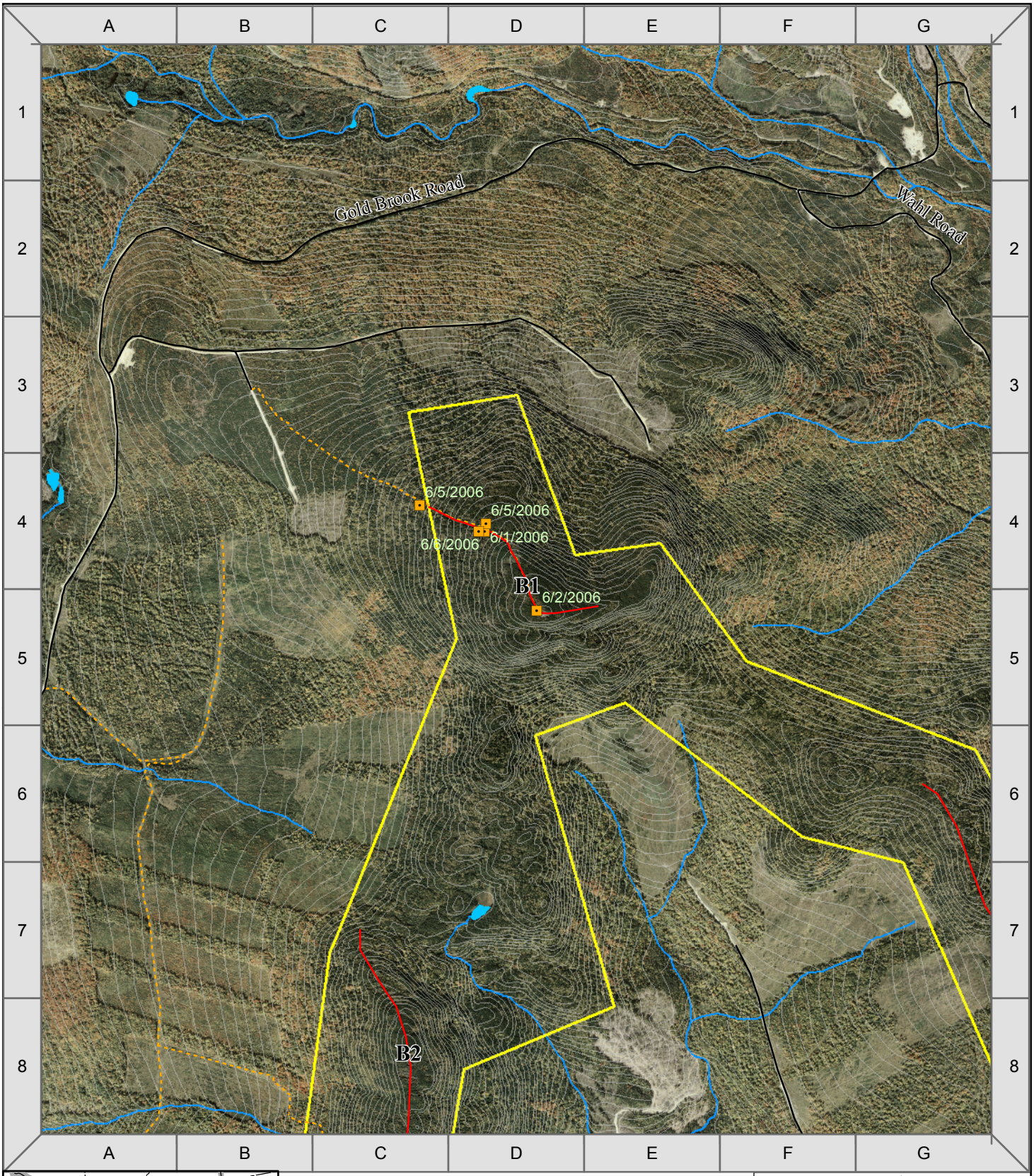
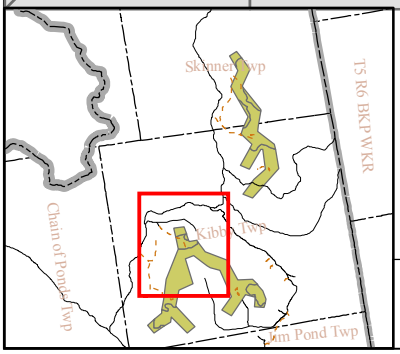




