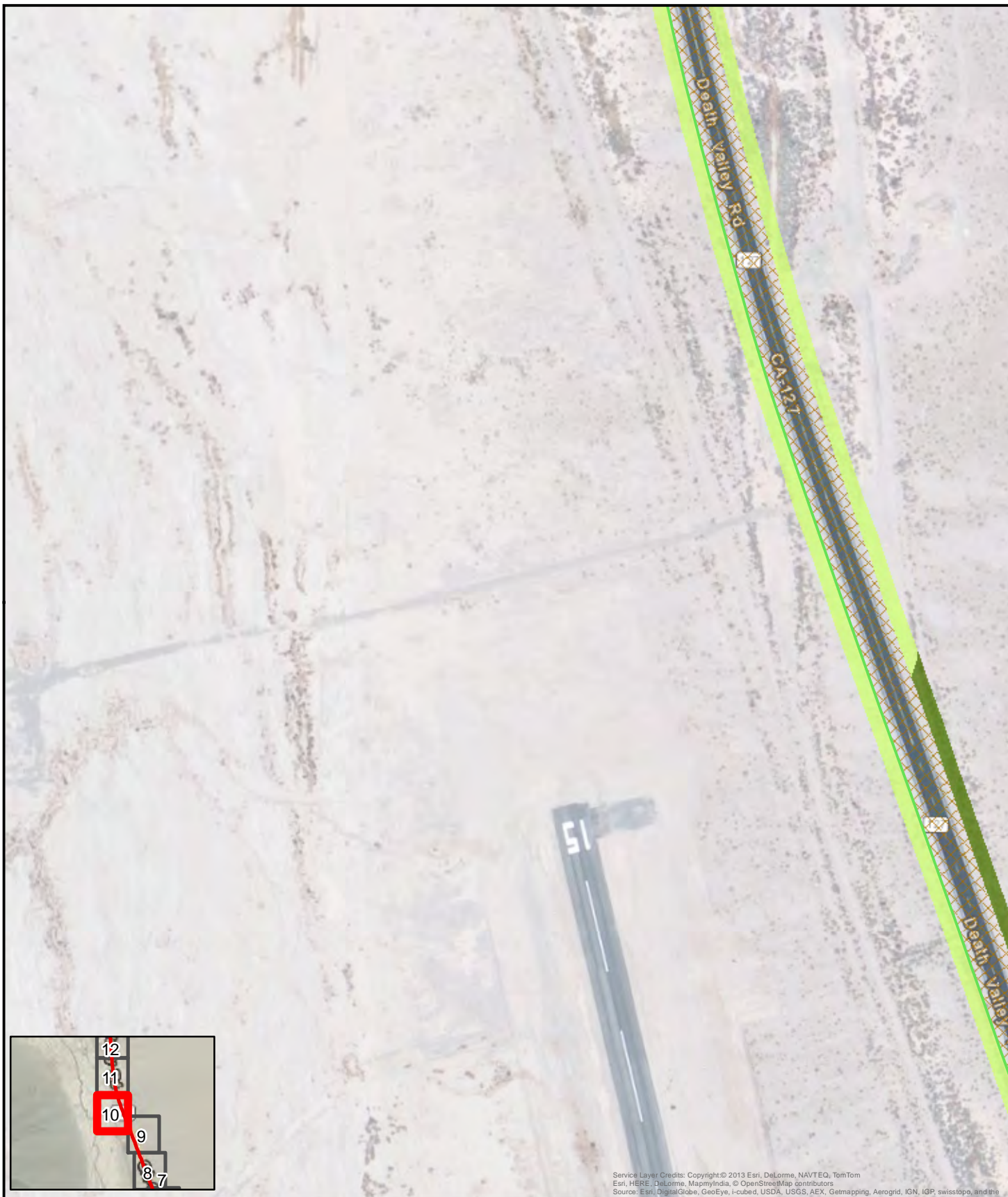


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Legend

FOC Line

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- Segment 2
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- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

Figure 3

AT&T Highway 127 Project Vegetation Survey Maps



Legend

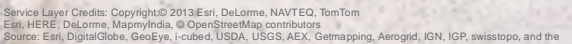
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- Segment 4
- Vault

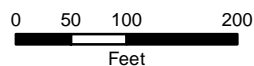
Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Creosote Bush-White Bursage Scrub Series
 Disturbed/Developed
 Dry Lakebed
 Mixed Saltbush Series



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Legend

FOC Line

- Segment 1
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- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
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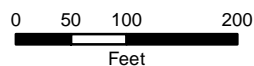


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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FOC Line

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Vegetation Community

- Creosote Bush-White Bursage Scrub Series
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- Mixed Saltbush Series

Figure 3

AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

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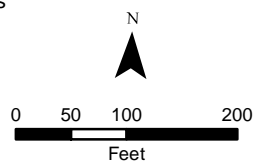


Figure 3 AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

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Vegetation Community

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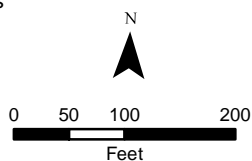


Figure 3 AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

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Legend

FOC Line

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Vegetation Community

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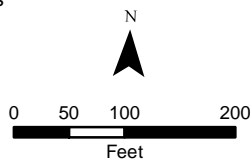


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

FOC Line

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- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
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Figure 3

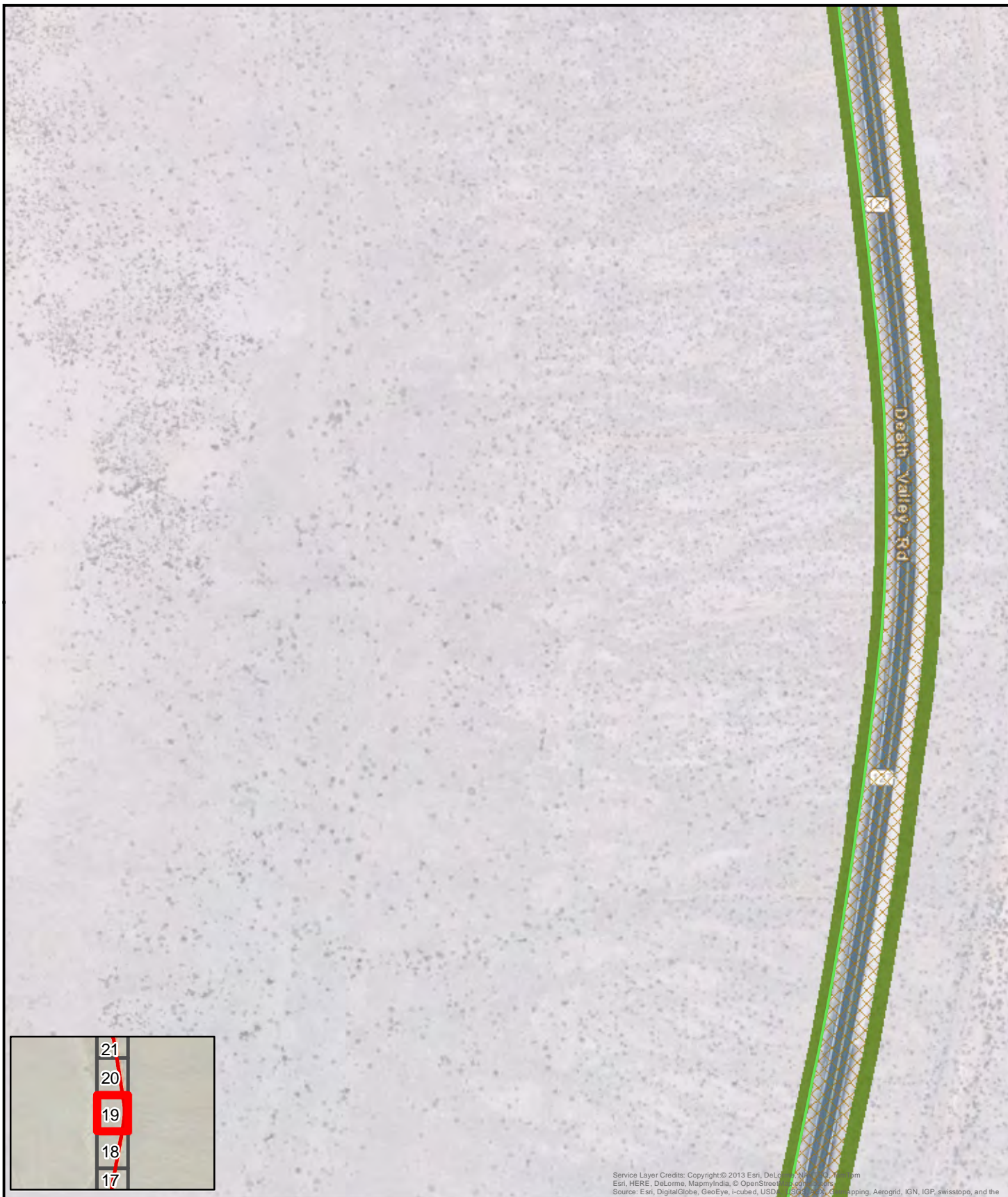
AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

Name: 20692 BTR Fig 3 Veg Survey.Mxd
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Legend

FOC Line

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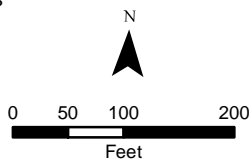


Figure 3
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Vegetation Survey Maps



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Vegetation Community

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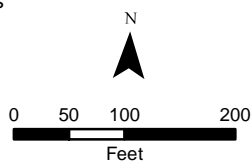


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

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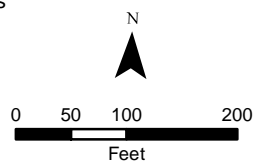


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Vegetation Community

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- Mixed Saltbush Series

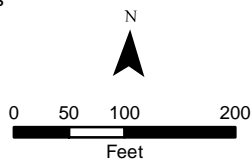


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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Vegetation Community

- Creosote Bush-White Bursage Scrub Series
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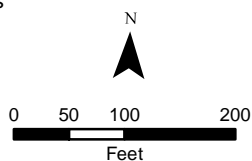


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



Legend

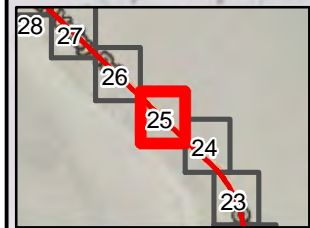
FOC Line

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Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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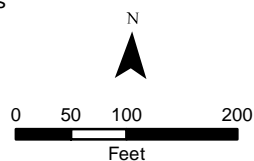


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Vegetation Community

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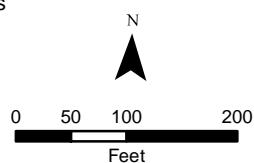


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Vegetation Community

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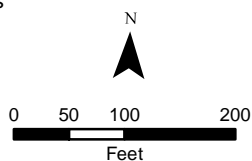


Figure 3 AT&T Highway 127 Project Vegetation Survey Maps

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Segment 2

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Legend

FOC Line

- Segment 1
- Segment 2
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- Segment 4
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Vegetation Community

- Creosote Bush-White Bursage Scrub Series
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- Dry Lakebed
- Mixed Saltbush Series



0 50 100 200
 Feet

Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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Vegetation Community

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Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

FOC Line

- Segment 1
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Vegetation Community

- Creosote Bush-White Bursage Scrub Series
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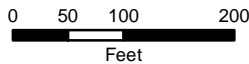
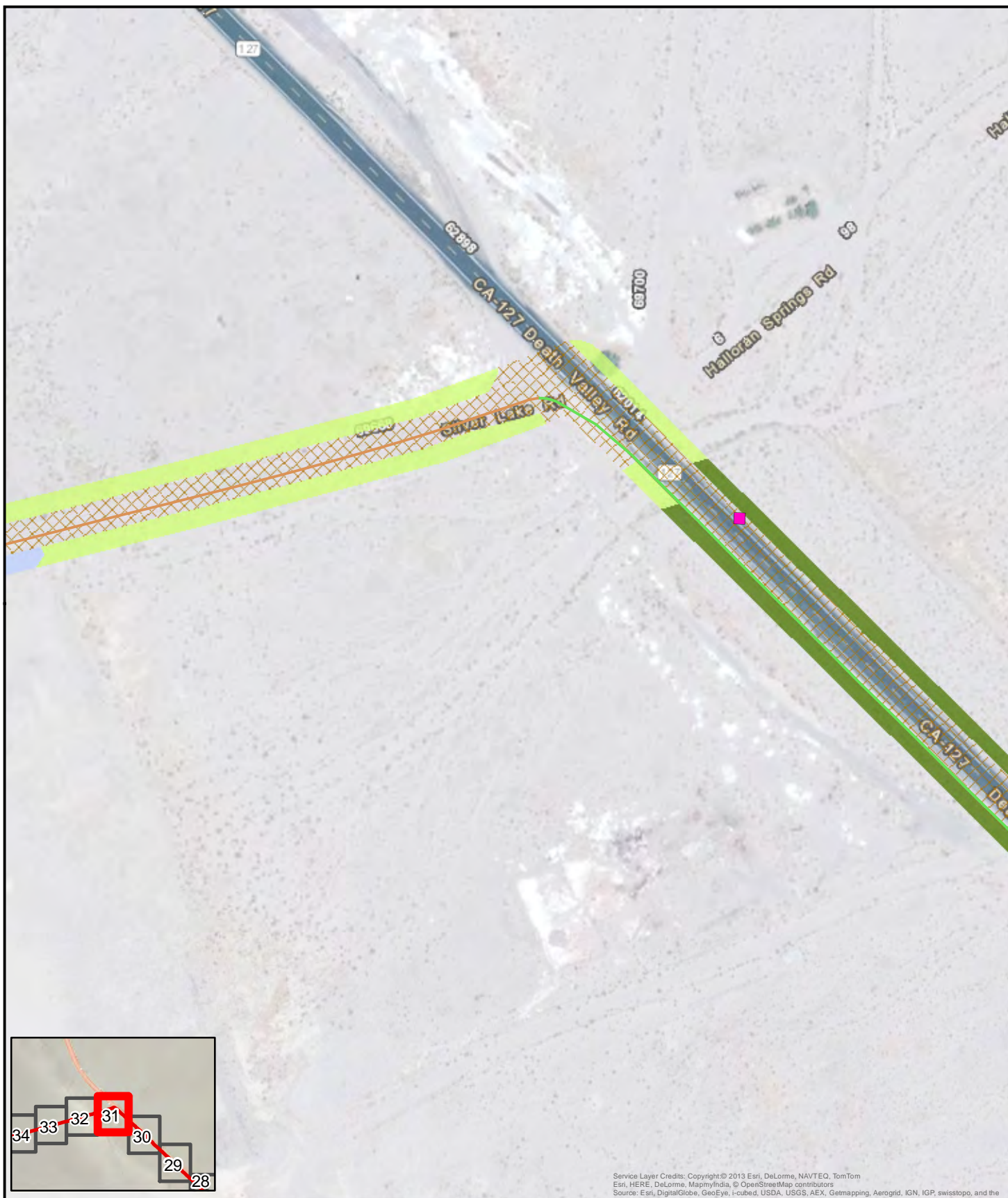


Figure 3
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 Vegetation Survey Maps



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Vegetation Community

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Figure 3

AT&T Highway 127 Project Vegetation Survey Maps



Legend

FOC Line

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Vegetation Community

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Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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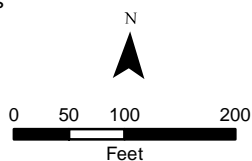


Figure 3
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 Vegetation Survey Maps



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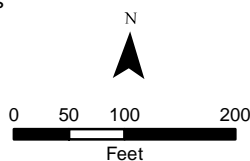
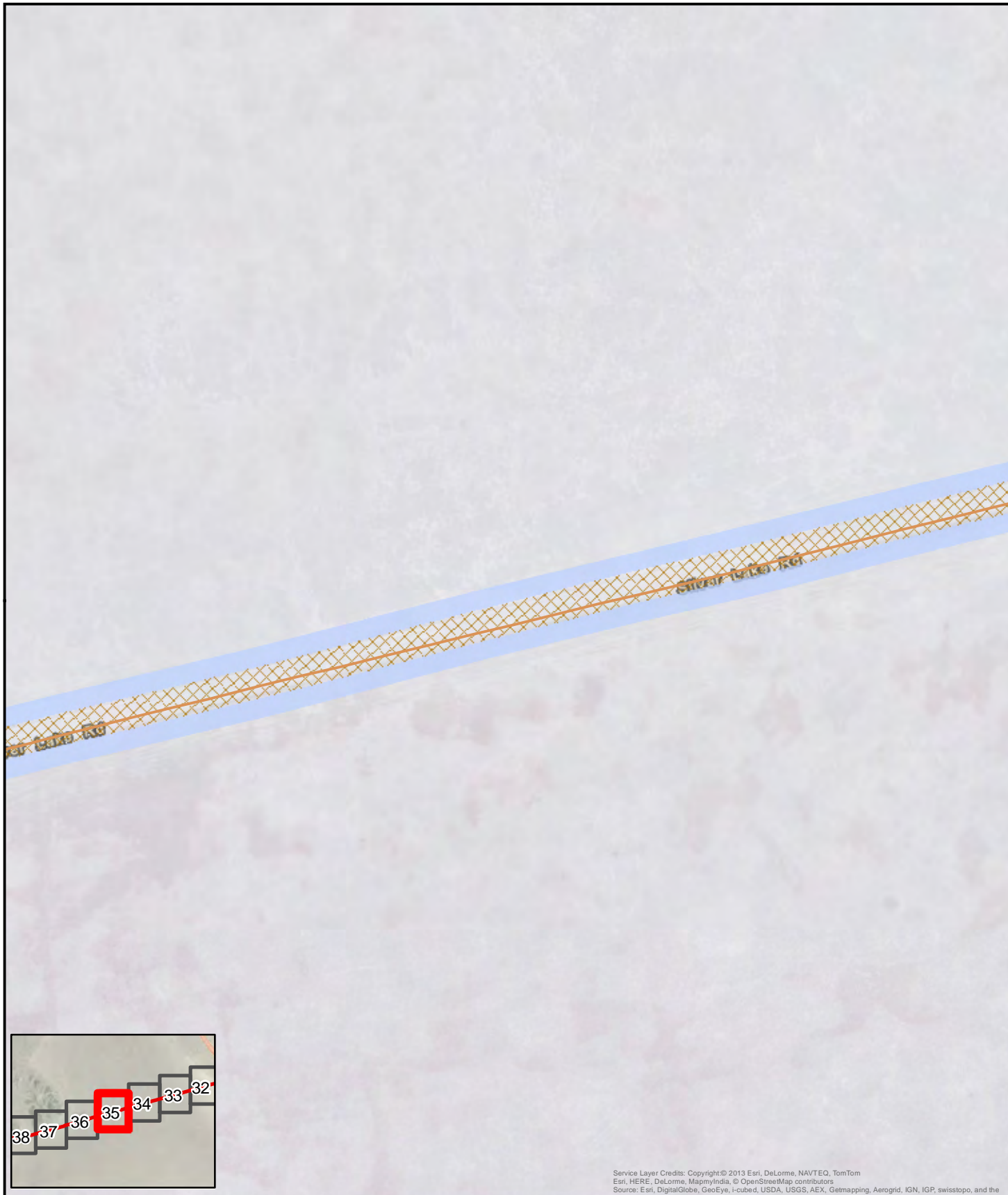


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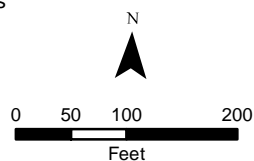


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- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

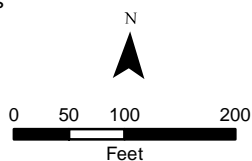


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Service Layer Credits: Copyright © 2013 Esri, DeLorme, NAVTEQ, TomTom
 Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
 Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the

Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

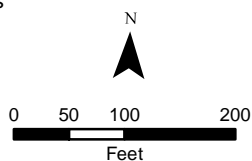


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

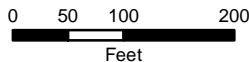


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

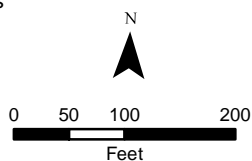


Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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 Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the

Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

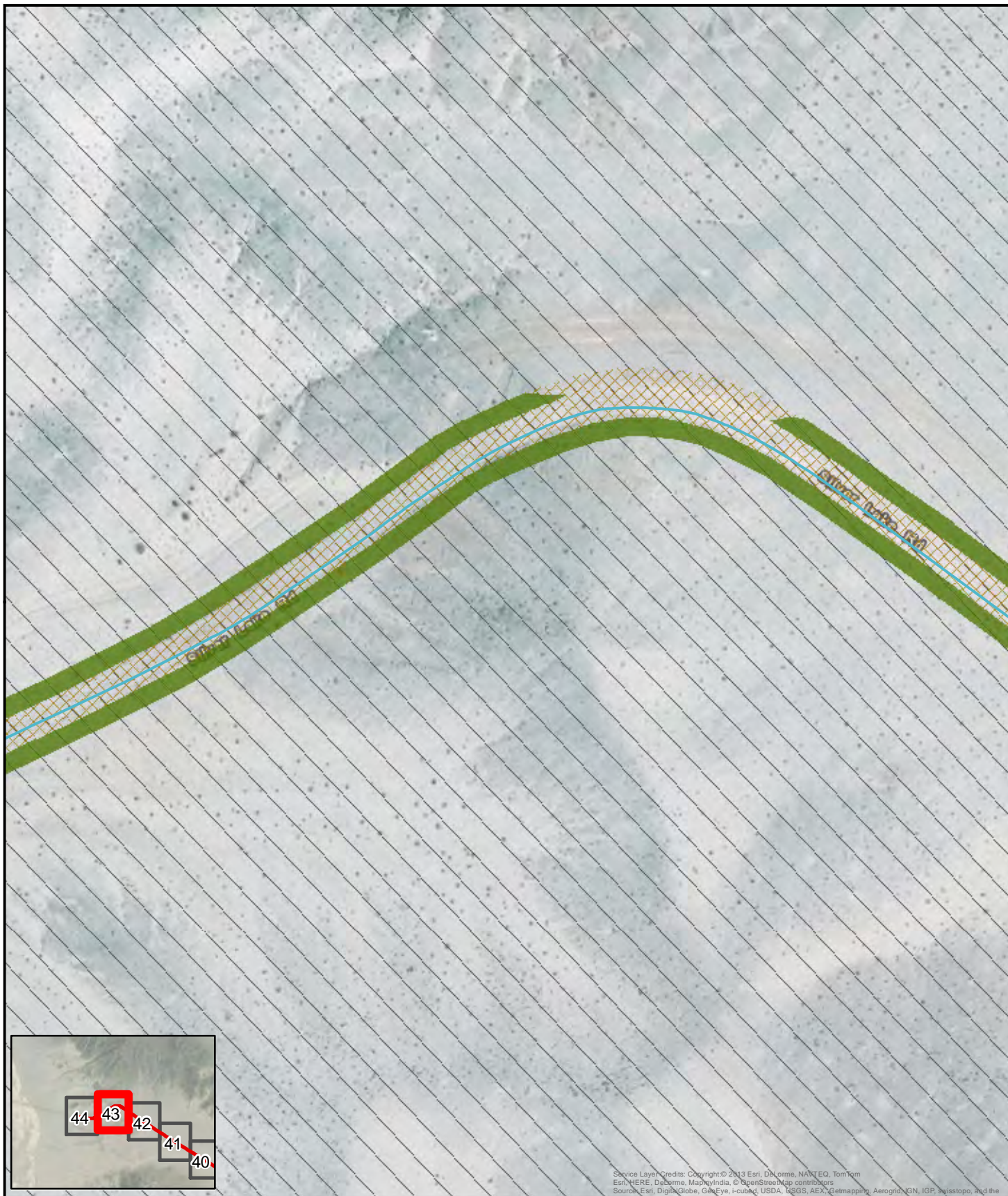
Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series



0 50 100 200
 Feet

Figure 3
 AT&T Highway 127 Project
 Vegetation Survey Maps



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series



0 50 100 200
Feet

Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps

Page 43 of 44

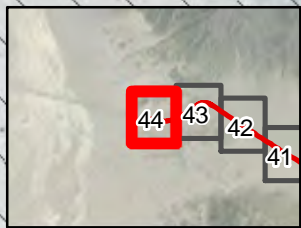
Segment 4

Name: 20692 BTR Fig 3 Veg Survey.Mxd
Date Saved: 7/11/2014, Author: msimmons



Silver Lake Rd

Silver Lake Rd



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Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Vegetation Community

- Creosote Bush-White Bursage Scrub Series
- Disturbed/Developed
- Dry Lakebed
- Mixed Saltbush Series

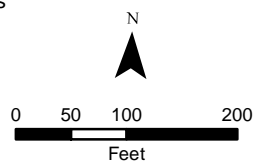


Figure 3
AT&T Highway 127 Project
Vegetation Survey Maps

Board (RWQCB), and/or CDFW. Chambers Group's biologists examined the survey area to identify potential USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), RWQCB jurisdiction pursuant to Section 401 of the CWA and Porter-Cologne Act, and CDFW jurisdiction pursuant to Section 1602 of the State of California Fish and Game Code. Suspected jurisdictional areas identified during the literature review were field checked for the presence of riparian vegetation, definable channels, and Ordinary High Water Marks (OHWM). The lateral extent of a jurisdictional drainage can be measured in several ways, depending on the particular situation. The outer edge of riparian vegetation is used as the line of demarcation between riparian and upland habitats and is, therefore, an identifiable boundary of the lateral extent of a CDFW jurisdictional drainage. On smaller streams or dry washes with little or no riparian habitat, the edge of the uppermost bank may be used to mark the CDFW jurisdictional drainage.

