

roads, or taken off-site for disposal in a permitted disposal site. A more detailed narrative description of construction is in Appendix A.

### **2.2.3 Areas of Construction Impact**

Areas of permanent impact would be those areas where the surface of the ground would be permanently disturbed. Specifically, new access roads and footings or anchors for tower, monopole, or crossing structures are areas that would be permanently impacted. Areas of temporary impact are areas where construction activity may take place but where restoration of the surface is possible. These areas include the work areas used to erect the towers, monopoles, or crossing structures; pull sites; laydown areas for the monopoles; and the trenches for the optical cables under the 500 kV transmission line at the substation. In some places, areas of temporary disturbance would overlap.

For this EA, the calculations of areas of impact or disturbance are based on an evaluation of preliminary plans and the assumptions stated in Appendix A. As plans are refined, the exact areas of impact may change. The assessment in this EA is intended to indicate the scale of possible impacts and serve as a basis for the general calculation of mitigation requirements. It should be noted that many areas of temporary disturbance, such as work areas around towers or poles and pull sites, would certainly overlap at least partially, so the total estimate for temporary impact area is overestimated and therefore conservative (worst-case).

The areas of impact, permanent and temporary, from construction of the proposed project are presented in Table 2.1. A more detailed discussion of how the areas were calculated and the assumptions on which they are based is provided in Appendix A.

### **2.2.4 Operations and Maintenance**

Maintenance and operations requirements include, but are not necessarily limited to, the following: (1) yearly maintenance grading of access roads; (2) insulator washing; (3) monthly aerial inspection of lines by helicopter; (4) monthly on-the-ground inspection of towers/poles and access roads by vehicle (pick-up truck); (5) air or ground inspection as needed after severe rain, lightning, wind, or sandstorms; (6) repair of tower or pole components (arms, foundations etc.) as needed; (7) repair or re-conductor of lines as needed; (8) replacement of insulators as needed; (9) painting pole or tower identification markings or corroded areas on towers or poles; and (10) response to emergency situations (outages, etc.) as needed to restore power.

For most of these operations, equipment could use the access roads and no significant additional disturbance would occur. Transmission line conductors may occasionally need to be upgraded or replaced over the life of the line. To accomplish this, the old cables are taken down and new cables are strung on the insulators in an operation similar to the