Bicknell's thrush locations during surveys
Transect
Roads
Trail
Project Area
Streams

Notes:

Orthophotography captured October 2, 2005 by J.W. Sewall Company; Hydrography, road, and political data from Maine OGIS

N

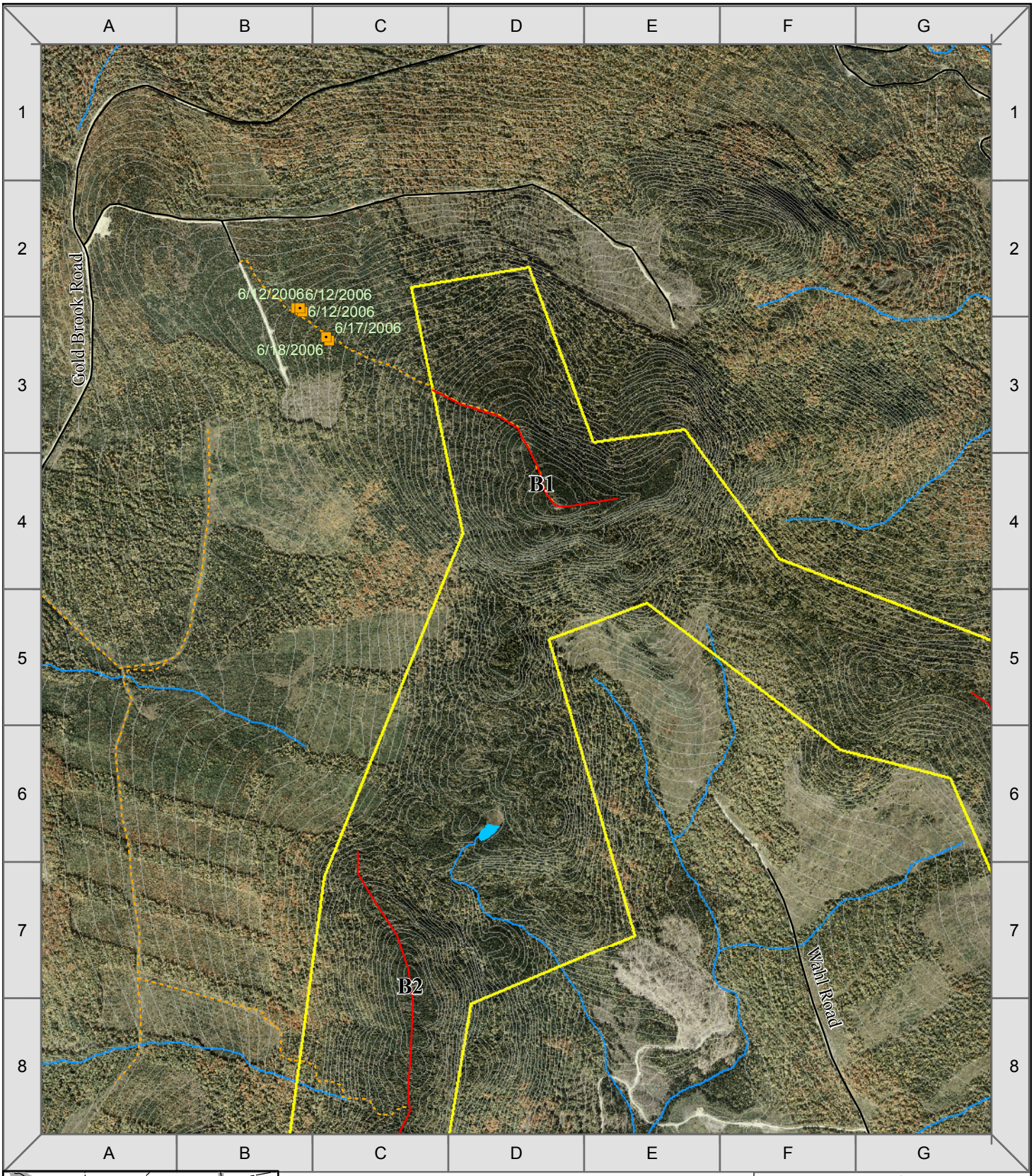
500

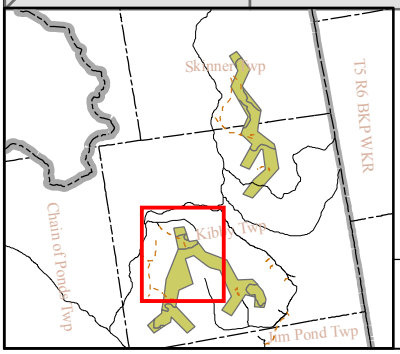
Meters

Figure 7-43

Kibby Wind Power Project

Bicknell's Thrush Occurence on Transects





- Bicknell's thrush locations during surveys
- Transect
- Roads
- Trail
- Project Area
- Streams

Notes:

Orthophotography captured October 2, 2005 by J.W. Sewall Company; Hydrography, road, and political data from Maine OGIS