2.3.2 Sensitive Species Focused Surveys

Focused surveys were conducted for the Project to determine presence or absence of listed or otherwise sensitive species with a potential to be present on or adjacent to the ROW that require surveys by various state and/or federal agencies. Sensitive species observations and/or observations of sensitive species sign (e.g., scat, etc.) were recorded using Garmin 72 Geographic Positioning System (GPS) units and mapped on aerial photography using Geographical Information System (GIS) software.

Focused Plant Surveys

Chambers Group conducted the biological reconnaissance-level survey on February 5, 2014. Based on the literature search and reconnaissance survey, 11 sensitive California Rare Plant Rank (CRPR) species were determined to have potential for occurrence on the Project ROW. None of the 11 species are federally or state listed as threatened or endangered species.

Construction activities have the potential to impact habitat, including the topsoil and seed bank, within Segment 1; therefore, a focused plant survey was required and conducted within suitable habitat in this segment for all plant species with a potential to occur within Segment 1. Construction activities within Segments 2, 3, and 4 would either not result in uprooting vegetation and the topsoil and seed bank would remain intact, will be completely contained within existing maintained dirt roads and shoulders along SR-127, or will be within the dirt road where the Project ROW overlaps Silver Lake Road; therefore, no focused plant surveys were required or conducted within these segments.

A sensitive species is considered to potentially occur in a Project area if its known geographic range includes part of the Project area or an adjacent USGS 7.5-minute quadrangle and/or if the general habitat or environmental conditions (e.g., soil type, etc.) required for the species are present. The criteria for evaluating a species potential for occurrence (PFO) on a Project is presented in Table 3.

Table 3: Criteria for Evaluating Sensitive Plant Species Occurrences

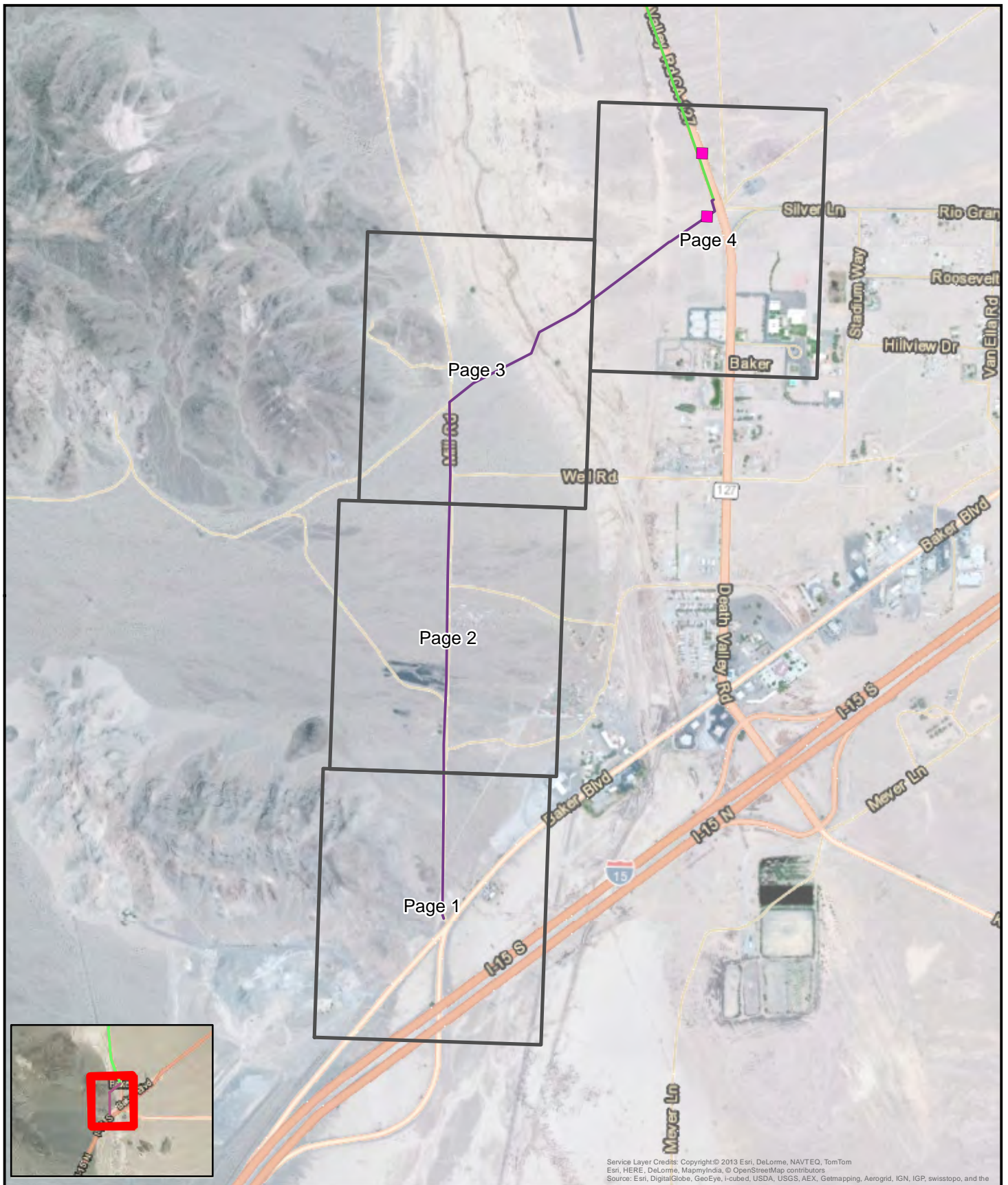
PFO	CRITERIA
Absent:	Species was not observed during focused surveys conducted at an appropriate time for identification of the species, or species is restricted to habitats or environmental conditions that do not occur within the Project.
Low:	Habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either habitat requirements or environmental conditions associated with the species occur within the Project; or marginal habitat exists within the site and a historical record exists of the species within the immediate vicinity of the Project site.
High:	Both the habitat requirements and environmental conditions associated with the species occur within the Project and a historical record exists of the species within the Project or its immediate vicinity.
Present:	Species was detected within the Project at the time of the survey.

Chambers Group's qualified biologists surveyed in accordance with CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2009). To ensure the detection of rare plants, surveys were conducted during the blooming period of April in order to optimally observe the 13 sensitive plant target species. The survey was conducted on April 1, 2014, by Rebecca Alvidrez and Rebecca Cano. The focused plant survey area included habitat within the Project ROW within Segment 1, the potential staging area for the Project, as well as a 20- to 30-foot-wide buffer on either side of the ROW along Segment 1 and around the potential staging area (Figure 4). Botanists walked parallel transects spaced approximately 10 to 15 feet apart within suitable habitat and visually surveyed for any signs of the target plant species. The transect widths were decreased in areas with a high potential to support small stature plants, or as needed.

All plant species detected during the surveys were recorded and are included in Appendix B. Plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations in *The Jepson Manual Second Edition* (Baldwin et al. 2012). Plant nomenclature follows that of *The Jepson Manual Second Edition* (Baldwin et al. 2012).

Focused Wildlife Surveys

Chambers Group's biologists conducted focused wildlife surveys for the Project. Wildlife surveys were conducted within the 12-mile Project ROW (Segments 1 through 4), Project access roads, the Project potential staging area, and a 60-foot-wide buffer on either side of the ROW, access roads, and around the potential staging area (Wildlife Survey Area/Action Area). The survey effort also included perimeter transects at 200, 400, and 600 meters from the FOC line. Wildlife surveys included a focused burrowing owl survey and a presence/absence survey for desert tortoise. All burrowing owl and desert tortoise sign were recorded on Desert Tortoise Presence/Absence Forms (Appendix E).



Legend

FOC Line

■ Vault

- Segment 1
- Segment 2
- Segment 3
- Segment 4

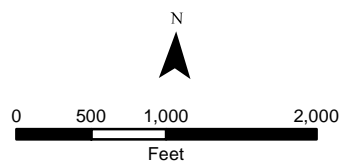


Figure 4
AT&T Highway 127 Project
Sensitive Plant Survey Area Maps

Overview Map

Name: 20692 BTR Fig 4 Sensitive Plant Surv over.Mxd
Date Saved: 7/11/2014, Author: msimmons





Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Sensitive Plants Survey

- Survey Area

Figure 4
AT&T Highway 127 Project
Sensitive Plant Survey Area Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Sensitive Plants Survey

- Survey Area

Figure 4
 AT&T Highway 127 Project
 Sensitive Plant Survey Area Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Sensitive Plants Survey

- Survey Area

Figure 4
 AT&T Highway 127 Project
 Sensitive Plant Survey Area Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Sensitive Plants Survey

- Survey Area

Figure 4
 AT&T Highway 127 Project
 Sensitive Plant Survey Area Maps

Burrowing Owl Survey

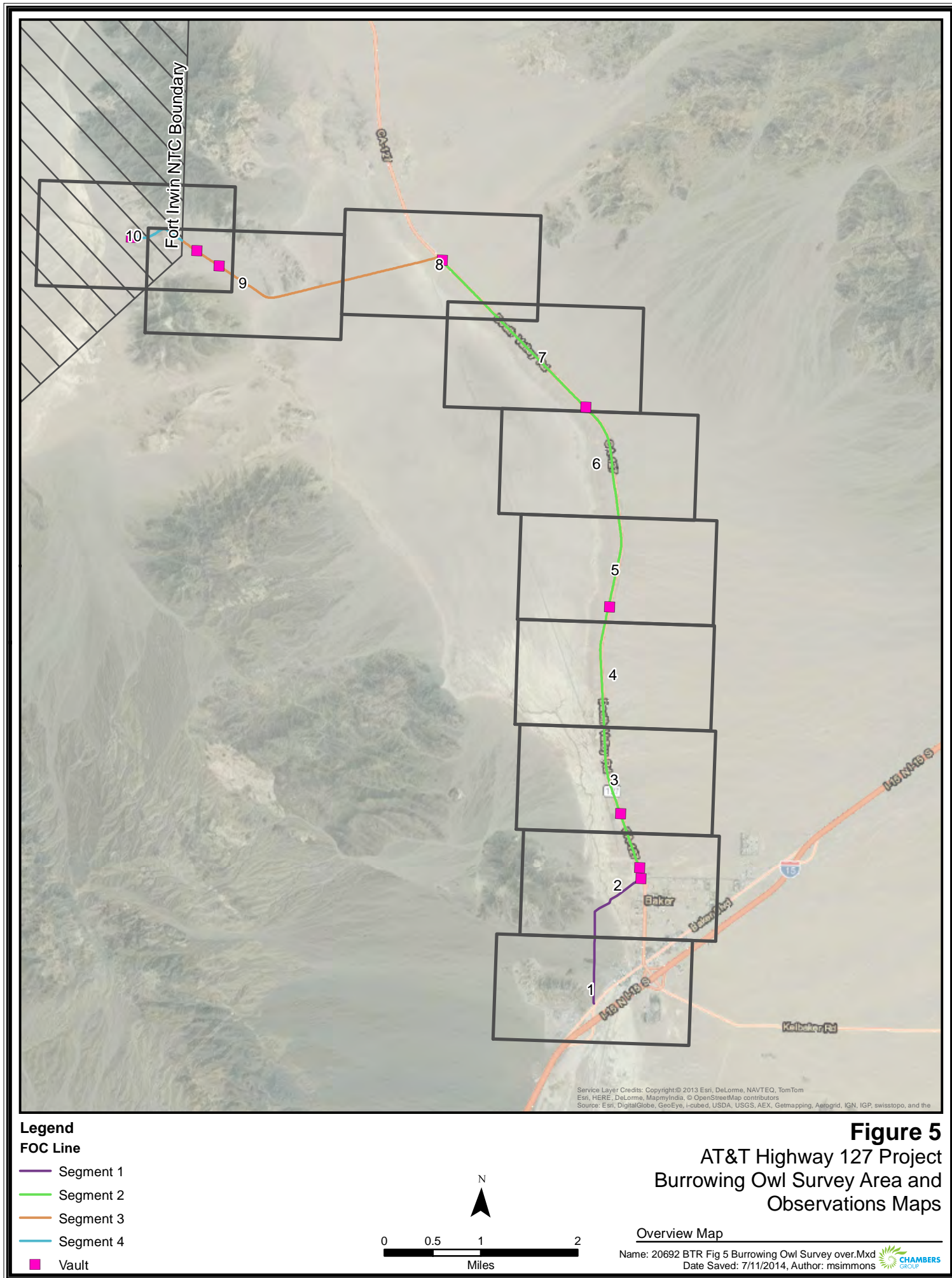
Chambers Group's qualified biologists conducted a focused burrowing owl survey concurrently with the desert tortoise presence/absence survey on April 8 to 11 and April 14 to 17, 2014. Biologists visually searched the Wildlife Survey Area for any signs of the burrowing owl while walking parallel transects spaced approximately 15 feet apart (depending on topography) within suitable habitat, resulting in 100 percent visual coverage of the Wildlife Survey Area and perimeter transects within suitable habitat.

Potential burrowing owl burrows were examined for burrowing owl sign and any evidence of burrowing owl. Details on signs of burrowing owl activity (e.g., whitewash, prey remains, pellets, burrows, scratch marks, or feathers) were recorded on data sheets (Appendix E). The Wildlife Survey Area and location of any burrowing owls and/or sign were recorded using GPS units and are included in Figure 5.

Desert Tortoise Survey

Chambers Group's qualified biologists conducted presence/absence surveys for the federally and state listed as threatened desert tortoise within the Wildlife Survey Area/Action Area on April 8 to 11 and surveyed 200-, 400-, and 600-meter perimeter transects on April 14 to 17, 2014, in accordance with protocol set forth by the U.S. Fish and Wildlife Service (USFWS 2010b), and concurrently with the focused burrowing owl survey. Biologists visually surveyed the Action Area and perimeter transects for any signs of desert tortoise. Within the Wildlife Survey Area/Action Area, parallel transects were spaced approximately 15 feet apart (depending on topography) within suitable habitat, resulting in 100 percent visual coverage of the survey area within suitable habitat.

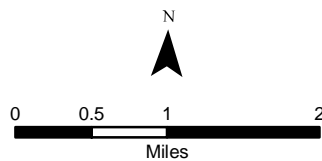
Habitat conditions for each transect were documented and included vegetation communities, soil types, landscape usage, topography, weather conditions, and the amount of existing human-caused disturbance. All signs of desert tortoises including live tortoises, shell, bones, scutes, limbs, scat, burrows, pellets, tracks, egg shell fragments, courtship rings, drinking sites, and mineral licks were recorded on standardized data sheets (Appendix E). If a burrow was observed, a mirror was used to reflect sunlight into the burrow to determine if desert tortoise were present. The survey area and locations of all desert tortoise and sign were recorded using GPS units and are included in Figure 6.



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault



Overview Map

Name: 20692 BTR Fig 5 Burrowing Owl Survey over.Mxd
Date Saved: 7/11/2014, Author: msimmons

Figure 5

AT&T Highway 127 Project
Burrowing Owl Survey Area and
Observations Maps



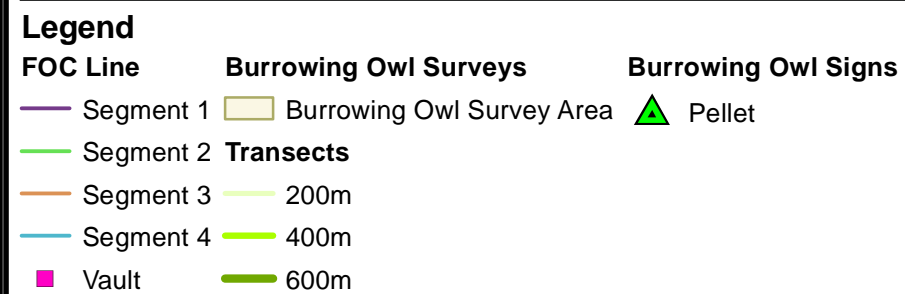


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



Legend

FOC Line	Burrowing Owl Surveys	Burrowing Owl Signs
— Segment 1	■ Burrowing Owl Survey Area	▲ Pellet
— Segment 2	Transects	
— Segment 3	— 200m	
— Segment 4	— 400m	
■ Vault	— 600m	

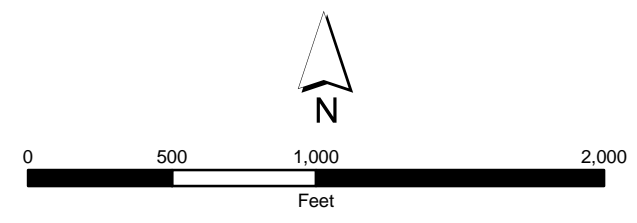


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



Legend

FOC Line	Burrowing Owl Surveys	Burrowing Owl Signs
Segment 1	Burrowing Owl Survey Area	Pellet
Segment 2	Transects	
Segment 3	200m	
Segment 4	400m	
Vault	600m	

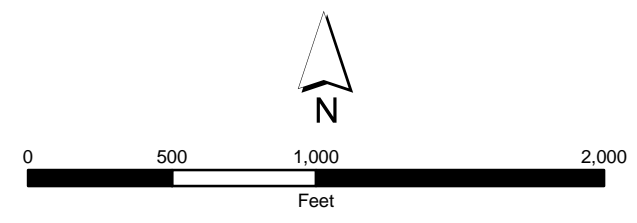


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



Legend

FOC Line

Segment 1

Segment 2

Segment 3

Segment 4

Vault

Burrowing Owl Surveys

Burrowing Owl Survey Area

Transects

200m

400m

600m

Burrowing Owl Signs

Pellet

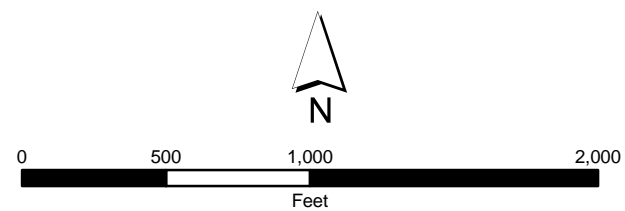


Figure 5
AT&T Highway 127 Project
Burrowing Owl Survey Area and
Observations Maps



Legend
FOC Line
 Segment 1
 Segment 2
 Segment 3
 Segment 4
 Vault

Burrowing Owl Surveys
 Burrowing Owl Survey Area
Transects
 200m
 400m
 600m

Burrowing Owl Signs
 Pellet

Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps

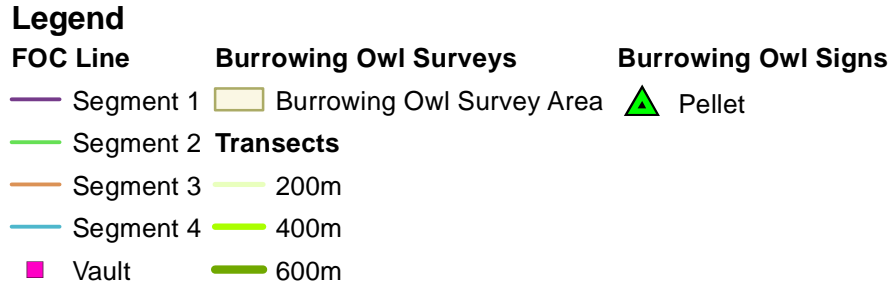


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



Legend

FOC Line	Burrowing Owl Surveys	Burrowing Owl Signs
Segment 1	Burrowing Owl Survey Area	Pellet
Segment 2	Tansects	
Segment 3	200m	
Segment 4	400m	
Vault	600m	

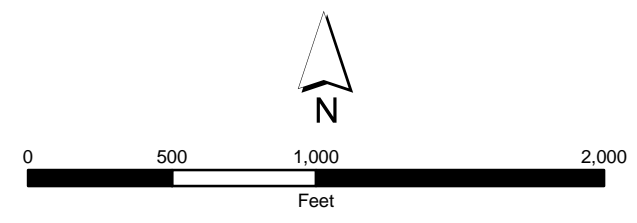


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



Legend

FOC Line	Burrowing Owl Surveys	Burrowing Owl Signs
Segment 1	Burrowing Owl Survey Area	Pellet
Segment 2	Transects	
Segment 3	200m	
Segment 4	400m	
Vault	600m	

