Appendix A

Specific Pygmy Rabbit Survey Procedures for Different Project Types

Appendix A.1

400 Meter X 400 Meter Pygmy Rabbit Survey Plot Survey Procedures

1 In addition to the survey procedures and data standards discussed in the Pygmy Rabbit Survey Protocol found in the *Wildlife Survey Protocol, Pinedale Field Office* the following survey procedures will apply to surveys conducted using the 400 meter by 400 meter survey method.

2 Survey plots will consist of nine transects. Each transect will be 400 meters long. Transects will be spaced 50 meters apart and will run in a north-south direction. Transects do not need to be physically laid out (for example: using string lines). These transects are used to guide surveyors in their survey efforts while still allowing them to survey all suitable habitat patches in the 400 meter survey plot. Although these transects are not extremely precise they provide a way to more rigorously replicate survey efforts than various other survey methods do.

3 Locations for the southwest (SW) corner of the survey plot will be provided by Bureau of Land Management (BLM) Pinedale Field Office (PFO) to the contracted surveyor. Data will be provided in Universal Transverse Mercator (UTM) North American Datum 1983 (NAD 83) zone 12 north.

4 Survey crews should navigate to the SW corner location provided by the BLM and then each surveyor should individually navigate to the beginning (southern end) of their prospective transect. To determine the starting point for each transect, sequentially add 50 meters to the easting value provided in the SW corner UTM coordinate. Similarly, the northern terminus of transects can be determined by adding 400 meters to the northing value provided in the SW corner UTM coordinate.

*For Example**:** the UTM coordinates for the SW corner location supplied by the BLM for a hypothetical survey location are (597341, 4705261); surveyor #1would begin his or her transect at this location. Surveyor #2 (the surveyor in charge of the next transect to the east) would begin his or her transect at (597391, 4705261), and surveyor #3 (the next surveyor to the east) would begin at (597441, 4705261). The terminus of each transect would be located respectively at (597341, 4705661) (597391, 4705661) and (597441, 4705661).*

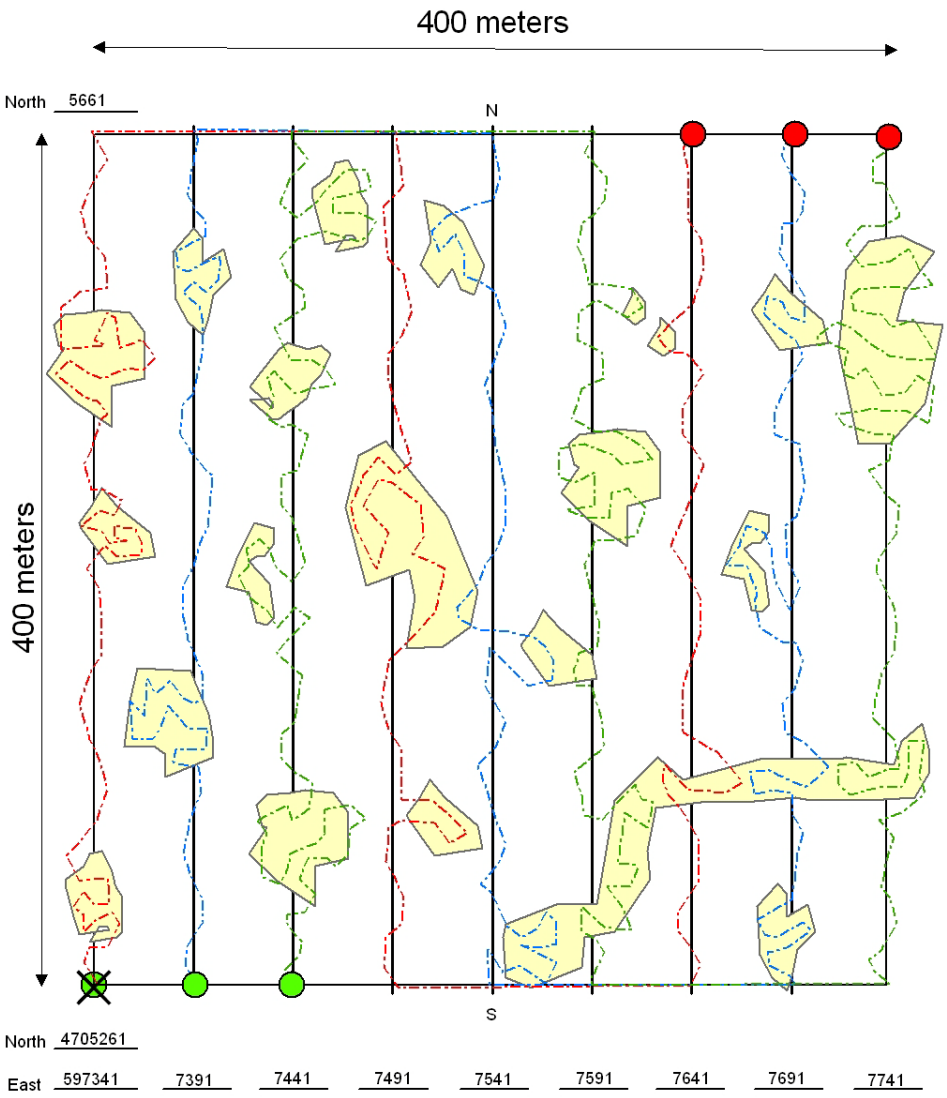
5 Once all surveyors have located the starting points of their transects and are ready to survey, the entire survey crew begins walking in a northward direction seeking out and surveying suitable habitat patches along or adjacent to their transects. While surveying, the surveyor will also need to periodically check his or her easting reading on his or her global positioning system (GPS) in order to stay on course. Similarly, all surveyors will need to check their northing values to determine when they are approaching or have reached the end of their transects. When the first set of transects have been surveyed, surveyors should shift east to the second set of transects and begin surveying in a southward direction (etc.).

For Example: Surveyor number 2 is surveying his transect and locates a patch of suitable habitat that is primarily located west of his transects. After surveying and recording pygmy locations in the patch he checks his easting value (597371) and discovers that he needs to head east (20 meters) to return to his transect.

6 Surveys can be completed using from 1 to 9 people but a survey crew of 3 people is suggested. Using 3 surveyors per crew allows for each crew member to survey 3 transects each and will most likely result in the entire crew finishing survey efforts at the same time. More surveyors may allow for a quicker survey but will also result in more variability in survey results.

7 A 50 meter buffer should be considered around the entire survey plot when surveying. If habitat patches exist north, south, east or west of the survey plot but within 50 meters of its boundaries those patches should also be surveyed. Do not survey beyond the 50 meter buffer.

The following survey schematic represents the survey method discussed in this document. Red, blue and green dashed lines represent survey tracks of three different surveyors. The green dots are locations in which surveyors would begin their survey efforts and the red dots represent locations where surveyors would finish their survey efforts. The yellow polygons serve as prime habitat patches located within the survey plot. The black X represents the location of the SW corner UTM supplied by the BLM.



Note 1: If surveying in a plot that has a uniform distribution of sagebrush where no obvious habitat patches are prominent, the surveyor's survey route should follow his or her transect more directly.

Note 2: If a survey plot contains a large block (for example: 1/2 of plot) of suitable habitat than the surveyors survey route should zigzag more frequently in an effort to more thoroughly survey the large patch. Once outside of the patch the less suitable habitat should be surveyed using a less frequent zigzagging pattern as portrayed in the schematic.

Appendix A.2
(Reserved for Future Survey Procedures)