N

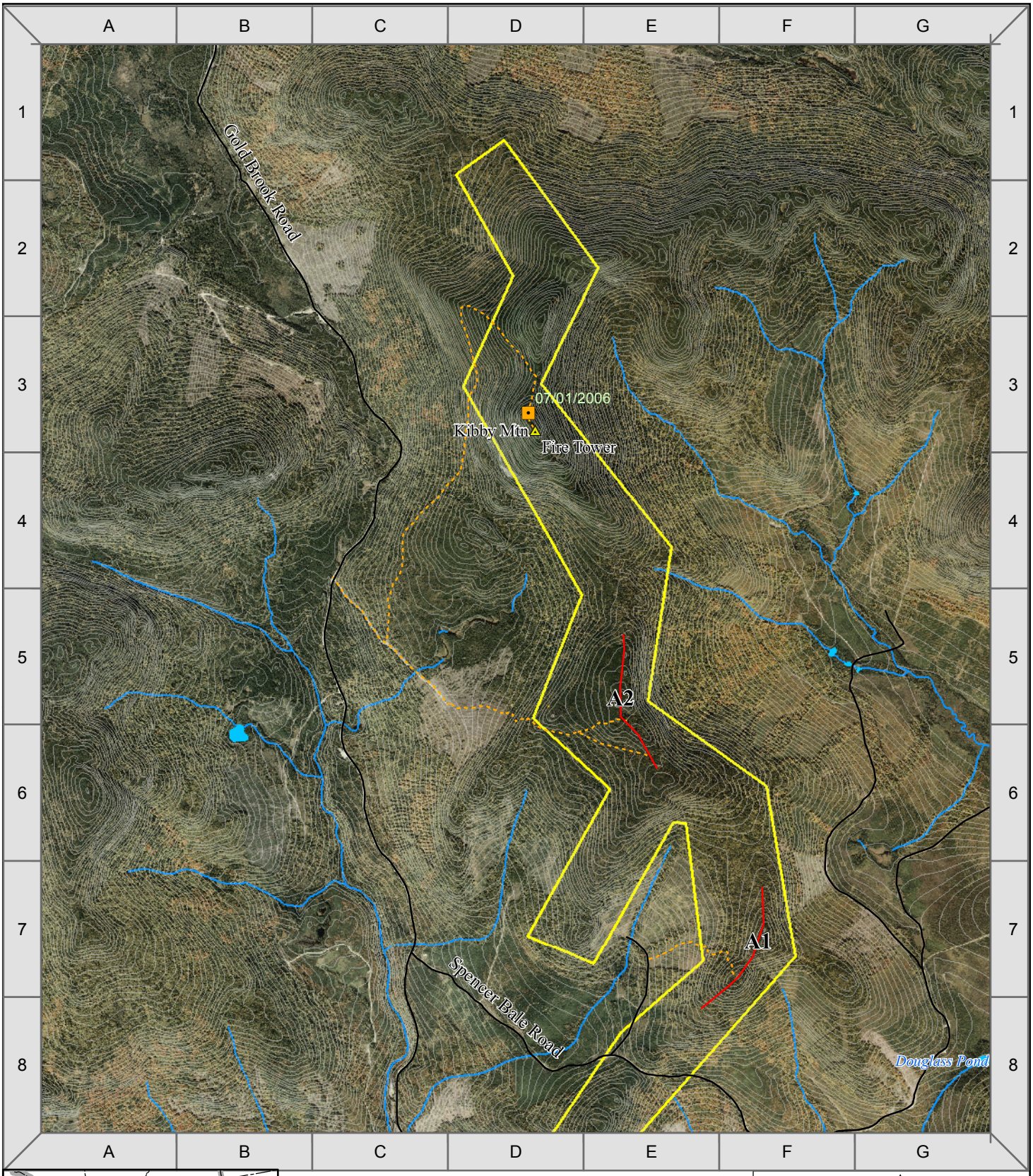
500

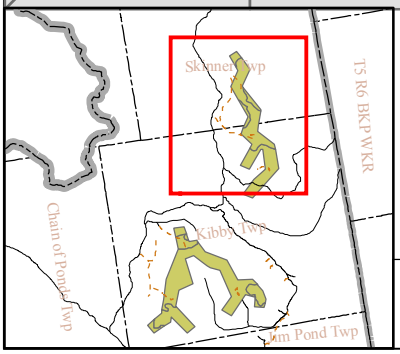
Meters

Figure 7-44

Kibby Wind Power Project

Thrush Occurence Outside of B-Series Transects





Legend

- Bicknell's thrush location
- Transect
- Project Area
- Roads
- Trail
- Streams

Notes:

Orthophotography captured October 2, 2005 by J.W. Sewall Company; Hydrography, road, and political data from Maine OGIS

780

Meters

Figure 7-45

Kibby Wind Power Project

A-Series Thrush Occurence Near Fire Tower

Estimate of Population Density Within Project Area

Few, if any, Bicknell's thrush were thought to nest within the project area during 2006 based on the breeding bird surveys. Individuals were observed at three points, or 9 percent of the survey points, on five occasions. Additionally, these individuals were only observed in the first week of June, early in the breeding season. Further investigation of this area found that there was only a small amount of suitable habitat in this area, and Bicknell's thrush were not detected in these areas again. Without detecting Bicknell's thrush again in this area, spot-mapping was not possible in accordance with Ralph et al. (1993) and USGS (2006) spot-mapping methodologies. These individuals could have been males attempting to attract females to less than prime Bicknell's thrush habitat, or wandering males briefly attempting to establish a home range. An explanation of several characteristics of the reproductive biology of the Bicknell's thrush may help to support these ideas. The male to female ratio for Bicknell's thrush is skewed toward males, with a sex ratio of 1.8:1 or greater, male to female (Rimmer et al. 2001; personal communication with Chris Rimmer, August 24, 2006). Male Bicknell's thrush occupy a large, shifting home range (unlike an established, defended territory), which is dependent upon the number and distribution of females in a given area. It is common (and maybe typical) for there to be multiple males per nesting female. In contrast to the male, the female has a fixed territory, the size of which is dependent on an area of suitable habitat large enough to support a nest of fledglings (personal communication with Chris Rimmer, August 24, 2006). Rimmer et al. (2006) found an average breeding home range for females at East Mountain, Vermont to be 5.43 ha ± 1.11 SE, and for males 11.99 ha ± 2.74 SE. The three potential areas of habitat found around the B1 transect were small patches, each a fraction of a hectare, and would not likely support a female Bicknell's thrush territory. For this reason, the few observations of individuals only early in the season suggest a lack of suitable breeding habitat for Bicknell's thrush.