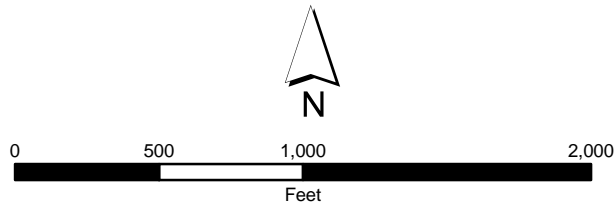


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



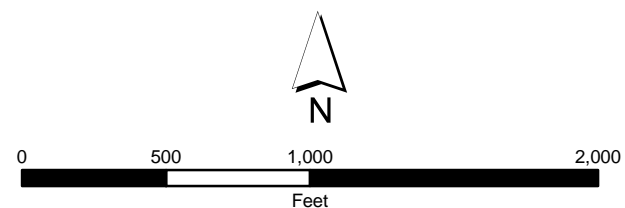
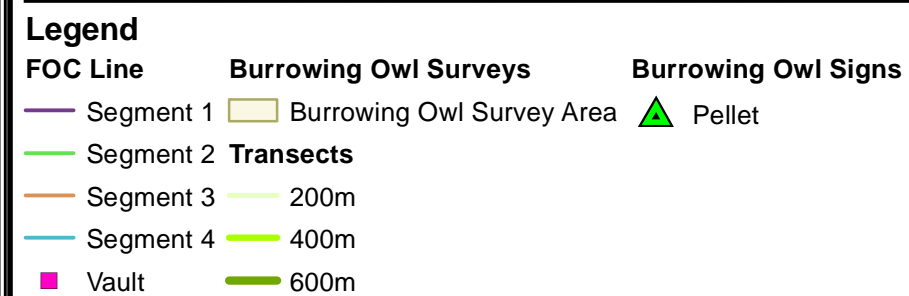
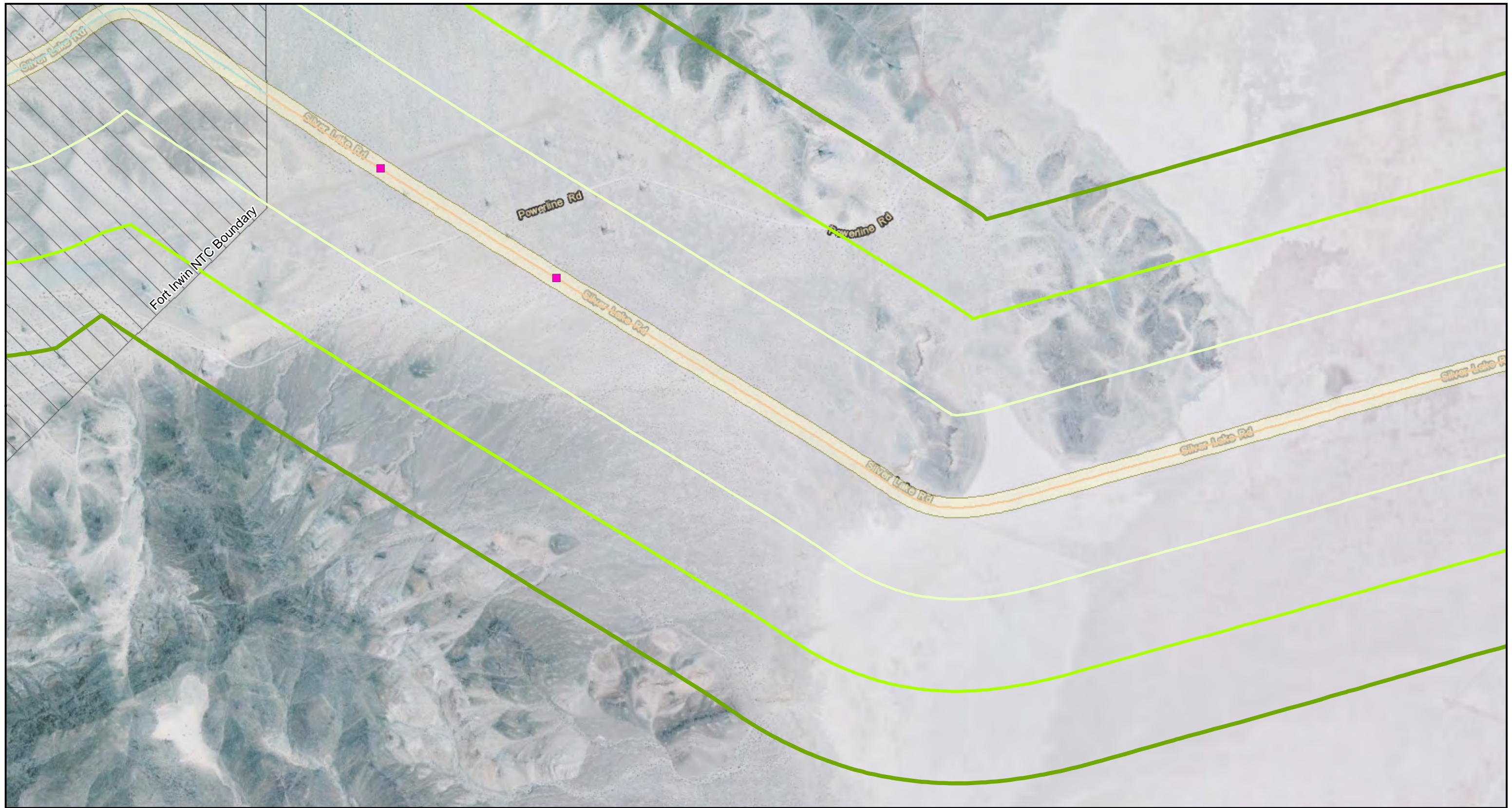
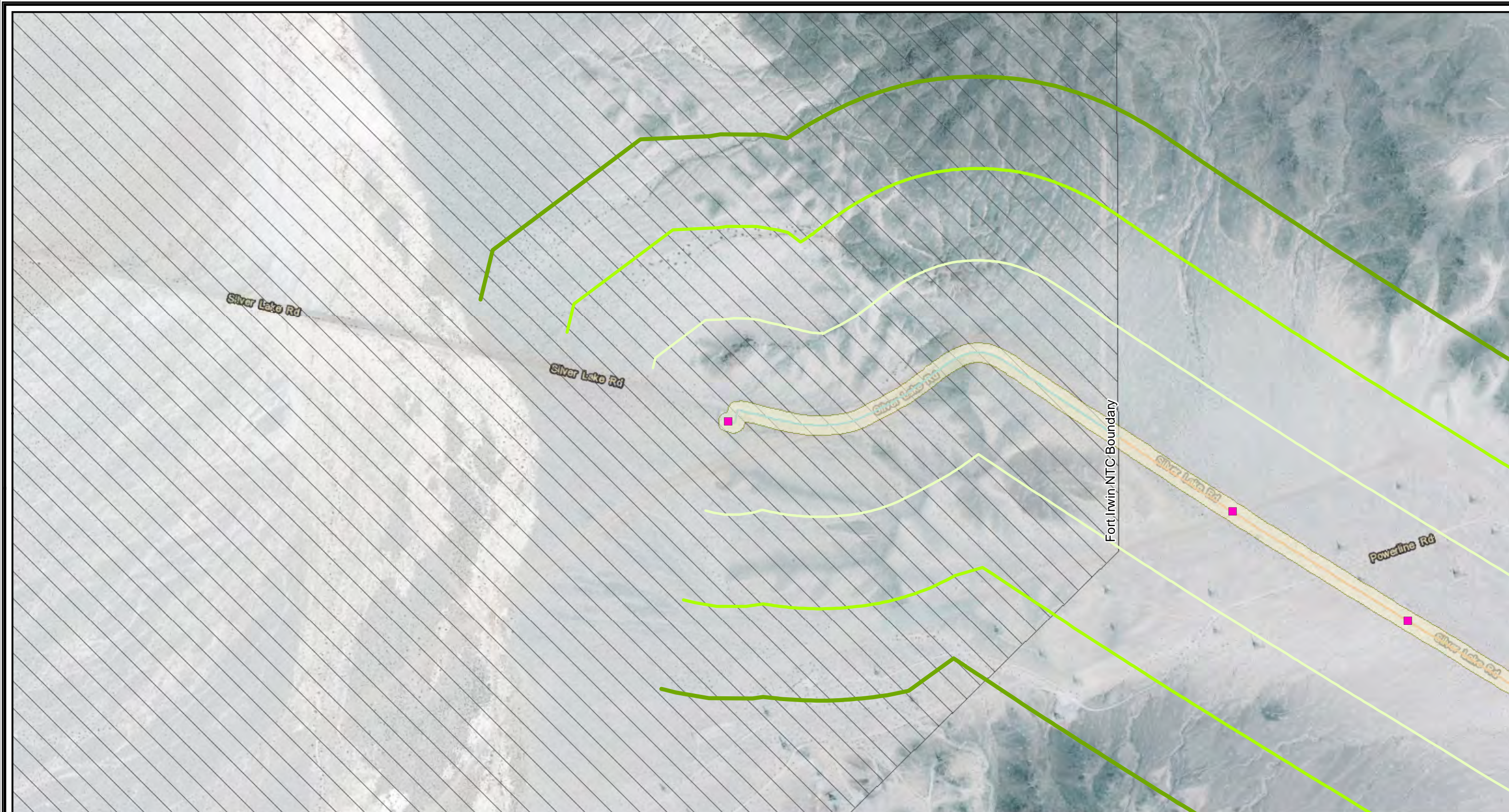


Figure 5
 AT&T Highway 127 Project
 Burrowing Owl Survey Area and
 Observations Maps



Legend

FOC Line

Segment 1

Segment 2

Segment 3

Segment 4

Vault

Burrowing Owl Surveys

Burrowing Owl Survey Area

Transects

200m

400m

600m

Burrowing Owl Signs

Pellet

0 500 1,000 2,000

Feet

N

Figure 5

AT&T Highway 127 Project

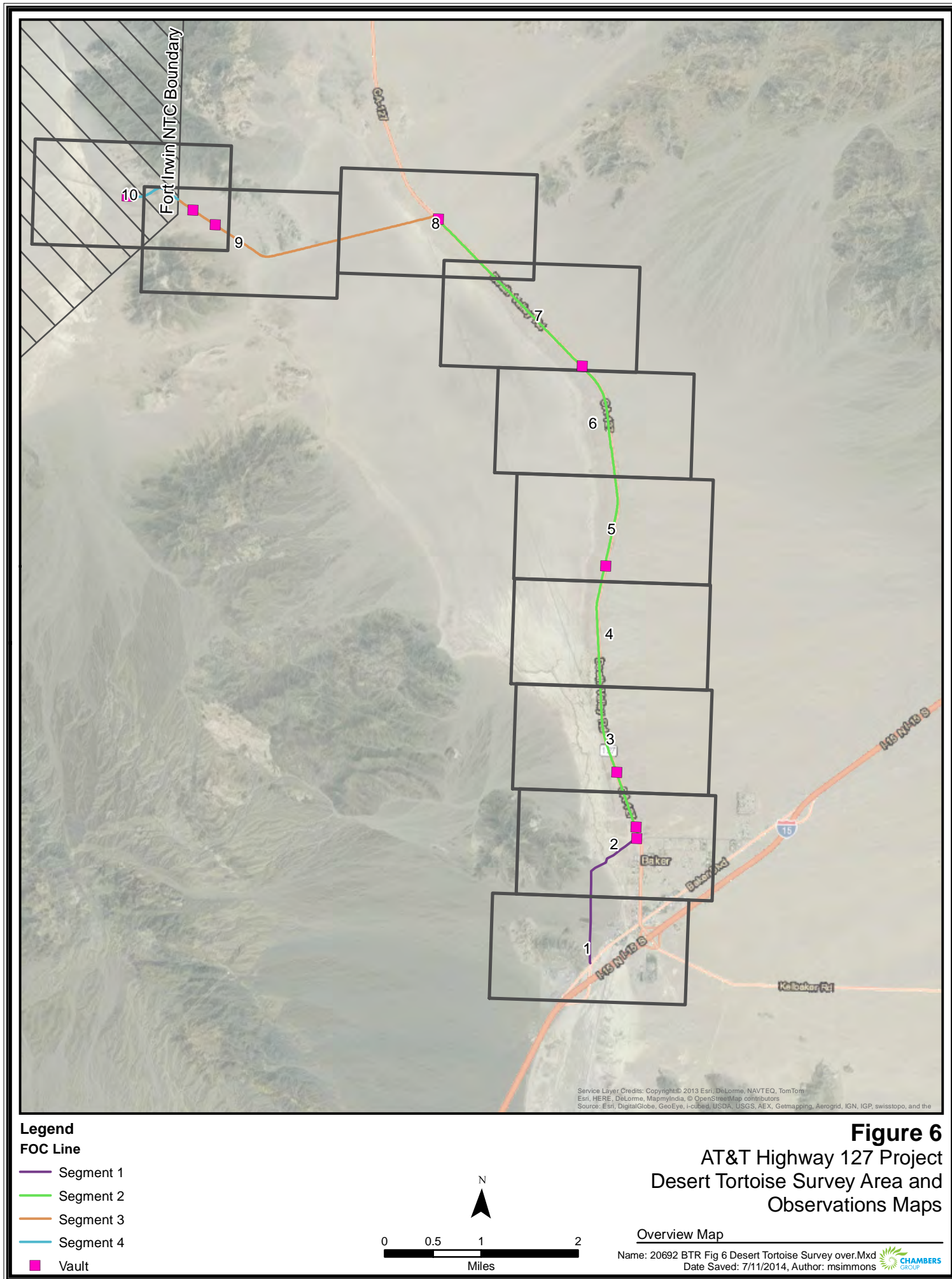
Burrowing Owl Survey Area and Observations Maps

Page 10 of 10

Segment 3/4

Name: 20692 BTR Fig 5 Burrowing Owl Survey_.Mxd
Print Date: 7/11/2014, Author: msimmons

CHAMBERS GROUP





Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- ☆ Live Desert tortoise
- Burrow
- ◇ Egg shell fragments
- ⊕ Remains
- △ Scat
- ⬡ Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None**

Figure 6

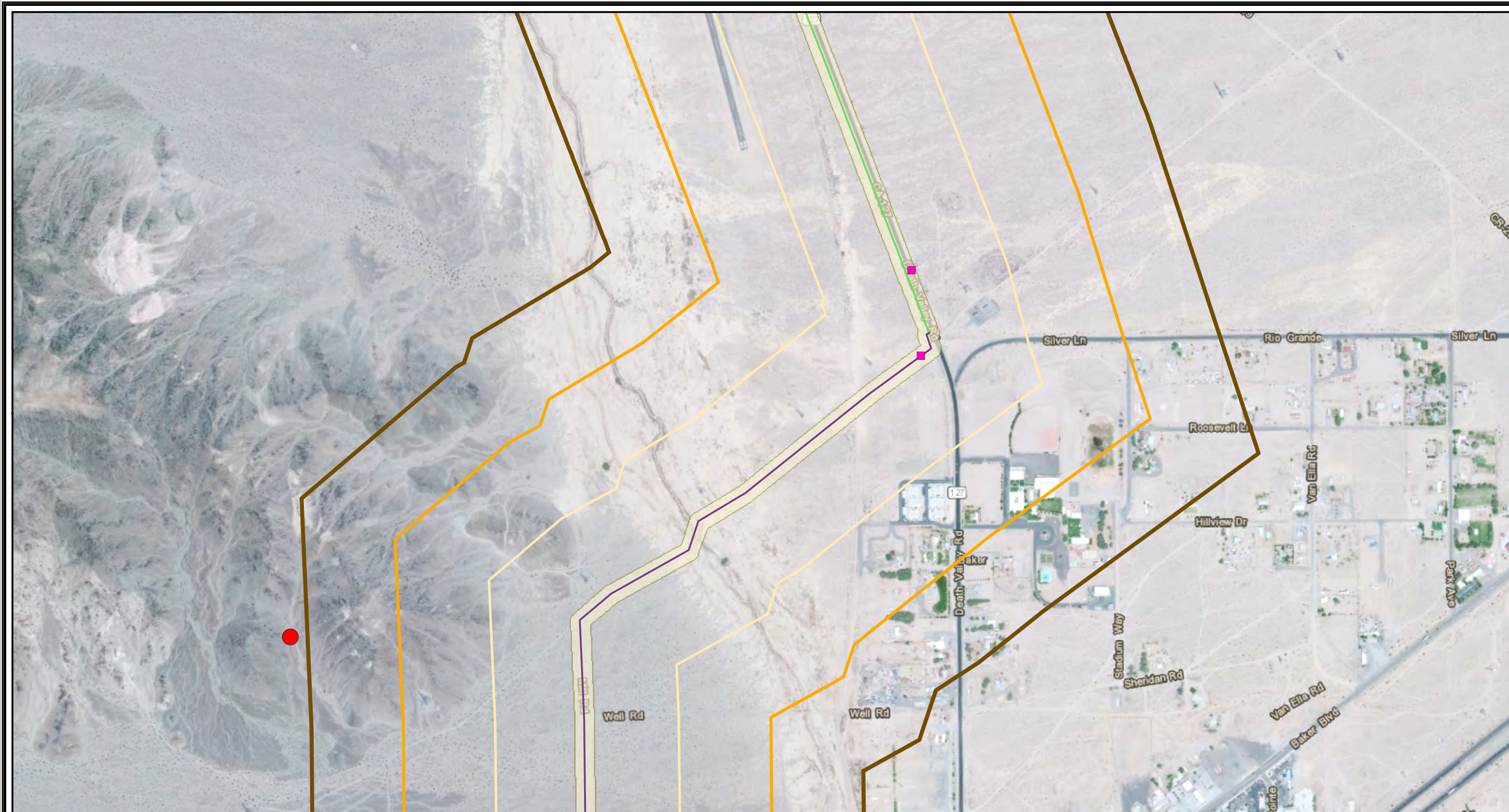
AT&T Highway 127 Project

Desert Tortoise Survey Area and

Observations Maps

Page 1 of 10 Segment 1

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- ☆ Live Desert tortoise
- Burrow
- ◇ Egg shell fragments
- ⊕ Remains
- △ Scat
- ⬡ Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

Figure 6

AT&T Highway 127 Project

Desert Tortoise Survey Area and Observations Maps

Page 2 of 10

Segment 1/2

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- Live Desert tortoise
- Burrow
- Egg shell fragments
- Remains
- Scat
- Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

Figure 6

AT&T Highway 127 Project
Desert Tortoise Survey Area and
Observations Maps

Page 3 of 10

Segment 2

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- Live Desert tortoise
- Burrow
- Egg shell fragments
- Remains
- Scat
- Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

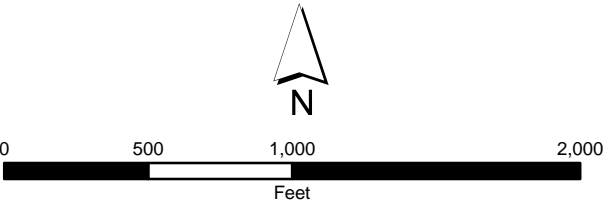


Figure 6
AT&T Highway 127 Project
Desert Tortoise Survey Area and
Observations Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area
- Transects**
 - 200m
 - 400m
 - 600m

Desert Tortoise Sign

- Live Desert tortoise
- Burrow
- Egg shell fragments
- Remains
- Scat
- Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

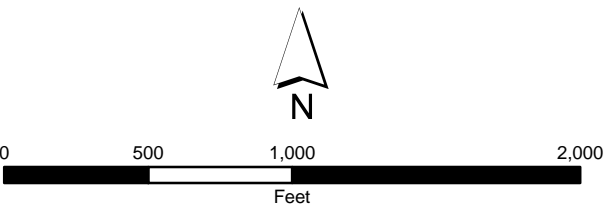


Figure 6
AT&T Highway 127 Project
Desert Tortoise Survey Area and
Observations Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area
- Transects**
 - 200m
 - 400m
 - 600m

Desert Tortoise Sign

- Live Desert tortoise
- Burrow
- Egg shell fragments
- Remains
- Scat
- Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

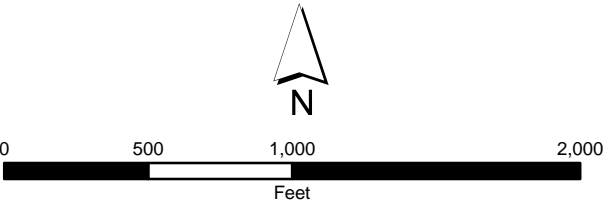


Figure 6
AT&T Highway 127 Project
Desert Tortoise Survey Area and
Observations Maps



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- ☆ Live Desert tortoise
- Burrow
- ◇ Egg shell fragments
- ⊕ Remains
- △ Scat
- ◡ Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

N

0 500 1,000 2,000
Feet

Figure 6

AT&T Highway 127 Project

Desert Tortoise Survey Area and

Observations Maps

Page 7 of 10

Segment 2

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- ☆ Live Desert tortoise
- Burrow
- ◇ Egg shell fragments
- ⊕ Remains
- △ Scat
- ⬠ Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

Feet

Figure 6

AT&T Highway 127 Project

Desert Tortoise Survey Area and

Observations Maps

Page 8 of 10 Segment 2/3

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

- Desert Tortoise Survey Area
- Transects**
- 200m
- 400m
- 600m

Desert Tortoise Sign

- ☆ Live Desert tortoise
- Burrow
- ◇ Egg shell fragments
- ⊕ Remains
- △ Scat
- ⬠ Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

Feet

Figure 6

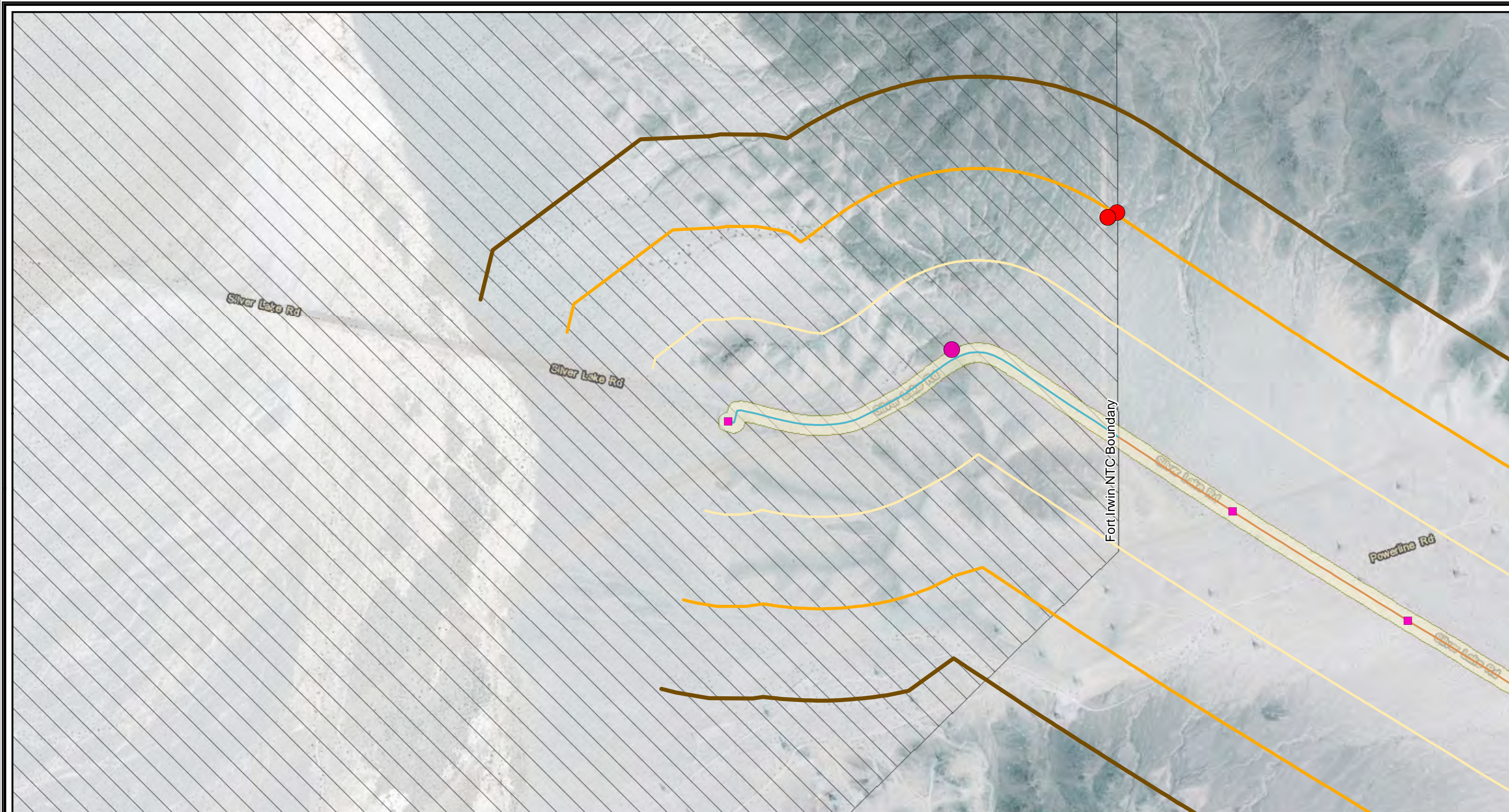
AT&T Highway 127 Project

Desert Tortoise Survey Area and

Observations Maps

Page 9 of 10 Segment 3/4

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons



Legend

FOC Line

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Vault

Desert Tortoise Surveys

Desert Tortoise Survey Area

Transects

- 200m
- 400m
- 600m

Desert Tortoise Sign

- Live Desert tortoise
- Burrow
- Egg shell fragments
- Remains
- Scat
- Pallet

Class

- 1
- 2
- 3
- 4
- 5
- None

Figure 6

AT&T Highway 127 Project

Desert Tortoise Survey Area and

Observations Maps

Page 10 of 10

Segment 3/4

Name: 20692 BTR Fig 6 Desert Tortoise Survey.Mxd
Print Date: 7/11/2014, Author: msimmons

SECTION 3.0 – RESULTS

3.1 LITERATURE REVIEW

3.1.1 Status Codes

The following information is a list of abbreviations used to help determine the significance of biological resources potentially occurring on the Project ROW.