Other Studies

As part of an unrelated study, Biodiversity Research Institute (BRI) attempted to capture and band Bicknell's thrush in Kibby and Skinner Townships during the summer of 2006. This was part of a regional project that BRI is involved with, the Appalachian Mountain Mercury Network, which has the objectives to: (1) characterize the mercury levels of forest songbirds and their prey; (2) better understand the synergy of elevated mercury levels and calcium deficiencies in acidified environments and potential negative impacts on songbirds and other invertivores; and (3) link findings to policy and management decision-making.

Along the trail to the B1 transect, in a 12 year old regenerating clear cut, two males and one female Bicknell's thrush in breeding condition were caught during the last week of June. These Bicknell's thrush were heard frequently during the walks up and down the mountain for surveys and were thought to be nesting in the approximately 30 hectare regenerating clearcut.

Additionally, four male and one female Bicknell's thrush in breeding condition were captured and banded near the fire tower on Kibby Mountain on July 1. At least six more were heard

calling along the trail within about a ½-mile from the fire tower. This is the same area where Bicknell's thrush were observed in the autumn of 2005 during project field surveys.

Neither of these areas is within the proposed Kibby Wind Power Project area, and are the same locations as those depicted on Figures 7-44 and 7-45.

Other Species of Concern within the Project Area

No federal-listed endangered or Maine state-listed species were found within the project area during the breeding bird survey.

The rusty blackbird (*Euphagus carolinus*), is a State Species of Special Concern and several were observed during the spring and summer at various locations along Gold Brook Road and the Wahl Road in Kibby Township. A rusty blackbird was also observed during August 2006 at a fen near transect B2. The rusty blackbird is a boreal species that breeds within forested wetland, scrub-shrub wetland and peat lands (MDIFW 2005). The rusty blackbird has declined more than 50 percent in the past 30 years (Rich et al. 2004). According to Maine's Comprehensive Wildlife Strategy, the rusty blackbird population is estimated at 1,907 ± 793 individuals in Maine. Some objectives for Maine include increasing the population by 100 percent, conserving breeding habitat, clarifying population trends and implementing long-term monitoring procedures (MDIFW 2005).

Results of Vegetation Survey

Vegetation surveys were completed at all 35 breeding bird points during the last week of July and first week of August following methods described by James and Shugart (1970). This methodology was developed specifically for making habitat measurements associated with estimating bird populations. TransCanada's consultants used this method to assess habitat characteristics for potential Bicknell's thrush habitat. Through review of literature and discussions with field biologists familiar with Bicknell's thrush habitat, vegetation data parameters to be considered included species and size class of all trees with in a plot, number and species of woody stems less than 3 inches in diameter at breast height, estimating canopy cover and ground cover, and estimated canopy height (Atwood et al. 1996); (personal communication with C. Rimmer, August 26, 2006); (personal communication with Tom Hodgman, May 2006).

The majority of points (65 percent) had more trees between 3 and 15 inch diameter at breast height (DBH), (a size often described as "pole timber"), than trees under 3 inches DBH. The most common conifer species were balsam fir (48.8 percent of all species counted) and red spruce (17.5 percent). Hardwood species were far fewer in overall abundance. The most common hardwood species were paper birch (8.2 percent), American mountain ash (0.008 percent), and yellow birch (0.004 percent). Snags accounted for 21.5 percent of the trees. The largest diameter tree was a yellow birch located at point B2-5, with a DBH of 27.7 inch.

The majority of the survey points can be characterized as one of three different forest communities. The most common forest community type identified among all points was the spruce–fir, wood sorrel, feathermoss forest (Gawler and Cutko 2004). This community was found at points along transects B2, B3, and B5, and at the lower elevations of B1 and A2. This community is dominated by both balsam fir and red spruce, though small white birch, yellow birch, and mountain ash may be associates in this community. Undergrowth in mature forest is sparse to absent, and few shrubs are present other than regeneration of spruce and fir in open canopy areas. The dominant herbs are wood sorrel, blue-bead lily, goldthread, starflower, and Canada dogwood. Ferns and mosses are also a dominant ground cover, and include wood ferns and feathermoss.

The second most common vegetation community identified along the transects was a spruce and northern hardwood forest (Gawler and Cutko 2004). This community is found along transect A1 and B4, and the lower elevation parts of B2 and B5. In this forest red spruce tends to be dominant, with some fir, paper birch, yellow birch, red maple, and mountain ash, often as younger trees. Also a sapling/scrub layer is typically well developed, and includes hobblebush and striped maple. Typical herbs are wood sorrel, starflower, and wood ferns.

The least common vegetation community found along the study transects is the fir-heartleaved birch subalpine forest (Gawler and Cutko 2004). This community is found along transect A1 and in the higher elevation parts of transect B1. Balsam fir as well as small paper birches and mountain ash dominate this forest. In areas that have experienced blow downs, fire, or landslides, a dense shrub layer consisting mostly of hobblebush and regenerating fir and mountain ash is usually present. The typical herbs present are blue-bead lily, wood sorrel, starflower, and wood ferns. The area of this community found at B1 is small and is not mapped by MNAP. The community found in the A1 transect was heavily harvested in the past and is not considered a good example of a subalpine fir community.

Several areas along these transects (especially B4, B5, and A2) have an open canopy, with a few spruce, fir or birch trees, and a scattered shrub-size fir and hobblebush. The ground cover is dominated by raspberry. The typical herbs are wood ferns, bracken fern, large-leaved goldenrod, and blue-bead lily.

Of the 35 points, only two points (B2-3 and B3-3) are thought to be representative of potential habitat for Bicknell's thrush. These two points had a high density of small diameter conifers. At point B2-3, 485 conifers under 9 inches DBH were counted within a tenth-acre plot. Of this, 414 stems (85 percent) were under 3 inches DBH and over 6 feet tall. The plot had 22 snags, or dead trees, most (59 percent) of which were under 3 inches DBH. At point B3-3, 285 conifers under 9 inches DBH were counted within the tenth-acre plot, and 188 stems (66 percent) were under 3 inches DBH and over 6 feet tall. This plot had 54 snags, with 47 percent under 3 inches DBH. No Bicknell's thrush were observed during the breeding bird surveys at these points, and these patches of dense habitat were estimated to be under an acre in size. Due to the small size of the patches and the lack of other suitable patches nearby, these representative habitats do not represent preferred habitat for Bicknell's thrush.

7.6.3.2 Potential Avian Impacts

Potential impacts to avian species include direct habitat loss as well as the potential for injury or mortality from collisions with the turbine structures. Based on the avian studies discussed above, no characteristics of the site would suggest that it would present a unique or unusual risk to avian species. Given the relatively small area the project encompasses within the broader region, the impacts of the project on avian species would be expected to be insignificant.

Because wind turbines are large and extend above the forest canopy, potential exists for wildlife collisions to occur. Bird collisions with tall structures, such as buildings and communications towers have been well documented, though few empirical studies documenting the magnitude or criteria needed for collisions to occur exist. What is known is that the larger reported collision events generally occur with taller structures and during periods of inclement weather.

Wildlife collisions with wind turbines first emerged as a concern in the western United States, when large numbers of raptor fatalities were reported at a wind power facility in California. West (2002) provided a summary of avian collisions with wind turbines, which is often calculated as the number of fatalities/turbine/year. Only one study was conducted in the eastern United States (in Pennsylvania) and fatality rates varied from 0 to 4.5 fatalities/turbine/year with most of the reported rates being less than two fatalities/turbine/year. Subsequent work has generally provided similar results with respect to avian fatalities at existing wind facilities.