Federal

FE	=	Federally listed; Endangered
FT	=	Federally listed; Threatened
FC	=	Federal Candidate for listing
FSC	=	Federal Species of Special Concern

State

ST	=	State listed; Threatened
SE	=	State listed; Endangered
SC	=	State Candidate for Listing
SP	=	State protected
SSC	=	State Species of Special Concern

California Rare Plant Rank (CRPR) [Formally known as CNPS Lists]

List 1A	=	Plants presumed extinct in California.
List 1B	=	Plants rare and endangered in California and throughout their range.
List 2	=	Plants rare, threatened or endangered in California but more common elsewhere in their range.
List 3	=	Plants about which we need more information; a review list.
List 4	=	Plants of limited distribution; a watch list.

CRPR Extensions

0.1	=	Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2	=	Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3	=	Not very endangered in California (less than 20 percent of occurrences threatened).

Bureau of Land Management

BLM	=	Species designated as sensitive by the BLM Barstow Office.
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3.1.2 Plants

The literature review resulted in a list of seven plant species that have been known to occur within five miles of the Project area. After an assessment of the various habitat types within the Project ROW, it was determined that five sensitive plant species have the potential to occur within the Project ROW. Because proposed impacts to vegetation are only expected within Segments 1 and 2, plants with a potential to occur on the Project, only have a potential to occur within Segments 1 and 2.

Factors used to determine potential for occurrence include: vegetation communities present, elevation, and soil type within the Project ROW. In addition, the location of prior CNDDDB records of occurrence, were used as additional data, but because the CNDDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors. The following provides these seven sensitive plant species and their potentials to occur. Current listing status for each species is provided after its scientific name.

The following two plant species are considered **absent** from all four Segments of the Project ROW due to a lack of suitable habitat present or because the species occurs outside the elevation range found within the Project ROW:

- Emory's crucifixion thorn (*Castela emoryi*) – CRPR 2.3
- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) – BLM, CRPR 1B.2

The following two species have a **low** potential to occur within Segments 1 and 2 of the Project ROW due to the presence of poor quality habitat:

- white bear poppy (*Arctomecon merriamii*) – CRPR 2.2
- Death Valley sandpaper plant (*Petalonyx thurberi* ssp. *gilmanii*) – BLM, CRPR 1B.3

The following two species have a **moderate** potential to occur within Segments 1 and 2 of the Project ROW due to the presence of marginally suitable habitat:

- white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) – BLM, CRPR 1B.2
- Parish's phacelia (*Phacelia parishii*) – BLM, CRPR 1B.1

The following species has a **high** potential to occur within Segments 1 and 2 of the Project ROW due to the presence of suitable habitat. Historical occurrences have been reported in similar habitat within 5 miles of the Project Route:

- small-flowered androstephium (*Androstephium breviflorum*) – CRPR 2.2

3.1.3 Wildlife

The literature review resulted in a list of eight wildlife species that have been known to occur within five miles of the Project area. After an assessment of the various habitat types within the Project ROW, it was determined that seven sensitive wildlife species have the potential to occur within the Project area and one species is present in the Project area. Factors used to determine potential for occurrence include quality of habitat and impact of surrounding residential development. In addition, the date and location of prior CNDDDB records of occurrence were used as additional data, but since the CNDDDB is a

positive-sighting database, this data was used only in support of the analysis from the previously identified factors. The following identifies these seven sensitive wildlife species and their potentials to occur. Current listing status for each species is provided after its scientific name.

The following wildlife species is considered **absent** from the Project ROW due to a lack of suitable habitat present:

- Mojave fringe-toed lizard (*Uma scoparia*) – SSC, BLM

Due to the presence of poor quality habitat, the following three species have a **low** potential for occurrence on the Project ROW:

- burrowing owl (*Athene cunicularia*) – SSC
- desert tortoise (*Gopherus agassizii*) – **FT, ST**
- Nelson's/desert bighorn sheep (*Ovis canadensis nelson*) – SP, BLM

The following species has a **moderate** potential to occur within the Project ROW (foraging only) due to the presence of marginally suitable habitat:

- Townsend's big-eared bat (*Plecotus townsendii*) – SC, SSC, BLM

Due to the presence of suitable habitat, the following two species have a **high** potential for occurrence on the Project ROW:

- American badger (*Taxidea taxus*) – SSC
- desert kit fox (*Vulpes macrotis*) – SP

The following species was **present** on or near the Project site during surveys conducted by Chambers Group's biologists:

- Swainson's hawk (*Buteo swainsoni*) – **ST**, BLM

3.2 SOILS

After review of USDA Soil Conservation Service and by reviewing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2014), it was determined that data using this resource does not exist at this time.

Soil types observed along the Route during the biological reconnaissance survey included sandy loam within upland vegetation and clay soils within the dry lakebed.

3.3 BIOLOGICAL RECONNAISSANCE-LEVEL SURVEY

The survey was conducted by Chambers Group biologists, Ana Davis, Juan Hernandez, and Saraiah Skidmore between the hours of 0830 and 1115 on February 5, 2014. Photographs of the Project ROW and surrounding areas were recorded to document existing conditions. Weather conditions during the survey included clear skies and no precipitation.

3.3.1 Vegetation Survey

The following section summarizes the principal characteristics of the vegetation communities and non-vegetated areas observed within and adjacent to the Project ROW during the biological reconnaissance survey. Vegetation communities and non-vegetated areas were mapped in the field within the Project ROW and adjacent to the Project ROW and are included on Figure 3. Representative site photographs were taken to document site conditions during the survey (Appendix D). Table 4 presents the approximate acres of minimal use areas and proposed disturbance to each vegetation community or non-vegetated area.

Table 4: Proposed Acres of Disturbance to Vegetation Communities and Non-Vegetated Areas

Vegetation Community	Segment 2 Minimal Use Areas (acres)	Proposed Disturbance (acres)	Total Disturbance (acres)
Vegetation Communities			
Creosote Bush-White Bursage Scrub Series	7.61	0.33	7.94
Mixed Saltbush Series	1.98	0.10	2.08
Vegetation Community Totals	9.59	0.43	10.02
Non-Vegetated Areas			
Disturbed/Developed	0.09	12.69	12.72
Dry Lakebed Road	0.00	6.95	6.95
Non-Vegetated Area Totals	0.09	19.64	19.67
Total Disturbance	9.68	20.01	29.69

*Minimal use areas within Segment 1 will only be used in emergency situations so are not considered impacts to habitat.

*Minimal use areas within Segment 2 will be utilized for the entire length of the Segment and because uprooting has a potential to occur, these areas are considered impacts to habitat.

Vegetation Communities Observed

Creosote Bush-White Bursage Scrub Series 1

Creosote Bush-White Bursage Scrub typically consists of well-drained secondary soils with very low available water holding capacity on slopes, fans, and valleys at elevations up to 3,300 feet amsl (Sawyer and Keeler-Wolf 1995). This community type is dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*), which are normally widely spaced with bare ground between them. Many species of ephemeral herbs may flower in late March and April if the winter rains are sufficient.

Creosote Bush-White Bursage Scrub is present within and adjacent to the Project ROW within Segments 1 and 2 and adjacent to the ROW within Segments 3 and 4. Plant species observed adjacent to the Project typical of this vegetation community include: creosote bush, white bursage, brittlebush (*Encelia farinosa*), desert holly (*Atriplex hymenelytra*), and spiny hopsage (*Grayia spinosa*).

Mixed Saltbush Series 1

Mixed Saltbush Series does not have a sole or dominant species. Saltbush species that may be present in this series include allscale (*Atriplex polycarpa*), big saltbush (*Atriplex lentiformis*), brittlescale (*Atriplex depressa*), fourwing saltbush (*Atriplex canescens*), and/or shadscale (*Atriplex confertifolia*). Ground layer is sparse and the canopy is continuous to open. Mixed saltbush series occurs in habitats with carbonate-rich soils on flats, lower slopes, playas, and valleys at elevations between –250 feet below sea level to 3,300 feet amsl.

Mixed Saltbush Series is present within and adjacent to the Project ROW in Segments 1 and 2 and adjacent to the ROW in Segment 3. Plant species found adjacent to the Project ROW typical of this vegetation community included allscale, with scattered cheesebush and four-wing saltbush (*Atriplex canescens*).

Non-Vegetated Areas Observed

Disturbed/Developed

Disturbed areas are altered and maintained by humans to be devoid of vegetation (cleared or graded) such as dirt roads or heavily compacted areas. Developed areas are unvegetated areas that have been altered by humans and now display man-made structures such as houses, paved roads, buildings, parks, and other maintained areas.

Disturbed/Developed areas exist within all segments of the Project ROW as either maintained dirt roads or shoulders or a paved road as well as other small patches of human caused disturbances resulting in the loss of native vegetation.

Dry Lakebed

Dry lake beds and playas are also known as alkali sinks (Lichvar and Dixon 2007). Soils within these features are high in alkalinity and have poorly drained soils. Low spots of lake beds and playas are occasionally resupplied with water by heavy winter rainfall, but standing water evaporates quickly. The driest areas of alkali sinks are the edges where vegetation communities are dominated by saltbush, mesquite, or alkali sink habitat (Lichvar and Dixon 2007).

The Project ROW crosses Silver Lake in Segment 3 within a non-vegetated existing dirt road (Silver Lake Road), which runs east and west. Project activities will only occur within the existing road and, therefore, will not impact the lakebed outside of the Disturbed/Developed road.

Sensitive Plant Species

The following two species have a **low** potential to occur within Segments 1 and 2 of the Project ROW due to the presence of poor quality habitat for these species within the Project ROW.

White Bear Poppy

White bear poppy is a CRPR 2 species. This perennial herb flowers between April and May. This species can be found in rocky soils of chenopod scrub and Mojavean desert scrub at elevations between 1,607 and 5,905 feet amsl. White bear poppy is known from Inyo and San Bernardino counties. Threats to this species include mining and off-highway vehicles.

Death Valley Sandpaper Plant

Death Valley sandpaper plant is a BLM sensitive and CRPR 1B species endemic to California. This evergreen shrub flowers between May and September and is found in sandy washes, canyons, dunes, and slopes. Habitat includes desert dunes and Mojave desert scrub at elevations between 850 and 4,700 feet amsl. The known range of this species exists in Inyo and San Bernardino counties.

The following two species have a **moderate** potential to occur within Segment 1 of the Project ROW due to the presence of marginally suitable for these species to suitable habitat within the Project ROW.

White-Bracted Spineflower

White-bracted spineflower is a CRPR 1B.2 species. This annual herb flowers from April to June in sandy to gravelly soils of Mojavean desert scrub and pinyon and juniper woodlands at elevations between 1,000 and 4,000 feet amsl. Known ranges include: Los Angeles, Riverside, and San Bernardino counties.

Parish's Phacelia

Parish's phacelia is a CRPR 1B.1 species. This annual herb flowers between April and July and is found on flats, slopes, and dry lake margins in clay or alkaline soils. Habitat includes Mojave desert scrub and playas at elevations between 1,800 and 3,900 feet amsl. The known range of this species exists in San Bernardino County, Arizona, and Nevada. This species is threatened by military activities.

The following species has a **high** potential to occur within Segment 1 of the Project ROW due to the presence of suitable habitat for this species within Segment 1 of the Project ROW and because a historical occurrence has been reported within 5 miles of the Project Route.

Small-Flowered Androstephium

Small-flowered androstephium is a CRPR List 2 species. This perennial, bulbiferous herb flowers between March and April. This species occurs on bajadas in Mojavean desert scrub and desert dunes at elevations between 885 and 5,244 feet amsl. The known range for this species includes: Inyo, Riverside, and San Bernardino counties. This species is threatened by solar development.

Other Sensitive Plants

Cactus species have been identified within proposed disturbance areas within Segments 1 and 2 of the Project Route within creosote bush-white bursage series and mixed saltbush series, vegetation communities.

3.3.2 Wildlife Survey

General

Wildlife species observed or detected during the reconnaissance surveys were characteristic of the existing site conditions. A full list of the wildlife species detected within the Project area is included in Appendix C.

Reptiles

Seven reptile species: chuckwalla (*Sauromalus obesus*), desert iguana (*Dipsosaurus dorsalis*), desert tortoise burrows, common zebra-tailed lizard (*Callisaurus draconoides rhodostictus*), side-blotched lizard (*Uta stansburiana elegans*), Great Basin whiptail (*Aspidoscelis tigris tigris*), and Mohave desert sidewinder (*Crotalus cerastes cerastes*), were observed and/or detected on or adjacent to the Project ROW during biological surveys.

Birds

Project surveys identified 17 bird species observed and/or detected on or adjacent to the Project ROW. Species included: cinnamon teal (*Anas cyanoptera*), western sandpiper (*Calidris mauri*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk (*Buteo swainsoni*), American kestrel (*Falco sparverius*), burrowing owl pellet, white-throated swift (*Aeronautes saxatalis*), Cassin's kingbird (*Tyrannus vociferans*), horned lark (*Eremophila alpestris*), common raven (*Corvus corax*), great-tailed grackle (*Quiscalus mexicanus*), rock wren (*Salpinctes obsoletus*), black-throated sparrow (*Amphispiza bilineata*), house finch (*Carpodacus mexicanus*), loggerhead shrike (*Lanius ludovicianus*), and European starling (*Sturnus vulgaris*).

Mammals

Five mammal species — black-tailed jackrabbit (*Lepus californicus*), white-tailed antelope ground squirrel (*Ammospermophilus leucurus*), kit fox, coyote (*Canis latrans*), and wild burro (*Equus asinus*) — were observed or detected on or adjacent to the Project ROW.

Sensitive Wildlife Species

Eight wildlife species that resulted from the literature search as having habitat in the Project area or that have a potential to be present or were observed present, are described below.

American Badger

The American badger is a SSC. This carnivorous species ranges over most of the western U.S. and upper midwestern U.S. south into central Mexico. In California, the badger may occupy a variety of habitats, especially grasslands, savannas, sandy soils, and deserts. It prefers friable soils for burrowing and relatively open, uncultivated ground. Prey items include pocket gophers and ground squirrels (Jameson and Peeters 1988). The American badger is chiefly nocturnal, but it is often seen by day as well. It gives birth to one to four young from March to April (Jameson and Peeters 1988). Threats to this species include habitat loss due to agriculture, housing, and other land conversions, and illegal hunting.

Habitat, including creosote bush-white bursage series and mixed saltbush series, is present for this species along the Project ROW within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4. The American badger was not observed during Project surveys; however, American badger activity has potential to occur within the Project ROW. Badger activity includes potential burrows, foraging, and passing through within Segments 1 and 2 as well as passing through within Segments 3 and 4.

Burrowing Owl

The burrowing owl is a SSC. Insects form the bulk of its diet in the summer, and small mammals, birds, and reptiles in the winter (Klute et al. 2003). It breeds in open plains from western Canada and throughout the western United States, Mexico through Central America, and into South America to Argentina (Klute et al. 2003) from March through August, with peak periods in May and July. This species inhabits dry, open, native or nonnative grasslands, deserts, and other arid environments with low-growing and low-density vegetation (Ehrlich and Wheye 1988). It may occupy golf courses, cemeteries, road ROW, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows (TLMA 2006). It occupies mammal burrows, such as badger, prairie

dog, and ground squirrel, for subterranean shelter and nesting (Trulio 1997). When burrows are scarce, the burrowing owl may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes (TLMA 2006). One burrow is typically selected for use as the nest; however, satellite burrows are usually found in the immediate vicinity of the nest burrow within the defended territory of the owl. Burrowing owls are active day and night, with peak times at dawn and dusk (Klute et al. 2003). Threats to burrowing owl populations include the loss of and destruction of habitat by agriculture and urban development, the destruction of burrows, and indirect poisoning via rodent eradication efforts (Klute et al. 2003).

Low quality habitat, including creosote bush-white bursage series and mixed saltbush series, is present for this species along the Project ROW within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4. Small mammal activity was low, and few suitable sized burrows were observed within the Project ROW and 60-foot buffer of all Project segments. Recent historic records do not report that burrowing owls have occurred within the vicinity of the Project Route (i.e., within 5 miles of the Project Route). No burrowing owls were observed within the survey area for burrowing owl, but burrowing owl sign was observed outside of the 60-foot buffer during desert tortoise perimeter survey transects. The burrowing owl pellet was observed on the 600-meter desert tortoise perimeter survey transect on April 16, 2014, in a depression of an old fox den, and appeared to be old. Due to the presence of habitat, burrowing owl has the potential to be present during proposed Project activities within or adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4.

Desert Tortoise

The desert tortoise is a federal and state listed threatened species. The desert tortoise ranges from central Nevada and extreme southwestern Utah south through southeastern California and southwestern Arizona into northern Mexico (Berry et al. 2002). In California, the historical range of this species includes northeastern Los Angeles, eastern Kern, eastern San Diego, and southeastern Inyo counties, as well as most of San Bernardino, Riverside, and Imperial counties. The desert tortoise inhabits river washes, rocky hillsides, slopes, and flat deserts with sandy or gravelly soils. Soil conditions must be friable for burrow and nest construction. Creosote bush, white bursage, saltbush, Joshua tree, Mojave yucca, and cacti are often present in the habitat along with other shrubs, grasses, and wildflowers. The desert tortoise is entirely herbivorous and forages on a variety of plants, including cactus species and annual vegetation. Desert tortoise populations are declining due to habitat destruction/loss, predation, illegal collecting, grazing, and OHV use (Berry 1997).

Low quality habitat (disturbed with sparse vegetation and low annual growth), creosote bush-white bursage series and mixed saltbush series, is present for this species along the Project ROW within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4. No recent historical records report that desert tortoises have occurred within the vicinity of the Project ROW. No desert tortoises were observed within the desert tortoise survey area. Surveys resulted in potential desert tortoise burrows; however, only one burrow kept its half moon shape inside and the remaining burrows did not keep their half moon shape inside or did not have a half moon shape at all. In addition, no other desert tortoise sign, including scat or tracks, were observed during the survey effort, therefore it is most likely that the burrows are being utilized by small mammals. Due to the presence of higher quality habitat on either side of the Project Route, there is a potential for desert tortoise to be active within the Project ROW. Activity includes potential burrows, foraging, and passing through within Segments 1 and 2 as well as passing through within Segments 3 and 4.

Desert Kit Fox

The desert kit fox is a state protected species. This species occurs primarily in deserts and grasslands throughout western North America. Specifically this species is known to occur from southern California to western Colorado and down into parts of western Texas. The San Joaquin kit fox (*Vulpes macrotis mutica*), a subspecies of the kit fox, is a federally listed endangered and a state listed threatened species which is known to occur only in the Central Valley of California near Bakersfield. This species is found primarily in arid areas consisting of desert scrub, chaparral, or grasslands from 1,300 to 6,200 feet in elevation and appears to prefer areas with loose soil for dens (List and Cypher 2012). Desert kit foxes feed on small mammals and insects, foraging mostly during the night or late evening/early morning. This species breeds from December to January; and pups are born from February to mid-March, with litter sizes ranging from one to seven pups. Desert kit foxes usually use their dens year-round, and it is thought they often will have multiple dens throughout their home range (List and Cypher 2012). Primary threats to this species include poisoning from agricultural fields, predation by coyotes (*Canis latrans*), and mortality from vehicles.

Habitat, including creosote bush-white bursage series and mixed saltbush series,, is present for this species along the Project ROW within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4. Fox dens were observed in the Project buffer during the biological reconnaissance survey and desert tortoise survey; therefore, desert kit fox have a potential to be active within or adjacent to the Project. Activity includes potential burrows, foraging, and passing through within Segments 1 and 2 as well as passing through within Segments 3 and 4.

Mojave Fringe-Toed Lizard

The Mojave fringe-toed lizard is a SSC and BLM sensitive species. Its range is restricted to the Mojave Desert, occurring from southern Death Valley south to the Colorado River near Blyth, California, and extreme western Arizona (Calherps 2012). This species requires areas of creosote scrub containing both large and small dunes consisting of fine, wind-blown sand. It will create burrows in areas of loose sand usually found in margins of drainages, hillsides of dunes, or hummocks at the base of creosote bushes (Hollingsworth and Beaman 2012). It feeds on small invertebrates, seeds, and occasionally some flower blossoms. Breeding occurs from April to July. Eggs are typically laid in hummocks at the base of creosote bushes or in sandy areas in the hillsides of dunes, and hatchlings emerge during September. Primary threats to this species include mortality from off-road vehicles and habitat loss due to the placement of wind exclusion fences and development.

Mojave fringe-toed lizard habitat was not present within the Project ROW or immediate buffer and Mojave fringe-toed lizards were not observed during any survey efforts for the Project; therefore, this species is considered absent from all Project segments.

Nelson's Bighorn Sheep

The Nelson's bighorn sheep is a state protected species and a BLM sensitive species. This species occurs throughout the deserts of eastern California, Nevada, northwestern Arizona, and southern Utah (Wehausen 2012). A subspecies of the Nelson's bighorn sheep, the peninsular bighorn sheep (*Ovis canadensis nelsoni* DPS) is federally listed endangered, state listed threatened, a California fully protected species, and a BLM sensitive species. This subspecies of bighorn sheep is known to occur only in Riverside, San Diego, and Imperial counties. The Nelson's bighorn sheep is found primarily on or near

steep and rocky mountainous terrain above the desert floor but is also found in washes and canyons from 400 to 4,000 feet in elevation (Jameson and Peters 1988). Threats to Nelson's bighorn sheep include diseases such as pneumonia spread by domestic sheep and cattle, predation by mountain lions (*Felis concolor*), insufficient lamb recruitment as a result of predation, habitat fragmentation, and decreasing access to surface water due to human activity (Wehausen 2012).

Habitat for Nelson's bighorn sheep occurs near Segment 4 of the Project within the Avawatz Mountains, located west of the northern portion of the Project. Nelson's bighorn sheep were not observed during surveys; however, occurrences exist for the species in the Avawatz Mountains and were recorded in 2002 (Fort Irwin 2005); therefore, this species has a moderate potential to occur near the Project but a low potential on the Project during proposed activities. Impacts to this species would be indirect and due to the presence of construction vehicle and equipment for short periods of time (approximately 5 to 7 work days and not all consecutive). Noise levels and vibrations due to proposed activities are not anticipated to have an impact on this species since this portion of the Project is being located within a truck haul route.

Swainson's Hawk

The Swainson's hawk (nesting) is state listed as a threatened species. This species breeds from southwest Canada through the western United States into northern Mexico, with isolated breeding populations also observed in northern Illinois and the Sacramento and San Joaquin valleys of California. This species winters to South America. The Swainson's hawk forages in open stands of grass-dominated vegetation, sparse shrublands, and small, open woodlands. It typically nests in scattered trees within these grassland, shrubland, or agricultural landscapes. The Swainson's hawk feeds largely on insects, and thus is affected by pesticide use, particularly dichlorodiphenyltrichloroethane (DDT) and organophosphate pesticides currently used in South America (England et al. 1997).

One Swainson's hawk was observed soaring over the Project area during the burrowing owl and desert tortoise survey effort. Foraging habitat is present for this species along the Route. No Swainson's or other large raptor nests were observed during surveys.

Townsend's Big-Eared Bat

The Townsend's big-eared bat is a state candidate for listing, a SSC, and a BLM sensitive species. This species is found throughout California in alpine and subalpine habitats, preferably mesic habitats. Roosts occur in caves, buildings, tunnels, mines, and other human-made structures. This species hibernates singly or in groups from October to April (CDFW 2000). Females form maternity colonies, but males are solitary in the spring and summer (CDFW 2000). Mating occurs from November to February, and the females store the sperm during hibernation months until ovulation takes place in the spring (CDFW 2000). Births of one young to each litter take place in May and June; the young are independent after six weeks. Moths are its main food source, but beetles and insects are consumed as well (CDFW 2000). This species has high site fidelity; but it is extremely sensitive to disturbance of roosting sites, with one visit to a roosting site having the potential to cause abandonment (CDFW 2000). This species is also sensitive to wing injuries due to banding (CDFW 2000).

Townsend's big-eared bat was not observed or detected during biological surveys. In addition, roosting habitat for this species was not identified within the Project ROW. Foraging habitat is present for this

species along the Route. This species has a moderate potential to occur foraging within the Project ROW, but is not expected to be found roosting within the Project ROW.