Nighttime Migrants

Radar surveys conducted by Kenetech in 1994 and by TransCanada in the fall of 2005 and spring of 2006 to document bird and bat migration in the vicinity of the project area. No studies have been published that report the results of radar surveys conducted in conjunction with mortality surveys at existing wind power facilities. The lack of this type of information limits the ability of the radar survey data collected at the Kibby Wind Power Project to predict the number of bird or bat fatalities at proposed wind developments. However, that data does allow a qualitative assessment of bird or bat movements with respect to the proposed project, as well as a comparison to passage rates observed at other locations.

The details of the radar surveys are provided in Section 7.5.3.2. Passage rates observed at the Kibby Wind Power Project were comparable to those observed in similar studies across the Northeast, suggesting that this area does not experience uniquely high migration rates. In general, direct comparison of those data with other available surveys is limited. Movement characteristics of targets observed during the surveys indicate that birds and bats may be directing their migratory movements away from the upper ridgelines of mountains in the vicinity of the project. Some research suggests that bird migration may be affected by landscape features, such as coastlines, large river valleys, and some Northeastern mountain ranges. This has been documented for diurnally-migrating birds, such as raptors, but is not as well established for nocturnally migrating birds (Sielman et al. 1981; Bingham et al. 1982; Bruderer and Jenni 1990; Richardson 1998; Fortin et al. 1999; Williams et al. 2001).

During the fall 2005 study, mean nightly flight directions were similar between the two ridgeline sites (167 degrees at Kibby Mountain and 196 degrees at Kibby Range). In general, flight was in a southerly direction across the entire project area. There was night-to-night variation, particularly at Kibby Range. Overall, the nights with the highest passage rates were associated with flights to the south, while those with lower passage rates sometimes included a majority of flights in directions contrary to typical migration patterns. On these latter nights, winds were often moderate to strong and from a southerly direction.

The spring 2006 study determined that mean nightly flight directions were also similar between the three ridgeline sites (67 degrees at Kibby Mountain, 50 degrees at Kibby Range 1 and 86 degrees at Kibby Range 2). Overall, the nights with the highest passage rates were associated with flights to the northeast, while those with lower passage rates sometimes included a majority of flights in directions contrary to typical spring migration patterns.

During the fall 2005 study, the mean flight height ranged from 1,155 feet (352 m) above the radar at the Kibby Range site to 1,214 feet (370 m) at the Kibby Mountain site. Mean flight heights at the mobile valley sites ranged from 518 feet (158 m) to 1,624 feet (495 m) above radar height. No obvious relationship between flight height and weather was observed at any individual survey site; there appeared to be equal variation in flight heights between nights with clear weather or poor weather.

During the spring 2006 study, the mean flight height at ridgeline sites ranged from 1,207 feet (368 m) above the radar at the Kibby Mountain site to 1,351 feet (412 m) at the Kibby Range 1 site to 1,240 feet (378 m) at the Kibby Range 2 sites. As for the fall data, flight heights between nights were variable.

The overall mean percent of targets below turbine height 410 feet (125 m) was 16 percent at Kibby Mountain and 12 percent at Kibby Range. At Kibby Mountain, the nights with the largest percentage of targets flying lower over the ridgeline were typically associated with nightly passage rates that were well below the seasonal mean passage rate for the site. For example, on the night of September 29, 56 percent of the targets were flying below turbine height. The passage rate for that night; however, was the lowest documented at that site (109 ± 28 t/km/hr), even though conditions were favorable for migration. A similar trend was observed at Kibby Range. The two nights with the largest percentage of low-flying targets (October 3 and 7) were the two nights with the lowest passage rates. During the spring 2006 study, the overall mean percent of targets below 410 feet (125 m) – the top of the rotor swept area – was 14 percent at Kibby Mountain, 22 percent at Kibby Range 1, and 25 percent at Kibby Range 2.