3.3.3 Sensitive Species Focused Surveys

Focused Plant Surveys

After the literature review of plant species occurrences and assessment of the various habitat types within the Project ROW, it was determined that seven sensitive plant species have the potential to occur within the Project ROW. Construction activities have the potential to impact habitat, including the topsoil and seed bank, within Segment 1; therefore, a focused plant survey was required and conducted within suitable habitat in this segment for all plant species with a potential to occur within Segment 1. Construction activities within Segments 2, 3, and 4 would either not result in uprooting vegetation and the topsoil and seed bank would remain intact, will be completely contained within existing maintained dirt roads and shoulders along SR-127, or will be within the dirt road where the Project ROW overlaps Silver Lake Road; therefore, no focused plant surveys were required or conducted within these segments.

The focused plant survey was conducted within Segment 1 of the Project ROW, the potential staging area for the Project, as well as a 20- to 30-foot-wide buffer on either side of the ROW within Segment 1 and around the potential staging area. During the protocol-level focused survey conducted on April 1, 2014, no sensitive plant species were observed within the Project ROW or within the buffer area.

Focused Wildlife Surveys

Burrowing Owl

One burrowing owl pellet was observed on April 16, 2014, within the 600-meter desert tortoise perimeter transect. The pellet was observed in a depression of an old fox den. No additional burrowing owl sign was observed. Table 5 provides the location and sign found. The locations of observed burrowing owl sign were recorded using GPS units and are shown on Figure 5.

Table 5: Burrowing Owl Sign Observed During Focused Burrow Surveys

Sign #	Sign Type	GPS Coordinates*	
		Easting	Northing
1	Burrowing owl pellet at old fox den.	584021	3908990
*UTM NAD 83			

Desert Tortoise

Survey Results

No desert tortoises or desert tortoise scat were observed, but one desert tortoise burrow and potential desert tortoise burrows were detected during the desert tortoise presence/absence survey effort. A Class 2 desert tortoise burrow was observed on the 200-meter desert tortoise perimeter transect and 9 potential desert tortoise burrows (Classes 4 and 5) were observed either within the ROW, near the ROW, or on a 200-, 400-, or 600-meter transect (Appendix E).

Desert tortoise burrow classification is broken down into five categories, according to USFWS desert tortoise survey methodology and sign documentation protocol (USFWS 1992). An active burrow/pallet with recent desert tortoise sign, such as scat, is categorized as Class 1. A Class 2 burrow/pallet is considered to be a definite desert tortoise burrow/pallet if it appears in good condition but has no evidence of recent use. Class 3 and 4 burrow/pallets are fairly deteriorated, but a Class 3 is still determined to belong to a desert tortoise, while a Class 4 is questionable. A Class 5 burrow is in somewhat good condition and could possibly be a desert tortoise burrow. Desert tortoises utilize several different types of shelter sites, depending upon season and activity. As desert tortoise will often utilize small mammal dens; it is not uncommon to classify shelter sites as potential desert tortoise burrows when in fact they initially belong to other wildlife in the area, such as kit fox and/or black-tailed jackrabbit.

Table 6 shows the breakdown of the number of burrows into separate class categories. The locations of observed desert tortoise sign were recorded using GPS units and are included in Figure 6.

Table 6: Desert Tortoise Sign Observed During Presence/Absence Surveys

Class Category	Burrow	Scat
Class 1	0	0
Class 2	1	0
Class 3	0	0
Class 4	5	0
Class 5	4	0
Total	10	0

Impacts to Desert Tortoise and Desert Tortoise Habitat

Proposed impacts to desert tortoise habitat (Segment 1 only) are presented below in Table 7.

Table 7: Proposed Acres of Impacts to Desert Tortoise Habitat

Vegetation Community	Segment 2 Minimal Use Areas* (acres)	Proposed Disturbance (acres)	Total Impacts (acres)
Creosote Bush-White Bursage Scrub Series	6.92	0.33	7.25
Mixed Saltbush Series	1.75	0.10	1.85
Total Impacts	8.66	0.43	9.09

Notes: Numbers are rounded.

**Minimal use areas within Segment 1 will only be used in emergency situations so are not considered impacts to habitat and therefore were not included in these acreage totals.

*Minimal use areas within Segment 2 will be utilized for the entire length of the Segment and because uprooting has a potential to occur, these areas are considered impacts to habitat and were included in the acreage totals.

The Project is not within USFWS-designated critical habitat for the desert tortoise; therefore, no impacts will occur to desert tortoise critical habitat as a result of this Project.

SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS

4.1 RIPARIAN/RIVERINE AND WETLAND HABITATS

Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. Waters of the United States include navigable waterways and wetlands adjacent to navigable waterways, nonnavigable waterways, and wetlands adjacent to nonnavigable waters that are contiguous with navigable waterways.

The State of California regulates discharge of dredged and/or fill material into waters of the State pursuant to Section 401 of the Clean Water Act. The local RWQCBs assert jurisdiction to all those areas defined as jurisdictional under Section 404 of the Clean Water Act, plus isolated waters. As a state agency, RWQCB regulates all waters of the State, including isolated wetlands as defined under the California Porter-Cologne Water Quality Control Act (Porter Cologne; California Water Code, Division 7, §13000 et seq.).

Jurisdictional authority of CDFW over drainages and streams is established under Section 1600 of the Fish and Game Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The Fish and Game Code stipulates that it is unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake without notifying CDFW, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement.

In addition, the Project is within the edge of Soda Lake for a short portion of the Route. A jurisdictional delineation of waters was conducted along the entire Project Route. Details about survey methodology and the results may be reviewed in the Jurisdictional Delineation Report for the AT&T Highway 127 Project, San Bernardino County, California (Chambers Group 2014).

4.2 SENSITIVE SPECIES

4.2.1 Sensitive Plants

Of the seven sensitive plant species, five species have a potential to occur in the Project ROW. According to the 2009 supplement to the BLM Manual Handbook H-6840-1, "Survey Protocols Required for NEPA/ESA Compliance for BLM Special Status Plant Species," it is BLM policy to conduct inventories to determine the occurrence and status of all special status plant species on lands managed by BLM or affected by BLM actions. BLM defines special status plants to include:

"...plant taxa that are Federally listed as threatened and endangered, proposed for Federal listing, candidates for Federal listing, State listed as rare, threatened, or endangered, or BLM sensitive species. All plant species that are currently on List 1B of the California Native Plant Society's Inventory of Rare and Endangered Plants of California... are BLM sensitive species, along with others that have been designated by the California State Director. BLM is party to a Memorandum of Understanding with the California Department of Fish and Wildlife to collect information for inclusion in the California Natural Diversity Data Base. Therefore, in addition to inventorying for plants formally recognized as special status species by BLM, contractors must also inventory

for all plant, lichen, and fungi species recognized as ‘special’ by the California Natural Diversity Data Base...”(BLM 2009).

Species to be avoided and transplanted would be identified ahead of construction. Implementation of the agency approved Restoration Plan, which details the salvaging and transplanting methodology and future mitigation practices of these species, would minimize potential impacts to these species.

A protocol-level focused plant survey was conducted in the spring of 2014. The survey area included the Project ROW within Segment 1, the potential staging area for the Project, as well as a 20- to 30-foot-wide buffer on either side of the ROW and around the potential staging area.

No sensitive plant species were observed during the focused plant survey. Rains that occurred in March 2014 may not have been enough for all plant species, including sensitive plant species, to germinate. Avoidance and minimization measures are proposed for sensitive plant species that may be present at a later date during construction activities and are listed below in Section 5.0 – Proposed Avoidance and Minimization Measures. Biological monitors will be present during all construction activities and will search for sensitive plant species within suitable habitat prior to ground disturbance. Depending on the timing of construction, plant species may not be detectable directly prior to construction; therefore, impacts to vegetation will be minimized to the greatest extent feasible. Where impacts to native vegetation will occur, the seed bank and topsoil will be left intact. These measures will allow for seeds of sensitive plants to remain in place, if present, and therefore germinate in the future.

4.2.2 Sensitive Wildlife

Seven wildlife species are considered present or have a potential to occur in the Project area and required additional survey efforts and/or require avoidance and minimization measures during construction. These eight species and the recommended efforts are summarized below.

The American badger is a SSC. Suitable habitat is present on the Project within and adjacent to Segment 1 and adjacent to Segments 2 through 4 for American badger. American badger were not observed during Project surveys; however, American badger sign (potential dens) were observed; therefore, a potential exists for American badger activity to occur within the ROW. Proposed avoidance and minimization measures for this species during the construction phase are provided in Section 5.

The burrowing owl is a SSC. Since suitable habitat for the burrowing owl occurs on the Project within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4, a focused burrowing owl/burrow survey was conducted. Chambers Group conducted the survey in April 2014. No owls were observed within the Wildlife Survey Area; however, burrowing owl sign, including one pellet, was observed on the 600-meter desert tortoise perimeter transect; therefore, this species has a potential to occur on the Project. Proposed avoidance and minimization measures for this species during the construction phase are provided in Section 5.

The desert tortoise is federally and state listed as a threatened species. Desert tortoise habitat occurs on the Project within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and, 4; therefore, according to USFWS (2009), protocol presence/absence surveys are required. Chambers Group conducted desert tortoise presence/absence surveys in April 2014. No tortoises were observed within the Wildlife Survey Area/Action Area; however, one desert tortoise burrow was observed on the 200-meter desert tortoise perimeter transect and 9 potential desert tortoise burrows were observed either

within the ROW, near the ROW, or on a 200-, 400-, or 600-meter transect; therefore, desert tortoise is considered present on the Project. Direct impacts on desert tortoises that could occur due to construction activities include loss of foraging habitat; destruction of burrows or shelter sites from trenching activities; and mortality or injury from vehicles, construction equipment, or open trenches. Indirect impacts that could occur as a result of construction activities could include increased predation from ravens due to increased human activities or a decrease in activity level or reduced foraging due to stress from increased sound and vibrations from construction equipment and activity. Proposed avoidance and minimization measures for this species during the construction phase are provided in Section 5.

The desert kit fox is a state protected species. Title 14 CCR § 460, Division 1, Subdivision 2, Chapter 5 states, “Fisher, marten, river otter, desert kit fox and red fox may not be taken at any time.” Fish and Game Code Division 0.5, Chapter 1, Section 86 states “Take” means “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture or kill.” Habitat is present on the Project within and adjacent to Segments 1 and 2 and adjacent to Segments 3 and 4, for desert kit fox. Desert kit fox were not observed during Project surveys; however, kit fox sign (dens and scat) were observed; therefore, a potential exists for desert kit fox activity to occur within the ROW. Proposed avoidance and minimization measures for this species during the construction phase are provided in Section 5.

The Nelson’s bighorn sheep is a state protected species and a BLM sensitive species. Habitat for Nelson’s bighorn sheep occurs near Segment 4 of the Project within the Avawatz Mountains, located west of the northern portion of the Project. Nelson’s bighorn sheep were not observed during surveys and this species has a low potential to occur within 5 miles of the Project. Migration is not expected to occur during construction activities and therefore impacts will not occur to this species as a result of the Project activities. Because the Project will not impact this species, avoidance and minimizations are not required.

The Swainson’s hawk (nesting) is state listed as a threatened species. One Swainson’s hawk was observed soaring over the Project area. Foraging habitat is present for this species along the Route. No Swainson’s or other large raptor nests were observed during surveys.

The Townsend's big-eared bat is a state candidate for listing, a SSC, and a BLM sensitive species. Townsend’s big-eared bat was not observed or detected during biological surveys. In addition, roosting habitat for this species was not identified within the Project ROW. Foraging habitat is present for this species along the Route. This species has a moderate potential to occur foraging within the Project ROW, but is not expected to be found roosting within the Project ROW.

SECTION 5.0 – AVOIDANCE AND MINIMIZATION MEASURES

The following avoidance and minimization measures will be implemented prior to, during, and following construction of the Project.

5.1 SENSITIVE PLANTS

Sensitive plant species, as described below, include federal and state listed threatened and endangered species and CRPR List 1 and 2 species with a potential to occur on the Project. A focused plant survey for sensitive plant species was performed in the spring of 2014 in areas of suitable habitat; however, no sensitive plant species were observed.

- A qualified biologist will provide to all construction personnel an environmental awareness training (EAT) and information pamphlet that will include a description of sensitive resources within the Project area and describe the importance of staying within the Project boundaries.
- A qualified biological monitor will conduct a preconstruction survey for sensitive plant species with a potential to occur on the Project within minimal use and disturbance areas along Segments 1 and 2. The survey will be conducted ahead of construction within the Project ROW in suitable habitat. Depending on the timing of construction, plant species may not be detectable directly prior to construction; therefore, impacts to vegetation will be avoided to the greatest extent feasible. Where impacts to native vegetation may not be avoided, the seed bank and topsoil will be left intact, allowing for seeds of sensitive plants to remain in place, if present, and therefore germinate in the future. The seed bank and top soil will be left intact utilizing the following methods.
 - Within minimal use areas where equipment or vehicle tracks may make a single or few passes within vegetation, no grading will occur. Any tracks or ruts created by equipment passes will be raked or swept to carefully smooth out the topsoil.
- Within proposed disturbance areas where spoils from trenching need to be placed within vegetation, vegetation would be covered with plastic sheeting. Equipment buckets would then carefully backfill the soil into the trench. Plastic sheeting would only remain in place for one day. If plastic sheeting may be in place for more than one day, then a light colored plastic will need to be utilized to prevent vegetation from over heating. If sensitive plant species are observed within the Project ROW during the surveys, plants will be flagged and avoided to the greatest extent possible.
- If sensitive plant species are observed within the ROW and impacts cannot be avoided, one of the following measures will be implemented at the discretion of the biologist:
 - Healthy sensitive plant species suited for salvage and transplanting and young perennial woody shrubs, will be salvaged and transplanted into suitable habitat outside the ROW. Salvaged plants will be kept in an onsite nursery under shade cloth and watered as needed based on soil moisture levels until translocation can occur.

- Seeds from sensitive annual plant species or other individuals that cannot be salvaged will be collected and dispersed into the ROW after construction and when no further ground disturbance is expected.
 - If transplanting and seed collection are not possible, the contractor will bore under sensitive plant species populations within the ROW to avoid impacts, to the greatest extent possible.
 - If transplanting and seed collection are not possible, the contractor will salvage the top 4 inches of soil (topsoil), as described in the Project approved Vegetation Restoration Plan, from vegetated areas within the disturbance area. The topsoil will be replaced once construction is complete in that area.
- A qualified biological monitor will be present on site during all construction activities and will monitor the avoidance areas for potential impacts to sensitive species.

5.2 VEGETATION COMMUNITIES

Impacts to vegetation communities were avoided to the greatest extent possible during the planning phase of the Project. The potential Project staging area was placed in an existing disturbed area to minimize impacts to undisturbed habitat. Impacts that will occur to habitat will be minimal, and habitat will be reseeded following construction activities. The measures below will be implemented prior to, during, and after construction.

- The Project will utilize existing access roads to minimize impacts to undisturbed habitat.
- A qualified biologist will provide to all construction personnel an environmental awareness training (EAT) and information pamphlet that will include a description on sensitive resources within the Project area and describe the importance of staying within the Project boundaries.
- Project boundaries will be clearly marked to prevent construction activities from disturbing habitat outside the Project ROW.
- A biological monitor will be on site during all Project activities. The biological monitor will oversee and regularly check that boundaries are clearly marked. The monitor will remind contractors to stay within Project boundaries so that vegetation outside the Project boundary is not impacted.
- Soils and debris within all utilized minimal use areas shall be re-contoured with the use of hand tools, such as a rake, in order to smooth out the topsoil and seed bank. Compacted soils will be slightly loosened while overly loosened soils will be slightly compacted and watered down to create a crust. Rocks and boulders as well as plant debris from crushed vegetation located within the minimal use areas will be replaced or left in place, to help prevent the area from being utilized by the public.
- Impacts to habitat within the Project ROW will be rehabilitated according to the Project approved Vegetation Restoration Plan (Appendix A).

5.3 BURROWING OWLS, RAPTORS, AND NESTING BIRDS

Burrowing owls were not observed during Project surveys; however, burrowing owl sign (pellet) was observed; therefore, a potential exists for future burrowing activity to occur within the Project area. Raptors and nesting birds are protected by the Migratory Bird Treaty Act (MBTA). Due to the potential for burrowing owls to occur on or adjacent to the Project, and due to the Project's potential to impact raptors and nesting birds, the following minimization measures may be required prior to and during construction activities:

- A biologist will provide all maintenance personnel with an orientation and information pamphlet that includes: distribution of the burrowing owl, behavior and ecology of the burrowing owl, sensitivities to human activities, legal protection, penalties of violation of state and federal laws, reporting requirements, and Project protective mitigation measures. The training will also include details of the Migratory Bird Treaty Act and legal protection of nesting birds.
- A preconstruction burrowing owl survey will be required within 30 days prior to construction on the Project Route (CDFW 2012).
 - In the event that a burrowing owl is found present within or near the Project ROW during the burrowing owl breeding season (February 1 to August 31), active burrows will be flagged in all directions and no construction activity will take place within the flagged area until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project. Buffers will be flagged according to the latest burrowing owl mitigation guidelines (CDFW 2012) and may be adjusted at the discretion of the biologist, depending on the nesting behaviors observed.
 - In the event that a burrowing owl is found present within the Project near the Project ROW during the burrowing owl non-breeding season (September 1 to January 31), active burrows will be flagged in all directions and no construction activity will take place within the flagged area to the greatest extent possible. Buffers will be flagged according to the latest burrowing owl mitigation guidelines (CDFW 2012) and may be adjusted at the discretion of the biologist, depending on the behaviors observed.
 - In the event that a burrowing owl is found present within or near the Project ROW during the burrowing owl non-breeding season (September 1 to January 31) and if avoidance is not possible, a Burrowing Owl Mitigation and Monitoring Plan shall be submitted to CDFW for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The Plan shall also describe proposed offsite areas to preserve to compensate for impacts to burrowing owls/occupied burrows on the Project. As compensation for the direct loss of burrowing owl nesting and foraging habitat, the Applicant shall mitigate by acquiring and permanently protecting 6.5 acres calculated on a 10- meter foraging radius of known burrowing owl nesting and foraging habitat for every pair or unpaired

burrowing owl impacted by the Project (those owls that required relocation because their burrows were directly impacted). The Applicant shall set-up a non-wasting endowment account for the long-term management of the preservation site for burrowing owls. The site shall be managed for the benefit of burrowing owls. The preservation site, site management, and endowment shall be approved by CDFW.

- If construction activities take place during the nesting bird season (March 15 to September 15), nesting bird surveys for raptors and all other birds covered under the MBTA will be conducted within a 500-foot minimum avoidance buffer for raptors and a 300-foot minimum buffer for passerine birds within three days prior to the start of work.
 - The breeding habitat/nest site shall be fenced and/or flagged in all directions. The nest site area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project.
- A biological monitor will be present when work activities occur near a burrowing owl winter buffer or any active nest buffer in order to monitor burrowing owl and/or nest behaviors that may be impacted by construction activities. Buffers may be enlarged or decreased in size, at the discretion of the biologist, depending on the nesting behaviors observed.

5.4 DESERT TORTOISE

Due to the presence of desert tortoise sign within the Project buffer, avoidance and minimization measures, including monitoring, will be required for the Project during all construction activities. AT&T is advised to implement standard desert tortoise avoidance procedures during construction to minimize direct and indirect impacts to the species. The names of proposed authorized and qualified biologists will be submitted by AT&T's environmental consultant (Chambers Group) to BLM, CDFW, and USFWS at least 30 days prior to the onset of construction activities. Project biologists, as authorized by BLM, CDFW, and USFWS, will oversee all aspects of construction monitoring that pertain to biological resources protection and will document compliance of avoidance and minimization measures. BLM will consult with USFWS and a CDFW 2081 will be required prior to initiation of construction. The final mitigation and monitoring requirements will be provided in those two documents. The following items include general avoidance and minimization measures that may be required of the Project biologists in order to minimize impacts to desert tortoise prior to and during construction activities for the Project:

- A short translocation plan for desert tortoise will be provided to CDFW in case a desert tortoise needs to be handled.
- The biologists will provide all maintenance personnel with an orientation and information pamphlet that includes: distribution of the desert tortoise, behavior and ecology of the tortoise, sensitivities to human activities, legal protection, penalties of violation of state and federal laws, reporting requirements, and Project protective avoidance and minimization measures.
- A desert tortoise clearance survey will be conducted along the Project Route and buffer within a maximum of 48 hours prior to ground-disturbing work in areas of high desert tortoise density and directly ahead of construction along the entire Project Route.

- All desert tortoise burrows/pallets within the proposed Project ROW and buffer are to be marked so that the equipment operators can identify and avoid such burrows. These locations will be flagged prior to initiation of the proposed Project.
- Heavy equipment operators are to be accompanied by a qualified biologist when working in desert tortoise habitat during construction activities. The biological monitor will walk in front of the equipment during its operation and has the responsibility and authority to halt all Project activity should danger to a desert tortoise arise. Work should proceed only after hazards to the desert tortoise are removed, the desert tortoise is no longer at risk, or the desert tortoise has been moved from harm's way by an authorized biologist. A desert tortoise could be found above ground during both its active and inactive seasons; therefore, a construction monitor will be present to ensure compliance with construction Best Management Practices (BMPs) and to be present in the event a tortoise is found within the Project area.
- The authorized biologist will remove any desert tortoise that is threatened to a nearby location in accordance with protocol (USFWS 2009). Monthly reports will be submitted to CDFW. AT&T will submit a post-Project report to BLM, CDFW, and USFWS identifying all activities affecting the desert tortoise.
- Encounters with desert tortoise are to be reported to an authorized or qualified biologist. A record will be maintained of all desert tortoises handled by the biologists. Information collected on live tortoises will include:
 - The location(s) (narrative and maps) and dates of observations
 - General condition and health, including injuries and state of healing and whether animals voided their bladders
 - Location moved to and from, if handled
 - Diagnostic markings (identification numbers or marked lateral scutes)
 - Photographs of each desert tortoise
- If an injury or death of a listed species should occur due to Project activities, the biologist shall notify BLM immediately and no later than 24 hours following the incident, including:
 - The date and time of the finding or incident (if known)
 - Location of the carcass or injured animal
 - A photograph, cause of death, if known, and any other pertinent information
- Upon locating a desert tortoise dead or injured as a result of Project activities, the biologist shall notify BLM, CDFW, and USFWS in writing within five days of the finding. If a tortoise is killed by Project activities, it shall be salvaged according to *Salvaging Injured, Recently Dead, Ill, And Dying Wild, Free-Roaming Desert Tortoise (Gopherus agassizii)* prepared by Kristin Berry, June 2001. The permittee shall pay to have these tortoises necropsied. The information provided will include:

- The date and time of the finding or incident (if known)
 - Location of the carcass or injured animal
 - General circumstances under which it was found
 - A photograph, cause of death, if known, and any other pertinent information
- Listed animals injured by Project activities shall be transported by the authorized biologist to the nearest qualified veterinarian for treatment. Costs incurred for treatment will be paid for by AT&T. If the animal recovers, CDFW and USFWS will be contacted for final disposition of the animal.

The following items include general minimization measures that may be required of all Project contractors in order to minimize impacts to desert tortoise prior to and during construction activities for the Project:

- Pets and firearms are prohibited.
- All trash should be regularly removed to reduce the attractiveness of the areas to ravens and other desert tortoise predators.
- BMPs are to be incorporated to prevent the soil from becoming airborne or being washed away as sediment.
- Any trenches temporarily created are to be sloped at the end of each workday to allow wildlife to escape. All trenches are to be inspected for desert tortoise occupancy before work begins the following day.
- Staging areas are prohibited in sensitive biological areas. Staging areas will be reviewed and approved by the Project biologist. If necessary, changes in location will be incorporated into the construction contract. Equipment fueling will not occur adjacent to or in drainages.
- Off-road travel and staging areas outside the approved staging areas or construction zones are prohibited. Within the authorized surface use areas, areas devoid of vegetation, disturbances such as temporary staging areas or parking areas for equipment, are to be confined to the smallest practical location, considering topography, placement of facilities, location of burrows, and public health and safety. Such areas will be marked to minimize surface disturbance associated with off road travel or unauthorized use. Special habitat features, such as burrows (a minimum of 50 feet away), identified by the authorized biologist are to be avoided.
- Workers are to inspect for desert tortoises resting in the shade under vehicles and equipment prior to moving. If a desert tortoise is present but not under the vehicle, the worker(s) should carefully move the vehicle only when necessary and authorized by the onsite biologist. If a tortoise is under a vehicle, the vehicle will not be moved until the tortoise has left the area or the authorized biologist has carefully moved the tortoise using previously approved methods.

5.5 DESERT KIT FOX AND AMERICAN BADGER

Desert kit fox and American badger were not observed during Project surveys; however, large mammal dens were observed in the survey area; therefore, a potential exists for future kit fox and American badger activity to occur within the Project area. Due to the potential for kit fox and American badger to occur on or adjacent to the site, and due to the Project's potential to impact kit fox and American badger, the following minimization measures may be required prior to and during construction activities:

- A qualified biologist will provide to all construction personnel an environmental awareness training (EAT) and information pamphlet that will include a description of sensitive resources within the Project area and describe the importance of staying within the Project boundaries.
- A qualified biological monitor will be present during all construction activities for the Project.
- Desert kit fox and American badger dens will be inspected as part of the desert tortoise clearance survey, which will be conducted within the Project ROW and buffer within a maximum of 48 hours prior to ground-disturbing work and/or directly ahead of construction along the entire Project Route.
 - Desert kit fox and American badger dens located outside the Project ROW and within the survey buffer will be flagged for avoidance.
 - Unoccupied dens located in the Project ROW that cannot be avoided will be excavated and backfilled by hand.
 - Dens that appear to be active will be further investigated for activity using flour, sticks and/or motion cameras.
 - During the nonbreeding season (July 2 to January 15) one-way doors will be utilized to prevent activity, and dens will be hand-excavated once unoccupied.
 - A 500-foot no-disturbance buffer shall be maintained around all active dens during the breeding season (January 16 to July 1). The active den will be avoided until it is determined by a qualified biologist that the occupied den does not contain pups or until after the breeding season. Active dens and dens within the buffer of the clearance survey shall be marked so that the equipment operators can identify and avoid such dens. These locations shall be flagged prior to initiation of the maintenance/replacement activities in the area.
- A desert kit fox and American badger encountered during construction activities will be allowed to move out on its own. Construction will cease until the fox or badger is a safe distance away, as determined by the onsite biological monitor.

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APPENDIX A – VEGETATION RESTORATION PLAN



DRAFT

**VEGETATION RESTORATION PLAN
FOR THE AT&T STATE ROUTE 127 FIBER-
OPTIC CABLE INSTALLATION PROJECT
SAN BERNARDINO COUNTY, CALIFORNIA**

Prepared for:

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September 2014

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SECTION 1.0 – INTRODUCTION

AT&T Corporation (AT&T) is proposing a fiber-optic cable (FOC) installation project (Project or Proposed Action) from the unincorporated community of Baker to the United States (U.S.) Army National Training Center (NTC) at Fort Irwin in California. The Project would install approximately 12 miles of FOC within previously disturbed areas (Route). The purpose of this Vegetation Restoration Plan (Plan) is to reduce the impacts to native vegetation communities as a result of the Project. This Plan includes the following components: an Invasive Weed Management Plan; a Plant Salvage, Stockpiling, and Transplanting Plan; and a Topsoil Salvage and Reseeding Plan. The Project is located within previously disturbed areas (e.g., road shoulders, around the developed community of Baker, and within highly disturbed dirt roads adjacent to human disturbance areas). Due to the existing disturbed nature of the existing environment, post construction monitoring is proposed for 5 years.

1.1 GOALS AND OBJECTIVES

This document provides a plan to address the impacts of construction to native vegetation communities and to address temporary loss of habitat and the increased risk of establishing nonnative invasive plant species in the disturbance areas. The primary purpose of this Plan is to propose a strategy to restore disturbed Project areas to pre-project grade and to revegetate these areas with the purpose of minimizing soil erosion and vulnerability to weed invasion. The measures described in this Plan, in conjunction with other mitigation measures and Best Management Practices (BMPs) included in the Biological Technical Report (BTR), the Biological Assessment (BA), and the joint Environmental Assessment/Initial Study (EA/IS) for the Project, will reduce construction impacts to native plant communities. The Plan goals are as follows:

- Avoid impacts where practical.
- Where impacts are unavoidable, minimize impacts.
- Salvage acacia, cacti, and yucca located within the disturbance area of the Project in order to conserve species diversity in the area.
- Avoid (i.e., preserve), where practical, mature native trees.
- Avoid removing desert trees where practical by adjusting the route or reducing the width of the right-of-way to avoid desert trees.
- Implement early detection protocols, define containment strategies, and put into practice methods of control to minimize the introduction and spread of invasive weeds during Project construction activities.
- Preserve or restore the native seed bank so that native vegetation may grow back to preconstruction conditions.

1.2 PROJECT BACKGROUND

Under the Proposed Action, BLM would approve a right-of-way (ROW) grant to AT&T to facilitate FOC installation activities from the unincorporated community of Baker, California, to Cell Site 9 at the NTC. Project activities consist of installing three new direct buried 1.5-inch-diameter high-density polyethylene (HDPE) ducts and twenty-five 3-foot by 5-foot by 3-foot direct buried cable splice or access vaults spaced approximately 3,000 feet apart. In addition, marker poles and a buried marker ribbon will also be installed. A potential staging area for installation would be located near the Project Route in developed areas.

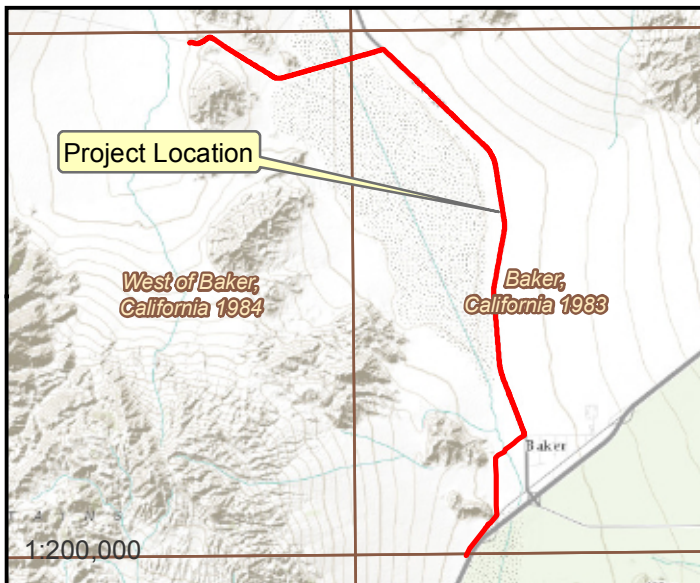
The new FOC is needed to support AT&T's Shoshone Central Office cellular network and the NTC's Combat Training Center – Instrumentation System Range Communications System (CTC-IS RCS).

1.3 PROJECT ROUTE DESCRIPTION

The Project route (Route) follows a path between the intersection of Mill Street and Baker Boulevard and the National Training Center's Cell Tower Site 9 as shown in Figure 1: Project Location. Beginning at the intersection of Mill Street and Baker Boulevard, the Route travels parallel to Mill Road for approximately 1.14 miles. Turning right, the Route parallels Silver Lane for approximately 0.44 mile until it reaches SR-127, north of Baker. The Project Route then crosses to the west side of SR-127 and runs north along SR-127 for approximately 7.20 miles. The Route then turns west onto Silver Lake Road, which crosses Silver (dry) Lake and continues for approximately 3.47 miles to Cell Tower Site 9.

For the purpose of organizing the data, the Project Route has been divided into the following four segments:

- Segment 1, approximately 1.58 miles, occurs from the intersection of Mill Street and Baker Boulevard northeast around the edge of Baker to SR-127.
- Segment 2 occurs from SR-127, north for approximately 7.20 miles to Silver Lake Road.
- Segment 3, approximately 2.87 miles, occurs from Silver Lake Road west to the Fort Irwin border.
- Segment 4 occurs from the border of Fort Irwin to Cell Tower Site 9 for approximately 0.60 mile.



Legend

Route Alignment

- Segment #1
- Segment #2
- Segment #3
- Segment #4

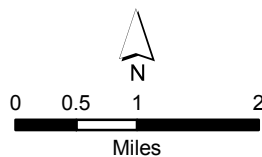


Figure 1
AT&T Highway 127 Project
Project Location and Vicinity Map

1.4 AREAS OF PROPOSED DISTURBANCE

The pre-disturbed Project ROW will be 20 feet wide, allowing 10 feet for “minimal use” and 10 feet for proposed “disturbance area”.

Areas used for minimal use during installation activities would not be graded or cleared of vegetation. Vegetation is expected to be crushed by vehicles or equipment. Although the vehicles and equipment that utilize these areas would result in soil compaction, the root systems, topsoil, and seed bank would be left intact to the greatest extent feasible in order to minimize impacts to the native vegetation, habitat to plants and wildlife.

Proposed disturbance areas are areas that may be graded and cleared of vegetation for installation of the new cable. Habitat areas that are graded would be replanted with salvaged plants and re-seeded according to this Agency approved Plan.

Areas where the Project ROW is on portions of existing county or utility corridor dirt roads would not result in impacts since these areas are already disturbed. Existing dirt roads will be backfilled and re-contoured/graded to match the preconstruction conditions of that existing road.

Segment 1

Within Segment 1 (approximately 1.58 miles), an existing maintained dirt road with an average width of 12.5 feet is within the Project ROW. Of the 20 foot wide ROW, the remaining 7.5 feet of occurs within vegetation. Of the 7.5 feet, an average width of 2.5 feet would be utilized as proposed disturbed areas and an average width of 5 feet would be utilized as potential minimal use areas. Installation of the duct would occur within the existing maintained dirt road. The trench and spoils will be contained within the dirt road to the greatest extent feasible but it is likely spoils will be cast out into vegetated areas.

In areas where habitat is within the proposed disturbance areas and if impacts may or will occur in those areas due to being located where spoils from the trench will be piled, vegetation will be covered with silt fencing (or other plastic covering) prior to trenching activities. The silt fencing/covering is not expected to be used for more than one day at a time because only the amount of trenching and FOC placement that can be accomplished in one day will be planned for that day. If a covering is expected to be used for more than one day at a time during the summer, a lighter color covering will be used to prevent vegetation from getting overheated. Covering the vegetation will minimize the uprooting of vegetation due to backfilling activities as a result of dragging the equipment bucket directly over plants. Backfilling activities would instead consist of carefully pushing soils off the plastic covering to avoid uprooting vegetation, to the greatest extent possible, while keeping the topsoil intact.

Potential minimal use areas within Segment 1 would be used only if it is absolutely necessary for construction vehicles and equipment to pass the maintenance/replacement activities. It is currently unknown if disturbance to these areas will be necessary, and it is very likely that these areas would not be used at all. These areas will be avoided to the greatest extent possible but were identified as areas that may potentially be needed for passing only. If passing does need to occur in any of these areas, the area needed for passing will first be identified and surveyed by a qualified biologist for the presence of sensitive species and biotic crust and documented. Photographs of the area will be taken to document the conditions and a GPS point will be recorded for location prior to use. Once surveyed, the biologist will monitor passing activities by vehicles and/or equipment. The number of passes will be kept to a

minimum at this location to minimize potential impacts and likely would be only one pass by one vehicle or piece of equipment.

Segment 2

Within Segment 2 (approximately 7.20 miles), the duct would be installed at the foot of the SR 127 western shoulder and inside the existing dirt berm. Of the 20 foot wide ROW, 10 feet would occur within the existing maintained shoulder of the SR 127. The remaining 10 feet would occur within vegetation just outside the berm, and would be utilized as minimal use areas. Equipment used to create the trench for the duct would straddle the trench and therefore, one side of the equipments tires or tracks will be within the vegetation just outside of the berm.

The minimal use areas within Segment 2 would be crushed not graded; therefore, the root system, topsoil, and seed bank would be left intact. Only the necessary equipment for installation of the FOC would be utilized in the minimal use areas. Prior to utilizing these areas, a biologist will be notified. The biologist will survey for the presence of sensitive species and biotic crust and document the results. Photographs of the area will be taken to document the conditions and a GPS point will be recorded for location prior to use. Once surveyed, the biologist will monitor construction activities. The number of passes will be kept to a minimum within minimal use areas. Once construction is complete, minimal use areas will be raked and re-contoured to to smooth out ruts created by construction equipment and to help prevent the area from being utilized by the public.

Segments 3 and 4

Within Segments 3 and 4, all activities will take place within roadways or disturbed roadway shoulders; therefore, no new ground disturbance will occur and no new ground-disturbing activities will take place within habitat areas.

Approximately 9.59 acres of disturbance may occur within minimal use areas. An area of approximately 0.43 acres of disturbance is anticipated within proposed disturbance areas. The acres of minimal use and proposed disturbance to habitat for each portion of the Route are included in Table 2.

Table 1: Proposed Acres of Disturbance to Habitat

Route Segment	Minimal Use* (acres)	Proposed Disturbance (acres)	Total Disturbance (acres)
Segment 1	0.93	0.43	1.36
Segment 2	8.66	0.00	8.66
Segment 3	0.00	0.00	0.00
Segment 4	0.00	0.00	0.00
Total Disturbance	9.59	0.43	10.02

Note: Acreage totals only include impacts to habitat, not non-vegetated areas.

Areas where the Project is within or will utilize previously disturbed or developed county or utility corridor dirt roads, as well as disturbed or developed areas for staging, will not result in Project impacts since no new disturbance will occur. These existing dirt roads are not included in the acreages listed above. Dirt roads and staging areas will be re-contoured to match preconstruction contours.

SECTION 2.0 – INVASIVE WEED MANAGEMENT PLAN

On February 3, 1999, Executive Order 13112 was signed and calls for the Executive Branch agencies to work to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause (Federal Register 1999).

Invasive weeds include plant species that are not native to the area where they are growing (BLM 2010). Invasive weeds are opportunistic plants that readily colonize disturbed areas and as a result of growing where they did not evolve, the invasive weeds usually do not have natural enemies to limit their reproduction and are therefore able to exclude or out-compete native species and lead to a decrease in overall species diversity in the area. Invasive plant species adversely affect the habitats they invade economically and ecologically. Invasive weeds may also be noxious. Legally, a noxious weed is any plant designated by a Federal, State or county government as injurious to public health, agriculture, recreation, wildlife or property (BLM 2010).

The goal of this Invasive Weed Management Plan (IWMP) is to implement early detection protocols, define containment strategies, and put into practice methods of control to minimize the introduction and spread of invasive weeds during Project construction activities. AT&T acknowledges that construction of the Project may promote the introduction and spread of invasive weeds; therefore, AT&T plans to implement prevention measures during Project construction activities. Measures are meant to prevent introduction and spread, not reduce already present weed populations along the Project. A number of measures are not feasible in areas where weed species are already established and abundant. AT&T agrees to discuss additional weed treatment methods with BLM and California Department of Fish and Wildlife (CDFW) if additional weed treatments are deemed necessary in these areas where weeds are established. This IWMP is applicable to the construction of the proposed AT&T FOC, the associated facilities, and any other disturbances connected with this Project. AT&T and its contractors will be responsible for carrying out the methods described in this IWMP. The IWMD will discuss:

- Target Invasive Weed Species
- Preconstruction and Construction Weed Management
- Postconstruction Invasive Weed Monitoring and Management

2.1 TARGET INVASIVE WEED SPECIES

Most invasive species found present along the Project Route will be targeted and managed under this IWMP, including any noxious weeds that may be present and that are listed in Appendices A and B (USDA 2012 AND CDFA 2014, respectively). However, AT&T, BLM, and other federal, state, and local agencies recognize that species such as brome grasses (*Bromus* spp.) and other grass species (e.g., *Schismus* sp.), because of their widespread distribution, are not considered feasible for general control.

An on-the-ground weed inventory will be conducted prior to ground disturbing construction activities. A list of weeds observed during the survey, along with maps of weed locations, will be provided to BLM following the survey. Invasive weeds, if feasible, will be managed according to this IWMP prior to, during, and following construction. Table 2 presents currently known invasive weed species located along the Project ROW.

Table 2: Invasive Weed Species Currently Known to Occur along the Project

Scientific Name	Common Name	Threat
<i>Brassica tournefortii</i>	Sahara mustard/wild turnip	highly invasive
<i>Salsola tragus</i>	Russian thistle	limited invasiveness
<i>Tamarix aphyla</i>	athel	highly invasive

2.2 PRECONSTRUCTION AND CONSTRUCTION INVASIVE WEED MANAGEMENT

AT&T will implement preventative and control measures for invasive weeds during the preconstruction, construction, and post construction phases of the Project. AT&T contractors will implement the preventive measures listed below to avoid or minimize the spread of invasive weeds during the construction of the Project.

- Qualified biologists will conduct a weed inventory survey to identify occurrences and populations of invasive weed species within the Project ROW prior to the start of construction. Weed occurrences and populations with an estimated percent cover, not including brome grasses and other invasive grass species, will be mapped during the effort, where feasible. Manageable invasive weeds observed along the Route will be noted and addressed appropriately according to this IWMP.
- A qualified biologist will provide to all construction personnel an environmental awareness training (EAT) and information pamphlet that will include a description of target invasive weeds on the Route and describe the importance of staying within the Project ROW and outside of flagged areas.
- AT&T and/or a qualified biologist will locate predisturbed relatively weed-free areas for temporary equipment storage and parking and other areas needed for the storage of equipment and supplies and for onsite meeting locations.
- All Contractor vehicles and equipment for Project-related activities will be cleaned at approved wash/blowdown stations prior to arrival at the worksite using compressed air or high-pressure water spraying equipment. The wash/blowdown will concentrate on tracks, tires, and the undercarriage; and special emphasis will be placed on axles, frame, cross members, and motor mounts and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out, and refuse will be disposed of in waste receptacles. The Contractor will ensure that vehicles and equipment are free of soil and debris capable of transporting invasive weed seeds, roots, or rhizomes before the vehicles and equipment are allowed use of access roads. Seeds and plant parts will be collected, bagged, and deposited in dumpsters destined for local landfills, when practical.
- When vehicles and equipment are washed/blown down, a log will be kept stating the location, date and time, types of equipment, and methods used during cleaning. The crewmember who washed the vehicle will sign the log. Written logs will be included in the monitoring reports.

- Project personnel will inspect, remove, and dispose of weed seed and plant parts found on their clothing, boots, and personal equipment. The product will be bagged and disposed of in a dumpster for deposit in local landfills or other location deemed acceptable by BLM.
- Project personnel will avoid or minimize all types of travel through weed-infested areas or restrict major activities to periods of time when the spread of seed or plant parts is least likely. The Contractor will begin Project operations in weed-free areas, whenever feasible, before operating in weed-infested areas.
- The Contractor will limit the size of any vegetation and/or ground disturbance to the absolute minimum necessary to perform the activity safely and as designed. The Contractor will also avoid creating soil conditions that promote weed germination and establishment.
- In areas where infestations are identified or noted in the field, the Contractor will remove vegetation and topsoil to eliminate the transport of soil-borne invasive weed seeds, roots, or rhizomes. Cleared vegetation and topsoil from weed infested areas will be disposed of properly.
- The Contractor will ensure that straw or hay bales used for sediment barrier installations or mulch distribution are obtained from state-cleared sources that are free of invasive weeds.
- AT&T will implement reseeding of disturbed lands immediately following construction during the appropriate season as outlined in this IWMP.
- Where hydrologic features (i.e., washes or channels) are present, the original surface contours will be restored in order to retain hydrological function.

2.3 POSTCONSTRUCTION INVASIVE WEED MONITORING

2.3.1 Monitoring Schedule

Monitoring of invasive weeds will begin during the growing season of Year 1 following the completion of Project construction to ensure detection of newly seeded weed species. Monitoring will continue once a year in the growing season of Years 2 through 5.

The Project ROW will be monitored for newly seeded species as well as known populations of target invasive weed species. The percent cover of invasive weeds will be mapped during each year of monitoring and compared to the original mapping effort (baseline data) conducted prior to construction. Any areas within the Project ROW where invasive weed infestations are newly occurring (in areas not previously observed) or where pre-existing populations have increased in size will be further evaluated to determine if these areas require remedial action and treatment. Invasive weed information will be included in the annual IWMP monitoring reports and submitted to the reviewing agencies.

2.3.2 Success Criteria

Success criteria will be based on the baseline data. Known weeds should not increase in percent cover within the Project ROW from the baseline by the end of the 5 year monitoring period. Natural recruitment of weed species will also be considered during the monitoring effort.

If it is determined that new weeds have been introduced due to the Project within the Project ROW, a new population of known invasive weeds is found on the Project ROW, or known weed infestations have increased greater than 25 percent of the baseline data, AT&T will implement remedial measures. When feasible, these new populations or increased populations within the Project ROW, will be physically removed carefully by hand to prevent the spread of seeds, [particularly for Sahara mustard or Russian thistle](#). [If large populations are observed within the ROW, weeds will be treated with a weed whacker in the early seedling stage or rosette stage, prior to flowering](#). Plants and/or seeds will be collected in trash bags and disposed of in an approved facility.

2.3.3 Post Construction Weed Management

As remediation for spread or introduction of invasive weeds due to Project construction activities, AT&T may implement chemical weed control measures. Guidelines for the use of chemical control of vegetation on BLM lands are presented in the Chemical Pest Control Manual (BLM 2013). These guidelines require submittal of a Pesticide Use Proposal (PUP) and Pesticide Application Records (PARs) to the Weed Coordinator at the BLM Barstow Field Office (BFO), for the use of herbicides on BLM lands. Weed management methods and schedules must be coordinated and approved by the BFO. Herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations. Only herbicides and adjuvants approved by the State of California and federal agency for use on public lands will be used on or adjacent to the Project ROW (Appendices C and D, respectively).

AT&T will submit PARs for each use of herbicides on BLM lands within 24 hours of application. The occurrence of newly introduced invasive weeds within the Project ROW or the spread of invasive weeds known to be present prior to construction as detected during the weed assessment survey for the Project, will be reported to the BLM district office. The appropriate invasive weed management methods and weed management schedules will be determined in consultation with BLM personnel. AT&T will be responsible for providing the necessary weed contractor personnel required for weed control procedures. Post construction weed management measures, as a result of findings of invasive weed introduction or spread of pre-existing invasive weed species, include the following:

- Disking or other mechanical treatments that would disturb the soil surface within native habitats outside the Project ROW are prohibited..
- Herbicide application is an effective means of reducing the size of invasive weed populations. Applications will be controlled, as described below, to minimize the impacts on the surrounding vegetation. In areas of dense infestation, a broader application will be used and a follow-up seeding program implemented and will be based on the criteria in Section 4.2, if required. The timing of subsequent reseeding efforts will be based on the life of the selected herbicide.
- Treatment methods will be based on species-specific and area-specific conditions (e.g., proximity to water or riparian areas, or agricultural areas, and time of year) and will be coordinated with the local regulatory offices.
- If areas to be reseeded are not seeded until the following spring because of weather or scheduling constraints, all annuals and undesirable vegetation that have become established will be eradicated before seeding. Seed selection will be based on site-specific conditions and the appropriate seed mix identified for those conditions, as presented in Section 4.2.

Herbicide Application, Handling, Cleanup, and Reporting

Herbicide Application and Handling

Herbicide application will be based on information gathered from the Weed Districts and BLM. Before application of herbicide, AT&T or its Contractors will obtain any required permits from the local authorities. Permits may contain additional terms and conditions that go beyond the scope of this IWMP. Only a state and federally certified contractor who is also approved by BLM will perform herbicide applications. All herbicide application will be conducted in accordance with applicable laws and regulations and permit stipulations. Only herbicides and adjuvants approved by the state and for use on public lands will be used within the Project ROW. A list of approved herbicides and adjuvants is available in Appendix C and Appendix D, respectively.

All herbicide applications and labeling must follow current instructions listed on the United States Environmental Protection Agency website (USEPA 2013). Application of herbicides will be suspended when any of the following conditions exists:

- wind velocity exceeds 6 miles per hour (mph) during application of liquids or 15 mph during application of granular herbicides
- snow or ice covers the foliage of invasive weeds
- precipitation is occurring or is imminent

Vehicle-mounted sprayers (e.g., handgun, boom, and injector) will be used mainly in open areas that are readily accessible by vehicle. Hand application methods (e.g., backpack spraying) that target individual plants will be used to treat small or scattered weed populations in rough terrain. Calibration checks of equipment will be conducted at the beginning of spraying and periodically throughout treatment to ensure that proper application rates are achieved. Herbicides will be transported to the Project ROW daily with the following provisions:

- Only the needed quantity for that day's work will be transported.
- Concentrate will be transported in approved containers only and in a manner that will prevent tipping or spilling and in a location that is isolated from the vehicle's driving compartment, food, clothing, and safety equipment.
- Mixing will be done off site, over a drip-catching device, and at a distance greater than 200 feet from open or flowing water, drainages, washes, or other sensitive resources. No herbicides will be applied at these areas unless authorized by appropriate regulatory agencies.
- All herbicide equipment and containers will be inspected for leaks daily. Disposal of spent containers will be in accordance with the herbicide label.

Herbicide Spills and Cleanup

All reasonable precautions will be taken to avoid herbicide spills. In the event of a spill, cleanup will be immediate. Contractors will keep spill kits in their vehicles and in herbicide storage areas to allow for quick and effective response to spills. Items to be included in the spill kit are:

- protective clothing and gloves
- absorptive clay, “kitty litter,” or other commercial adsorbent
- plastic bags and bucket
- shovel
- fiber brush and screw-in handle
- dust pan
- caution tape
- highway flares (use on established roads only)
- detergent

Response to herbicide spills will vary with the size and location of the spill, but general procedures include:

- BLM/CDFW notification
- traffic control
- dressing the cleanup team in protective clothing
- stopping the leaks
- containing the spilled material
- cleaning up and removing the spilled herbicide or contaminated adsorptive material and soil
- transporting the spilled herbicide and contaminated material to an authorized disposal site

Worker Safety and Spill Reporting

All herbicide contractors will be certified by the state and approved by BLM to apply pesticides and will obtain and have readily available copies of the appropriate material safety data sheets for the herbicides used. All herbicide spills will be reported in accordance with applicable laws and requirements.

2.3.4 Notification of Completion

When yearly monitoring activities are complete, notification of the monitoring will be provided as part of the annual (Years 1 through 4) Plan monitoring report and the final (Year 5) monitoring report. The annual and final Plan reports, submitted by a qualified biologist, will be provided to the reviewing agencies within 60 days of monitoring completion.

Following receipt of the report, the applicant or applicant’s designee may schedule a site visit with the agencies involved, including BLM and CDFW, to confirm the adequate completion of the mitigation effort.

Each annual report will summarize the monitoring and management of all Plan requirements; with the final annual report being submitted after all monitoring schedules (invasive weeds, plant salvage, and reseeded) have been completed.

In addition, if applicable, the annual report will summarize the amount of herbicide used on the Project which must match the submitted PARs. The herbicide use will be reported to the San Bernardino County Department of Agriculture (SBCDA) by BLM.

SECTION 3.0 – PLANT SALVAGE, STOCKPILING, AND TRANSPLANTING PLAN

According to the California Desert Native Plants Act, desert native plants are to be protected from unlawful harvesting on public and private lands and to provide the people of this state the information necessary to legally harvest native plants so the plants are given the greatest chance possible for survival (CDFW 2014). Also, in coordination of the California Desert Native Plants Act, the San Bernardino County Code 88.01.060 regulates the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation of desert resources (SBC 2007).

Plant salvage, as defined in this Plant Salvage, Stockpiling, and Transplanting Plan (PSSTP), is the act of carefully digging up a plant that is located within an area that will be graded or trenched and moving it to a stockpiling location where it is cared for until it may be transplanted back to its original location once construction in the area is complete..

The goal of the PSSTP is to salvage acacia, cacti, and yucca located within the disturbance area of the Project in order to conserve species diversity in the area. The above described activities have the potential to occur within Segments 1 and 2 of the Project Route, as vegetation disturbance is not proposed within Segments, 3 and 4.

This PSSTP is applicable to the construction of the proposed AT&T FOC, the associated facilities, and any other disturbances connected with this Project. AT&T and its contractors will be responsible for carrying out the methods described in this PSSTP. The PSSTP elements discussed below are:

- Plant Salvage Criteria and Procedure
- Plant Salvage Stockpiling
- Transplanting Salvaged Plants
- Plant Salvage Monitoring and Management

3.1 PLANT SALVAGE CRITERIA AND PROCEDURE

Prior to construction, a qualified biologist and/or a salvaging contractor will identify all catclaw acacia (*Senigalia greggii*), cacti, and yucca located within the disturbance areas. A list of all trees to be impacted will be compiled after surveys and provided to BLM, CDFW and SBCDA. A qualified biologist, familiar with transplanting cacti and yucca, should conduct these procedures or direct a salvaging contractor. The biologist will flag for avoidance all individuals targeted for transplanting and individuals near disturbance areas. In addition, the biologist will mark the north orientation for all cacti and yucca to be transplanted. The following criteria will be used for plant salvaging: (1) affected catclaw acacia and desert willow with over a 3 inch diameter at breast height (DBH), (2) all yucca (*Yucca* sp.) less than 10 feet in height, (3) all barrel cactus (*Echinocactus* and *Ferocactus* sp.), (4) all hedgehog cactus (*Echibocereous* sp.), (5) all cottontop cactus (*Echinocactus* sp.), (6) all beavertail cactus (*Opuntia basalaris*), and (7) all cholla (*Cholla* sp.) less than 3 feet in height. All whole catclaw acacia plants, cholla greater than 3 feet in height, and Joshua trees (*Yucca brevifolia*) greater than 10 feet in height will not be salvaged. All cholla greater than 3 feet in height will not be salvaged; however, cuttings may be used depending on the health of the individual. This material may be used as vertical mulch and spread over the surface of the restored areas to discourage possible trespass. Vertical mulching techniques are described below.

Prior to removing any cactus, the plant must be inspected by a biologist qualified to determine if nesting birds, such as cactus wren or other passerine bird species, are occupying or nesting in or around the plant if the removal is to occur during the avian nesting season (March 15 to September 15). Furthermore, the area surrounding the removal site will be surveyed for protected plant and animal species prior to the relocation. In the event that protected plant or animal species are present within the disturbance area, protective measures for the species will be implemented according to the Project permits and documents.

Each individual cutting or plant to be salvaged will be assigned an identification number and will be permanently tagged on the north side of the plant. GPS coordinates will be taken at all removal locations and recorded so that each plant will be returned to its original location on the ROW after the FOC is installed. GPS locations will also be taken and recorded for stockpiling locations so that the plants will be easy to locate when the time for transplanting comes. A general health assessment will be noted for each species as well as its likelihood of surviving transplanting. All salvaged cuttings and plants will be transplanted. The optimal time at which plant salvage should occur is between March and November and when nighttime temperatures do not fall below 60 degrees Fahrenheit.

3.1.1 Catclaw Acacia

Catclaw acacia is a long-lived deciduous shrub/tree with a deep root system, making this species very difficult to salvage and transplant successfully in desert regions. Plants of this genus require plenty of irrigation if transplanted. Any acacia found within the Project ROW will be flagged for avoidance; however, if avoidance is not possible, all impacted catclaw with over a 3 inch DBH shall be replaced at a 3:1 ratio.

3.1.2 Cacti Species

Cacti should be dug by hand and carefully removed in order not to damage roots. Numerous important procedures should be followed during cacti removal/transplanting.

- The rooting distance of cactus is typically three to five times the width of the plant. Therefore, the salvaging contractor should begin the digging/excavation no less than 6 inches and an average of 4 times the width of the above-ground stem segments from the base of the cactus to avoid damaging the roots.
- Cacti are very shallowly rooted. The contractor should excavate all cacti with a shovel just below the root ball of the plant, typically 4 to 8 inches below the soil surface.
- Lift cacti out of their original locations using a worn-out garden hose placed slightly below the midpoint of the plant or using foam squares or a blanket to avoid damaging the spines and the vertical segments of multi-branched cacti.
- Carefully trim any damaged roots, if necessary, using sharp, disinfected scissors that have been cleaned in a 10 percent bleach solution to prevent infection. Tools should be recleaned in the bleach solution after each cut. No healthy roots should be trimmed. The cut roots should be dusted with a powdered fungicide or sulfur to decrease the likelihood of infection and to hasten callousing. Benalate, Captan, and Maneb are effective fungicides. The roots on all cacti should

dry for a minimum of three days and up to two weeks, depending on ambient temperatures, by allowing them to sit in the shade at the stockpiling area.

3.2 PLANT SALVAGE STOCKPILING

During the process of temporary stockpiling, large plants will require support to prevent tipping. Large stones may be placed over the root area (2 to 4 inches from the stem), or tree stakes and tubing may be used to secure top-heavy specimens. The stockpile location will need to be shaded with a minimum of 30 percent shade-level cloth to minimize stress and water loss from the plants.

If nighttime ambient temperatures remain above 60 degrees and potential for theft is low, salvaged plants may be left onsite adjacent to the ROW during drying. When placing the salvaged plants off the ROW, the Contractor will need to ensure additional native plant species are not impacted. Salvaged plants would need to be individually covered with shade cloth if left on site. A qualified biologist will monitor the salvaged plants once after three days and again each subsequent day thereafter to determine the point at which the roots have calloused and the plants are ready to be replanted.

If the potential for theft is high, salvaged plants will need to be transported to a stockpiling area, which must be a protected location (fenced). The fence will consist of an 8-foot high, chain-link locked enclosure. The equipment staging area on site may suffice if the plants can remain undisturbed in the yard. When transplanting between December and February when nighttime temperatures fall below 60 degrees Fahrenheit, extra precautions will need to be taken to ensure plants do not freeze and new roots can continue to form. Additional drying time to harden roots may be required, and the stockpiling area may require extra protection from the elements. Soil temperatures that are too cool can hinder root development, resulting in either delayed establishment or death of the plant.

If more than two weeks are required before transplantation of salvaged plants back onto the ROW can be completed, the salvaged plants will be transferred to prepared 3-foot-wide, 18-inch-deep stockpiling trenches of any desired length after their roots have calloused. If multiple, parallel trenches are used, they should be far enough apart to allow heavy equipment access to each trench. Trenches shall be watered thoroughly prior to transplanting the plant material. In planting cacti and yucca, they should be placed in the trench and the roots covered with native soil. Care should be taken to properly tamp down and compact all soil around roots of plants to remove all air pockets. A depression around each plant should be formed to hold water. Watering within the fenced enclosure will occur two times per week during plant establishment.

3.3 TRANSPLANTING SALVAGED PLANTS

All salvaged plant material should be replanted in a natural pattern and as close to its original location as possible. Each plant must be replanted at the original depth and orientation and, as much as practicable, in the same soil conditions as its original location.

Plants will be carefully removed from the stockpiling area or from where they were positioned adjacent to the site, taking care not to damage stems, roots, or the base of the plant. Catclaw acacia cuttings should be placed in containers or into the ground as soon as possible, with up to three-quarters of the cutting buried. Cacti will be planted into holes two to three times the width of the species but only as deep as the root ball. Large, single-stem yucca will be planted into a hole at least 2 feet deep and 3 feet wide. Multiple-stem plantings will be accordingly larger to accommodate the stem size. The salvaged

plants will be planted and the soil tamped by hand or with the handle of a shovel around the plant so that no air pockets are around the roots.

3.3.1 Shading

The plants are to be covered with shade cloth (30 percent) if planting occurs during the summer to protect the plant from the sun and minimize water loss. Shade cloth may be placed directly on the plant or on a support. The shade cloth can be removed at the first sign of establishment and growth (which may take up to one year).

3.3.2 Staking

It will not be necessary to secure plants less than 5 feet in height after transplanting; however, larger plants will require staking. A collar should be placed around the plant using a material that will not cut into the skin. This collar should be attached to wire and connected to rods or stakes that have been driven into the ground. A stake should be placed on each side of the plant. This support should be left on the plant for at least three months if the soil is heavy or for six months if the soil is finer or the location is very rocky. The stakes can be removed when the plant has developed new growth and is stable in the ground.

3.3.3 Watering

Cacti and yuccas should be watered deeply and slowly at the time they are transplanted to remove or minimize any air pockets and ensure proper soil compaction. After the first watering, the backfill soil settles, and the plant may shift or lean. Cuttings should be placed in wetted holes and then backfilled with moist or wet soil and tamped well. The plant should be straightened, the soil firmed, and the stakes resecured, if necessary. An additional watering event approximately 15 days after planting shall occur.

If transplanting takes place in the spring, it will be necessary to water regularly through the first summer. In the hottest days of the summer, this will be every two to three weeks unless rain falls. If the plant is transplanted near the end of the summer, it will need water only two to three times during the winter. A summer water schedule should begin when the weather has warmed and no rain has fallen for 30 days, typically in April. When monsoon rains arrive in July, irrigation should be reduced or discontinued until the end of the monsoon season in September.

To reduce labor associated with hand-watering, DriWater can be applied around the base of each plant at a rate of 1 quart for every foot in plant height instead of manually watering the plants. DriWater is a gelatinous polymer that slowly breaks down into water over time. DriWater comes in biodegradable cartons and is applied by cutting the top of the carton and placing it upside down around the plant to be watered. DriWater cartons are to be buried completely or according to manufacturer's directions. At the soil surface, a watering well will be formed around the plant. After the DriWater is installed at the base of the plant and the soil is tamped, the plant is thoroughly watered to activate the DriWater. Typically, the DriWater will need to be replaced at the end of two months, depending on weather conditions.

3.3.4 Vertical Mulch

Vertical mulching involves installing dead and downed plant materials into the ground. Placing vertical mulch (shrubs, cacti, grasses, etc.) helps obscure closed roads or barren ROWs, which is especially

important to discourage trespass at former access roads or staging areas. Vertical mulch reduces wind speed, facilitates deposition of blowing soil and organic litter, and creates safe sites for plant establishment. Any cacti or yucca species that were beyond the suitable range for transplanting can be installed as vertical mulch on the ROW.

3.4 PLANT SALVAGE MONITORING AND MANAGEMENT

3.4.1 Monitoring Schedule

Monitoring of transplanted plants will begin during the growing season of Year 1 following the completion of Project construction. Monitoring will continue during the growing seasons in Years 2 through 5 following the completion of construction. Monitoring will be conducted by a qualified biologist and will include visiting each transplanted individual and taking notes on the plant conditions. It should be noted that mortality rates of transplanted plants is high and not unusual.

3.4.2 Success Criteria and Contingency Measures

Success criteria and contingency measures of transplanted plants will be based on the following:

- During Year 1 monitoring, DriWater will be applied around the base of each plant at a rate of 1 quart for every foot in plant height to all transplanted plants that appear to have less than satisfactory survival conditions, based on the qualified biologists plant health observations, in order to increase the plants chance of survival and in order to be proactive in meeting the success criteria for transplanted species.
- If mortality of any transplanted species is confirmed during monitoring and the total number of mortality falls below a 60 percent survivorship criteria, seeds of that species will be sown in that area. For every full-sized mature plant that was lost, 10 seedlings of the same species will be planted in the vicinity of the original planting with similar soil conditions; and the following contingency measures will be implemented. Individuals that did not survive will be left in place as vertical mulch.
 - Remedial seedlings should be obtained from a local native nursery. If cacti collected from a desert habitat within a 20-mile radius are not available, the contractor may arrange for seed collection or asexual propagation of the cactus species (excluding barrel cactus) to occur under the direct guidance of a nursery and with the approval of the a qualified biologist.
 - Small cuttings (i.e., individual limbs, single pads) from healthy cacti of the same species may be salvaged from areas adjacent to the Project ROW as long as this action will not adversely affect the parent plant and has approval from BLM. The procedure for taking cuttings follows that for trimming roots, as described above. Disinfected tools must be used; sulfur and fungicide must be applied to the cut surfaces of both the parent plant and the cutting; the cutting must be dried prior to planting; and the cutting must be watered immediately after installation on the ROW and again 15 days after planting.

3.4.3 Notification of Completion

When yearly plant salvage monitoring activities are complete, notification will be provided as part of the annual (Year 1 through 4) Plan monitoring report and the final (Year 5) Plan monitoring report. The annual and final Plan reports, submitted by a qualified biologist, will be provided to the reviewing agencies within 60 days of monitoring completion.

Following receipt of the report, the applicant or applicant's designee may schedule a site visit with the agencies involved, including BLM and CDFW, to confirm the adequate completion of the mitigation effort.

Each annual report will summarize the monitoring and management of all Plan requirements; with the final annual report being submitted after all monitoring schedules (invasive weeds, plant salvage, and reseeding) have been completed.

SECTION 4.0 – TOPSOIL SALVAGE AND RESEEDING PLAN

AT&T will be required to preserve, salvage, and replace topsoil or reseed all proposed disturbance areas where vegetation communities occurred prior to construction and according to the vegetation mapping conducted during the biological reconnaissance survey located in the BTR, BA, and EA for this Project.

AT&T will use a combination of topsoil salvage during construction, where feasible, and reseeding after Project construction is complete. The purpose of this Topsoil Salvage and Reseeding Plan (TSRP) is to preserve or restore the native seed bank so that native vegetation may grow back to preconstruction conditions or close to preconstruction conditions, as well as to minimize the possibility of weed infestations.

4.1 TOPSOIL SALVAGE AND REPLACEMENT

Topsoil, as defined in this TSRP, is the soil proposed for avoidance where it occurs outside the trench line or proposed for collection, where necessary, within the trench line where native vegetation occurs. Topsoil includes the first 4 to 8 inches of soil and contains the organic layer with most of the plants' fine roots (roots mostly the thickness of a pencil lead or thinner) and the seed bank of plant species in the area. Topsoil is the soil where most plant growth occurs. Topsoil will not be collected and replaced in weed infested areas. The biological monitor will monitor topsoil salvage to ensure topsoil is not salvaged from weed-infested areas.

4.1.1 Topsoil Salvage Criteria and Procedures

Topsoil Salvage by Avoidance

In areas where habitat is within the proposed disturbance areas and if impacts may or will occur in those areas due to being located where spoils from the trench will be piled, vegetation will be covered with silt fencing (or other plastic covering) prior to trenching activities. The silt fencing/covering is not expected to be used for more than one day at a time because only the amount of trenching and FOC placement that can be accomplished in one day will be planned for that day. If a covering is expected to be used for more than one day at a time during the summer, a lighter color covering will be used to prevent vegetation from getting overheated. Covering the vegetation will minimize the uprooting of vegetation due to backfilling activities as a result of dragging the equipment bucket directly over plants. Backfilling activities would instead consist of carefully pushing soils off the plastic covering to avoid uprooting vegetation, to the greatest extent possible, while keeping the topsoil intact. The above described activities have the potential to occur within Segment 1 of the Project Route, as vegetation disturbance is not proposed within Segments 2, 3, and 4.

Topsoil Salvage by Collection

Trenching activities during AT&T FOC installation typically involve three main steps: digging a length of trench with the length being just enough for a full day's work (on average 3,000 feet), placing conduit in the trench, and backfilling the trench. Therefore, on most days, all spoils as a result of trenching are backfilled the same day they are trenched. To minimize topsoil from mixing with subsoil during trenching and backfilling activities, collection of topsoil will be conducted during construction directly ahead of trenching activities, where required (i.e., if the seed bank of special status plants known to occur in any given area needs to be salvaged). The topsoil may be collected with an excavator, front

loader, or other construction equipment capable of carefully scooping the top 4 to 8 inches of soil for the width and length of the trench line and carefully storing it next to the trench line or in a staging area where it will not be mixed with subsoil. Storage options may include the points below, and the contractor may have additional solutions as long as the procedure is explained to and approved by the Project biologist. Solutions must be in compliance with Project documents and permits.

- Topsoil may be placed where spoils will be casted and covered with plastic after placement in order to keep topsoil separate from subsoil. In this case, a bulldozer would not be acceptable for backfilling but instead an excavator, front loader, or other construction equipment would be required that may carefully backfill so that the plastic cover remains in place until all subsoil is in the trench. Once all subsoil is in the trench, the plastic may be removed and the topsoil will be placed back on top of the trench line. Care must be taken not to remove topsoil from areas where spoils were casted.
- Topsoil storage may also occur within potential minimal-use areas between shrubs if the potential minimal-use areas will not be subject to traffic. When placing topsoil back into the trench, care must be taken not to uproot vegetation present in the potential minimal-use area. Care must also be taken not to remove topsoil from potential minimal use areas. If necessary, plastic should be laid out prior to stockpiling topsoil.
- Topsoil may be transported with a front loader, dump truck, or a heavy duty truck with a trailer to an approved nearby staging area and replaced once subsoil has been backfilled. Topsoil will be stored in separate piles within the staging area so that each pile contains topsoil from a segment no greater than 1,200 feet. Piles must be labeled in a way so that they are replaced in the segment they came from.

Soil types vary along the Project Route, and conditions of growth for specific plant species depend on specific soil types; therefore, salvaged topsoil will be returned as closely to its original location as possible, but within roughly 1,200 feet of the original location.

Topsoil collection will begin by rolling the machinery across the area proposed for trenching to crush any standing brush or other vegetation. Rocks and organic debris will be collected with the soil. All the components of the soil are desired because of their value in carrying soil organisms, propagating native plants, and providing favorable germination sites for seeds. Organic material is especially valuable, and crushed brush adds a very beneficial component to the restoration soil.

Once conduit has been installed in the trench and the trench is backfilled with subsoil, subsoil will be compacted and topsoil placed on top. Topsoil can be easily diluted and degraded if mixed with subsoil. Trenches should be refilled with subsoil to the appropriate depth and recompact to minimize soil differences. Topsoil should not be used to fill a trench cut into shallow caliche soils (a sedimentary rock - hardened natural cement of calcium carbonate that can be bound with gravel, sand, clay and silt). Plants that grow in the fill will be different than those in the surrounding area. If a caliche layer is disturbed, it can be imitated by using a thin slurry of cement installed to block deep roots (Bainbridge 2007). The topsoil should be reapplied dry. Topsoil should be carried to the finished trench by front loader or similar equipment. The positioning of topsoil must be planned so that subsequent trips will not have to cross the first deposits of topsoil. In other words, repeated vehicle traffic must not cross the topsoil once it has been replaced. Hand labor or light equipment may be used to spread the topsoil downward across

a slope. The topsoil may be spread over approximately twice the area from which it was collected if necessary, but a depth of 4 inches is the objective.

Plastic used to cover salvaged topsoil or used to lay topsoil on must be disposed of properly or may be reused for another day if in good condition.

4.1.2 Notification of Completion

A biological monitor or monitors will be on site during all Project construction activities and will document topsoil salvage if and where it is required. Each monitor will fill out a daily log each day while in the field to record compliance of measures required in Project documents and permits. Construction activities and compliance will be summarized in the post construction annual and final reports submitted for the Project to reviewing agencies. The topsoil method used and an analysis of its success will be included in the construction summary.

4.2 RESEEDING

Ground disturbance requiring reseeding includes FOC installation activities within Segment 1. If topsoil will not be salvaged, a trench is created by equipment that digs along the trench line or, in the process of removing coaxial cable, not being careful to separate topsoil from subsoil and, as a result, mixing topsoil with subsoil and thus losing the native seed bank located within the existing topsoil. Reseeding, as defined in this TSRP, is the act of sowing native seed of plants that occur adjacent to the disturbance areas into previously vegetated proposed disturbance areas once construction is complete so that the result is topsoil with a native seed bank.

4.2.1 Reseeding Procedure

Reseeding will occur with the appropriate seed mix within previously vegetated disturbance areas where native vegetation was uprooted as a result of construction activities. Again, reseeding will occur within Segment 1 only, as vegetation disturbance, including the loss of topsoil and the seed bank, is not proposed within Segments 2, 3, and 4.

Pure Live Seed (PLS) is a standardized measurement of the number of live seeds in a given sample. After seeds are cleaned, the PLS is calculated based on the results from purity and germination trials, typically conducted at independent seed testing labs. Quantities represented in the tables below indicate PLS numbers. If lower germination rates are expected, quantities may need to be adjusted. Table 3 and Table 4 list a recommended seed mix and amounts needed for the Project.

The revegetation site will be seeded with up to 10 to 15 pounds of seed. Depending on availability at the time of purchasing, substitutions and quantities presented below will be adjusted at the biologist's discretion. Major changes to the species composition would be approved by BLM prior to installation. Actual quantities and species installed will be summarized in an As-Built report included with the first annual monitoring report.

Table 3: Recommended Native Seed Mix for Reseeding Creosote Bush-White Bursage Scrub Series

Common Name	Scientific Name	Amount for Broadcast Seeding*
Indian ricegrass	<i>Achnatherum hymenoides</i>	1.5lbs./acre
white bursage	<i>Ambrosia dumosa</i>	2 lbs./acre
woolly bursage	<i>Ambrosia eriocentra</i>	1.0 lb./acre
desert marigold	<i>Baileya multiradiata</i>	1.0 lb./acre
sweetbush	<i>Bebbia juncea</i> var. <i>aspera</i>	0.5 lb./acre
golden cholla	<i>Cylindropuntia echinocarpa</i>	0.5 lb./acre
Nevada ephedra	<i>Ephedra nevadensis</i>	0.5 lb./acre
desert trumpet	<i>Eriogonum inflatum</i>	0.5 lb./acre
Pima rhatany	<i>Krameria grayii</i>	0.5 lb./acre
big galleta grass	<i>Hilaria rigida</i>	2.0 lbs./acre
creosote bush	<i>Larrea tridentata</i>	1.5 lbs./acre
beavertail cactus	<i>Opuntia basilaris</i> (1)	0.5 lb./acre
sandpaper plant	<i>Petalonyx thurberi</i>	0.5 lb./acre
wooly plantain	<i>Plangato patagonica</i>	1.0 lb./acre
bladder sage	<i>Salazaria mexicana</i>	0.5 lb./acre
Mojave yucca	<i>Yucca schidigera</i>	0.5 lb./acre
Total		14.5 lbs./acre
*Based on PLS and seeding with a broadcast spreader.		

Table 4: Recommended Native Seed Mix for Reseeding Mixed Saltbush Series 1

Common Name	Scientific Name	Amount for Broadcast Seeding*
Indian ricegrass	<i>Achnatherum hymenoides</i>	1.5 lbs./acre
desert needlegrass	<i>Achnatherum speciosum</i>	1.5 lbs./acre
white bursage	<i>Ambrosia dumosa</i>	1.0 lbs./acre
cheesebush	<i>Ambrosia salsola</i> var. <i>salsola</i>	1.0 lbs./acre
four-wing saltbush	<i>Atriplex canescens</i>	1.0 lbs./acre
Mojave saltbush	<i>Atriplex spinifera</i>	1.0 lb./acre
desert holly	<i>Atriplex hymenoletra</i>	1.0 lb./acre
alkali saltbush	<i>Atriplex polycarpa</i>	1.0 lb./acre
desert fiddleneck	<i>Amsinckia tessellata</i>	1.0 lb./acre
inland saltgrass	<i>Distichlis spicata</i>	1.0 lbs./acre
rubber rabbitbrush	<i>Ericameria nauseosa</i>	1.0 lb./acre
Total		128.0 lbs./acre
*Based on PLS and seeding with a broadcast spreader.		

Reseeding will be conducted in November and/or December to take advantage of winter rains. Prior to seeding, a rake will be used to loosely scarify the soil; and shovels or picks may be used for localized decompaction, if necessary. Hand tools will be utilized in small areas while a rake attachment on a

tractor may be utilized in larger areas. The seed mixes provided in Table 3 and Table 4 will be applied with a broadcast spreader. Once the seed is applied, the soil surface will be raked a second time to ensure the seeds are covered and predation by seed-eating animals (granivores) is minimized.

4.2.2 Reseeding Maintenance and Monitoring

Monitoring Schedule

Reseeding will be conducted in Year 1 at the completion of Project construction. Monitoring of the reseeded area will occur in Years 2 through 5. Reseeded areas will be seeded again if the reseeded area does not meet the reseeding criteria, taking into account that the germination and survival of the seeds is completely dependent upon rainfall and other natural conditions. An irrigation system is not an option, as this is a linear project in the Mojave Desert.

Success Criteria

Reseeding success criteria will be based on the percent cover of vegetation adjacent to the disturbance area; therefore, germination and survivorship is expected to reach 60 percent of the percent cover of vegetation adjacent (within 20 feet) to the disturbed area within the Project ROW. If this goal is not met in areas by Year 5 of monitoring, those areas that did not meet the success criteria will be reseeded once more.

Notification of Completion

When the yearly reseeding monitoring activities are complete, notification will be provided as part of the annual (Years 1 through 4) Plan monitoring report and the final (Year 5) Plan monitoring report. The annual and final Plan reports, submitted by a qualified biologist, will be provided to the reviewing agencies within 60 days of monitoring completion.

Following receipt of the report, the applicant or applicant's designee may schedule a site visit with the agencies involved, including BLM and CDFW, to confirm the adequate completion of the mitigation effort.

Each annual report will summarize the monitoring and management of all Plan requirements; with the final annual report being submitted after all monitoring schedules (invasive weeds, plant salvage, and reseeding) have been completed.

SECTION 5.0 – REFERENCES

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United States Department of Agriculture (USDA)

- 2012 Federal Noxious Weed List. Animal and Plant Health Inspection Service. Accessed on August 11, 2014 at http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/weedlist.pdf.

APPENDIX B – PLANT SPECIES OBSERVED ONSITE



APPENDIX B: PLANT SPECIES OBSERVED ON SITE

Scientific Name	Common Name
AMARANTHACEAE	AMARANTH FAMILY
<i>Amaranthus albus</i> *	tumbling pigweed
APOCYNACEAE	DOGBANE FAMILY
<i>Asclepias albicans</i>	white-stem/wax milkweed
<i>Asclepias erosa</i>	desert milkweed
<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>	climbing milkweed
ASTERACEAE	SUNFLOWER FAMILY
<i>Acamptopappus sphaerocephalus</i>	goldenhead
<i>Ambrosia dumosa</i>	white bur-sage
<i>Ambrosia salsola</i> var. <i>salsola</i>	cheesebush
<i>Baileya multiradiata</i>	desert marigold
<i>Baileya pauciradiata</i>	short-ray desert marigold
<i>Bebbia juncea</i> var. <i>aspera</i>	Sweetbush
<i>Chaenactis fremontii</i>	Fremont pincushion
<i>Encelia actoni</i>	Acton daisy
<i>Encelia frutescens</i>	rayles encelia
<i>Monoptilon bellioides</i>	Mohave desert star
<i>Malacothrix glabrata</i>	desert dandelion
<i>Psathyrotes ramosissima</i>	velvet rosettes, turtleback
<i>Psilocarphus tenellus</i>	slender woolly-heads
<i>Rafinesquia neomexicana</i>	desert chicory
BORAGINACEAE	BORAGE FAMILY
<i>Amsinckia tessellata</i>	devil's lettuce
<i>Cryptantha barbigeria</i> var. <i>barbigeria</i>	bearded cryptantha
<i>Cryptantha circumscissa</i>	western cryptantha
<i>Cryptantha pterocarya</i> var. <i>pterocarya</i>	wing-nut cryptantha
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	salt heliotrope
<i>Pectocarya penicillata</i>	sleeping combseed
<i>Pectocarya platycarpa</i>	broad-fruit pectocarya
<i>Phacelia distans</i>	wild heliotrope
<i>Phacelia crenulata</i> var. <i>minutiflora</i>	Phacelia
BRASSICACEAE	MUSTARD FAMILY
<i>Brassica tournefortii</i>	wild turnip
<i>Descurainia pinnata</i> subsp. <i>glabra</i>	western tansy-mustard
<i>Lepidium lasiocarpum</i> subsp. <i>lasiocarpum</i>	sand peppergrass
<i>Sisymbrium altissimum</i> *	tumble mustard
CACTACEAE	CACTUS FAMILY
<i>Cylindropuntia echinocarpa</i>	golden cholla

Scientific Name	Common Name
CHENOPODIACEAE	GOOSEFOOT FAMILY
<i>Atriplex canescens</i>	four-wing saltbush
<i>Atriplex hymenelytra</i>	desert holly
<i>Atriplex polycarpa</i>	allscale
<i>Grayia spinosa</i>	spiny Hopsage
<i>Salsola tragus*</i>	Russian thistle
<i>Suaeda nigra</i>	bush seepweed
CLEMOMACEAE	SPIDERFLOWER FAMILY
<i>Peritoma arborea</i>	bladderpod
CUCURBITACEAE	GOURD FAMILY
<i>Cucurbita palmata</i>	coyote melon
CONVOLVULACEAE	MORNING-GLORY FAMILY
<i>Cuscuta denticulata</i>	desert dodder
EUPHORBIACEAE	SPURGE FAMILY
<i>Chamaesyce parishii</i>	Parish's spurge
<i>Croton setiger</i>	turkey mullien
FABACEAE	LEGUME FAMILY
<i>Dalea mollis</i>	hairy prairieclover
<i>Senna armata</i>	spiny senna
GERANIACEAE	GERANIUM FAMILY
<i>Erodium cicutarium*</i>	Red-stemmed filaree
LAMIACEAE	MINT FAMILY
<i>Salvia columbariae</i>	Chia
LOASACEAE	LOASA FAMILY
<i>Mentzelia veatchiana</i>	Veatch's blazingstar
MALVACEAE	MALLOW FAMILY
<i>Eremalche rotundifolia</i>	desert five-spot
<i>Malva parviflora*</i>	Cheeseweed
ONAGRACEAE	EVENING PRIMROSE FAMILY
<i>Camissonia campestris</i>	field evening primrose
<i>Chylismia brevipes subsp. brevipes</i>	yellow cups
<i>Chylismia claviformis subsp. claviformis</i>	brown-eyed evening primrose
<i>Eremothera boothii</i>	Booth's evening primrose
PAPAVERACEAE	POPPY FAMILY
<i>Eschscholzia minutiflora</i>	pygmy goldenpoppy
PLANTAGINACEAE	PLANTAIN FAMILY
<i>Plantago ovata</i>	woolly plantain
POLEMONIACEAE	PHLOX FAMILY
<i>Langloisia setosissima subsp. setosissima</i>	bristly langloisia

Scientific Name	Common Name
<i>Chorizanthe brevicornu</i> var. <i>brevicornu</i>	brittle spineflower
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Chorizanthe rigida</i>	Rigid spineflower
<i>Eriogonum deflexum</i> var. <i>deflexum</i>	flat-topped buckwheat
<i>Eriogonum inflatum</i>	desert trumpet
RESACEAE	MIGNONETTE FAMILY
<i>Oligomeris linifolia</i>	narrow-leaved oligomeris
SOLANACEAE	NIGHTSHADE FAMILY
<i>Lycium andersonii</i>	Anderson's wolfberry
<i>Physalis crassifolia</i>	Greene's ground-cherry
TAMARICACEAE	TAMARISK FAMILY
<i>Tamarix aphyla</i>	Athel
ZYGOPHYLLACEAE	CALTROP FAMILY
<i>Larrea tridentata</i>	creosote bush
ARECACEAE	PALM FAMILY
<i>Washingtonia robusta</i> *	Mexican fan palm
POACEAE	GRASS FAMILY
<i>Bromus madritensis</i> subsp. <i>rubens</i> *	red brome
<i>Cynodon dactylon</i> *	Bermuda grass
<i>Festuca myuros</i> *	hairy rat-tail fescue
<i>Phalaris aquatica</i> *	Harding grass
<i>Schismus barbatus</i> *	Mediterranean schismus
*nonnative species	

APPENDIX C – WILDLIFE SPECIES OBSERVED/DETECTED ONSITE



APPENDIX C: WILDLIFE SPECIES OBSERVED/DETECTED ON SITE

Scientific Name	Common Name
CLASS REPTILIA	REPTILES
TESTUDINIDAE	LAND TORTOISES
<i>Gopherus agassizii</i>	desert tortoise
IGUANIDAE	IGUANAS
<i>Sauromalus obesus</i>	chuckwalla
<i>Dipsosaurus dorsalis</i>	desert iguana
PHRYNOSOMATIDAE	ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY,
<i>Callisaurus draconoides</i>	common zebra-tail lizard
<i>Uta stansburiana</i>	side-blotched lizard
TEIIDAE	WHIPTAIL LIZARDS
<i>Aspidoscelis tigris tigris</i>	Great Basin whiptail
CROTALIDAE	PIT VIPERS
<i>Crotalus cerastes cerastes</i>	Mojave desert sidewinder
CLASS AVES	BIRDS
ANATIDAE	DUCKS, GEESE, SWANS
<i>Anas cyanoptera</i>	Cinnamon teal
SCOLOPACIDAE	SANDPIPERS
<i>Calidris mauri</i>	western sandpiper
CATHARTIDAE	NEW WORLD VULTURES
<i>Cathartes aura</i>	turkey vulture
ACCIPITRIDAE	HAWKS, KITES, & EAGLES
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Buteo swainsoni</i>	Swainson's hawk
FALCONIDAE	FALCONS
<i>Falco sparverius</i>	American kestrel
STRIGIDAE	TRUE OWLS
<i>Athene cunicularia</i>	burrowing owl
APODIDAE	SWIFTS
<i>Aeronautes saxatalis</i>	white-throated swift
TYRANNIDAE	TYRANT FLYCATCHERS
<i>Tyrannus vociferans</i>	Cassin's kingbird
ALAUDIDAE	LARKS
<i>Eremophila alpestris</i>	horned lark
CORVIDAE	JAYS, MAGPIES, & CROWS
<i>Corvus corax</i>	common raven
ICTERIDAE	BLACKBIRDS
<i>Quiscalus mexicanus</i>	great-tailed grackle

Scientific Name	Common Name
TROGLODYTIDAE	WRENS
<i>Salpinctes obsoletus</i>	rock wren
EMBERIZIDAE	SPARROWS & ALLIES
<i>Amphispiza bilineata</i>	black-throated sparrow
FRINGILLIDAE	FINCHES
<i>Carpodacus mexicanus</i>	house finch
LANIIDAE	SHRIKES
<i>Lanius ludovicianus</i>	loggerhead shrike
STURNIDAE	STARLINGS
<i>Sturnus vulgaris</i>	European starling
CLASS MAMMALIA	MAMMALS
LEPORIDAE	HARES & RABBITS
<i>Lepus californicus</i>	black-tailed jackrabbit
SCIURIDAE	SQUIRRELS
<i>Ammospermophilus leucurus</i>	white-tailed antelope squirrel
CANIDAE	FOXES, WOLVES, COYOTES, & RELATIVES
<i>Vulpes macrotis</i>	kit fox
<i>Canis latrans</i>	coyote
EQUIDAE	HORSES & BURROS
<i>Equus asinus</i>	wild burro (feral ass)

APPENDIX D – SITE PHOTOGRAPHS



ATTACHMENT D – SITE PHOTOGRAPHS



Photo 1:

This photo shows the cell tower on military property, facing southwest located at the northern end of the Project.



Photo 2:

This photo shows State Route (SR) 127 facing east towards Baker, Ca, with a view of both sides of the shoulder.



Photo 3:

This photo shows scattered Allscale Series with Silver Lake dry lakebed in the background, facing east.

ATTACHMENT A – SITE PHOTOGRAPHS



Photo 4:

This photo shows Creosote Bush-White Bursage Scrub Series, facing south.



Photo:5

This photo shows Silver Lake Dry Lakebed, facing east.



Photo 6:

Facing north, this photo shows the Disturbed/Developed dirt access road and AT&T ROW, with a substation and transmission line surrounded by Desert Saltbush Scrub, and SR- 127 in the foreground.



Photo 7:

This photo depicts the burrowing owl pellet, composed of all insect parts, observed within a depression of an old kit fox den complex along the 600-meter transect during the desert tortoise presence/absence survey.



Photo 8:

This photo depicts a Class 4 desert tortoise burrow observed in the 400-meter perimeter transect during the desert tortoise presence/absence survey.



Photo 9:

This photo depicts a Class 2 desert tortoise burrow observed in the 200-meter perimeter transect during the desert tortoise presence/absence survey.

APPENDIX E – DESERT TORTOISE PRESENCE/ABSENCE AND CLEARANCE FORMS



**DESERT TORTOISE PRESENCE/ABSENCE - CLEARANCE SURVEY**

BIOLOGIST(S) Alicia Onuf

DAY & DATE Tuesday April 8, 2014

PROJECT NAME & NUMBER 20692 Hwy 127 AT+T

City: Baker / FE. Knott County: San Bernardino State: CA

Transect# _____ MP to MP (mileposts): 575760
3914825 Length: _____ ft. Width: 30 ft. OR _____ ft.

Project Site/ROW ☒ Zone of Influence (ZOI) ☐ Ft. from Project ROW

Time (start): 0910 Cloud % 10% Temp: 73 Wind: 1-3 Elevation: 1035 ft.

Time (end): 1400 Cloud % 100 Temp: 96 Wind: 0-2 Elevation: 919 ft.

Aspect _____ % Slope _____ Adjacent Land Use Military base, wildlife research area

Vegetation Community Croset scrub - LA172, ~~LA172~~ AMBDIM

Soil (rock, sand, caliche etc.) sand/gravel Land Form(s)- mesa, bajada, wash etc. Mesa

SIGNS OF HUMAN DISTURBANCE – NUMBER AND TYPES SEEN

☒ TIRE TRACKS ☒ SHOTGUN/RIFLE SHELLS ☐ BLADING ☐ RAVENS ☒ TRASH
☐ DUMP SITES ☒ HUMAN FOOTPRINTS ☐ DOG SIGN ☐ OTHER

INFORMATION ON TORTOISE SIGN

[illegible][illegible]

**DESERT TORTOISE PRESENCE/ABSENCE - CLEARANCE SURVEY**

BIOLOGIST(S) Alicia Ornel DAY & DATE Thurs April 10, 2014

PROJECT NAME & NUMBER Box 127 201092

City: Baker County: San Bernardino State: CA

Transect# 4 MP to MP (mileposts): _____ length: _____ ft. Width 30 ft. OR _____ ft.

Project Site/ROW	Zone of Influence (ZOI)	Ft. from Project ROW
<input checked="" type="checkbox"/>	<input type="checkbox"/>	45

Time (start): 0715 Cloud % 5 Temp: 63 Wind: 1-2 Elevation: 912 ft.

Time (end): 1410 Cloud % 5 Temp: 95 Wind: 2-5 Elevation: 930 ft.

Aspect 0 %Slope 0 Adjacent Land Use BLM quarry

Vegetation Community Saltmarsh scrub

Soil (rock, sand, caliche etc.) gravel, sand, caliche and Form(s)- mesa, bajada, wash etc. dry lake bed

SIGNS OF HUMAN DISTURBANCE – NUMBER AND TYPES SEEN

☒ TIRE TRACKS ☐ SHOTGUN/RIFLE SHELLS ☐ BLADING ☒ RAVENS ☒ TRASH
☒ DUMP SITES ☐ HUMAN FOOTPRINTS ☐ DOG SIGN ☐ OTHER

INFORMATION ON TORTOISE SIGN

[illegible]

Sign #	Comments on conditions of shelter sites (active/inactive-why?), scat, shell remains, human disturbances. (continue on page 2 if necessary)

WILD LIFE: Sidelotch lizard, TUVU, chuckwalla, sparrow sp., CORA



DESERT TORTOISE PRESENCE/ABSENCE - CLEARANCE SURVEY

BIOLOGIST(S) Ben DelaneyDAY & DATE Tue. 4/15/2014

PROJECT NAME & NUMBER

20692 Hwy 127City: Baker / Ft. IrwinCounty: San BernardinoState: CATransect# 400 MP to MP (mileposts): _____ Length: _____ ft. Width: 30 ft. OR _____ ft.Project Site/ROW ☐ Zone of Influence (ZOI) ☒ _____ Ft. from Project ROWTime (start): 0720 Cloud % 85 Temp: 61° Wind: 1mph Elevation: 903 ft.Time (end): 14010 Cloud % 30 Temp: 88° Wind: 0 Elevation: 930 ft.Aspect _____ %Slope 0-30 Adjacent Land Use military trainingVegetation Community creosote bush scrubSoil (rock, sand, caliche etc.) Sand Land Form(s)- mesa, bajada, wash etc. mesa

SIGNS OF HUMAN DISTURBANCE - NUMBER AND TYPES SEEN

☒ TIRE TRACKS ☐ SHOTGUN/RIFLE SHELLS ☐ BLADING ☐ RAVENS ☒ TRASH
☐ DUMP SITES ☐ HUMAN FOOTPRINTS ☐ DOG SIGN ☐ OTHER

INFORMATION ON TORTOISE SIGN

SIGN #	TYPE scat, bone, burrow, etc.	CLASS# Scat, burrows, shell remains	W x H x L or SIZE Width x Height x Length	Burrow Direction (aspect)	Nearest Plant Species	Elev. (feet)	GPS location (NAD 83)
1	Burrow	4	24x18x24	273	Salt bush	1019	0577713, 3414213
2	Burrow	4	86x20x45	66	Salt bush	1065	0576054, 3415110
3	Burrow	4	40x32x45	328	Salt bush	1053	0576034, 3415100
4	Burrow	4	610x43x245	384	Salt bush	1053	0578034, 3415100

Sign # _____ Comments on conditions of shelter sites (active/inactive-why?), scat, shell remains, human disturbances.
(continue on page 2 if necessary)

0575104 x 3414269 - 0577321, 3413376
0578158, 3414249 - 0577214, 3414215
0583064, 3405734 - 0583767, 3404065

Class 4 Burrows observed, no Buak sign observed

Desert Iguana, Western Whiptail, Uta.

DESSERT TORTOISE PRESENCE/ABSENCE - CLEARANCE SURVEY

BIOLOGIST(S) Joseph Harris DAY & DATE Wed, 4/10/17

PROJECT NAME & NUMBER HWY 127, 20692

City: Et. Briaud Baker County: San Bernardino State: Ca

Transect# 400 MP to MP (mileposts): none MP 100 →
length: 7.2 mi ft. Width: 30 ft. OR 200 ft.

Project Site/ROW	Zone of Influence (ZOI)	Ft. from Project ROW
		

Time (start): 0700 Cloud % 0 Temp: 70 Wind: 6-1 Elevation: 9400 ft.

Time (end): 0140 Cloud % 0 Temp: 91 Wind: 0-1 Elevation: 930 ft.

Aspect	% Slope	Adjacent Land Use
	0-3	Barren / Urban

Vegetation Community Selfish scrub

Soil (rock, sand, caliche etc.) sand/gravel Land Form(s) - mesa, bajada, wash etc. mesas

SIGNS OF HUMAN DISTURBANCE – NUMBER AND TYPES SEEN

☒ TIRE TRACKS ☐ SHOTGUN/RIFLE SHELLS ☐ BLADING ☒ RAVENS ☒ TRASH

☒ DUMP SITES ☒ HUMAN FOOTPRINTS ☐ DOG SIGN ☐ OTHER

INFORMATION ON TORTOISE SIGN

[illegible]

Sign #	Comments on conditions of shelter sites (active/inactive-why?), scat, shell remains, human disturbances.
	(2 mi) (continue on page 2 if necessary)

Worm w/109 → w/89: Sign 1. Good cond, fat. tortoise. No add. Sign near burrow. Photos 1-2

Udman 1984	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Udman 1984	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Udman 1984	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Udman 1984	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Udman 1984	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Udman 1984	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44																																																								

[illegible]

~~40000~~ 40000 PSI \rightarrow 100 27: No difference or sign abs (2-3 min)

[illegible]

APPENDIX F – DESERT TORTOISE LIVE ENCOUNTER FORMS



APPENDIX G – DESERT TORTOISE SHELL AND SKELETAL REMAINS FORMS