The relatively high altitudes of flight across Kibby Mountain and Kibby Range is confirmed by general literature. During nighttime flights Bellrose (1971) found the majority of birds were between 500 and 1,500 feet (152 and 457 m) above the ground level, but on some nights the majority of birds observed were from 1,500 to 2,500 feet (457 to 762 m) above the ground. Radar studies have largely confirmed these observations, with the majority of noctural bird migration appearing to occur less than 1,650 to 2,300 feet (503 to 701 m) above the ground

(Able 1970; Alerstam 1990; Gauthreaux 1991; Cooper and Ritchie 1995). Studies that included altitudinal data from other proposed wind facilities in the Northeast are consistent with this as well. Cooper et al. (2004b) documented mean nightly flight altitudes at Mount Storm, West Virginia, between 700 and 2,500 feet (213 and 762 m), with a seasonal mean of 1,350 feet (412 m). In western New York, Cooper et al. (2004a) documented a mean flight altitude of 1,750 feet (534 m) with a small percentage (4 percent) of targets flying less than 400 feet (122 m) above the ground.

It is anticipated that many individuals, upon seeing the silhouette of the project area ridgelines, divert their movements to pass over valleys, along valley side slopes and over low ridgelines rather than use energy to gain further altitude. This would significantly reduce the risk of collision with wind turbines.

The radar studies did not identify passage rate or flight height characteristics that would suggest that unusually high mortality rates would be expected. Radar studies at Buffalo Ridge, Minnesota indicate that as many as 3.5 million birds per year may migrate over the wind development area there. The largest single mortality event reported at a U.S. wind plant was 14 nocturnal migrating passerines at two turbines at Buffalo Ridge, Minnesota, during spring migration (West 2002). Given the relatively small area that the project encompasses within the broader region, combined with the passage rates and flight heights observed, the impacts of the project on migrating avian species would be expected to be insignificant.

Breeding Songbirds

Breeding songbird populations will not be significantly impacted by placing wind turbines on ridgelines in the project area. Conditions for breeding songbirds on high-elevation ridges within the project area are harsh and, as a result, on average, there are only five species that made up almost 70 percent of breeding birds observed in 2006 surveys: 1) Swainson's thrush (26 percent); 2) winter wren (12.2 percent); 3) white-throated sparrow (11.8 percent); 4) yellow-rumped warbler (10.8 percent); and 5) dark-eyed junco (8.9 percent). These results are very similar to those found by Kenetech surveys in 1992, with all of these same species being represented in the most common species observed at that time. Other common species that were observed during the 2006 breeding bird surveys include the blackpoll warbler, golden-crowned kinglet, boreal chickadee, black-throated blue warbler, magnolia warbler, and hermit thrush.

For most breeding bird species found in the project area, placement of wind turbines on ridgelines in the Kibby Wind Power Project will not significantly impact local or regional populations. As described previously, wind turbines will be placed in relatively small openings, approximately 1 acre in size, including laydown area. Areas within this clearing that are not part of the turbine foundation or access will be allowed to revegetate. The only other clearing will be for access roads. For some species, the presence of openings along ridgelines will increase the number of suitable nesting locations. Included in this group may be white-throated sparrows,

dark-eyed juncos, purple finches, Lincoln's sparrows, yellow-rumped warbler, common yellowthroat, and the mourning warbler, which prefer shrubby growth.

Local populations of some of the species found during breeding bird surveys may be sensitive to habitat alteration since these populations occur in small numbers on the ridgetops. Three of these species, the blackpoll warbler, black-throated blue warbler, and ovenbird are neotropical migrants, spending their winters in central and northern South America, Central America, and the Indies. In the past two decades these areas have been subjected to widespread and unregulated timber harvesting, resulting in reduced suitable wintering habitat for a number of species. For some species, the combination of winter habitat loss in the neotropics and breeding habitat alteration in North America has proven to be detrimental. These three species, which may be sensitive to disturbance on the ridgelines are quite common in the project area. This is because suitable habitat associated with these species is common, widespread, and found at all elevations.

In addition to possible impacts from habitat loss or alteration, direct breeding songbird mortality from collisions with wind turbines may occur. However, these impacts are not expected to be significant for most species with moderate to strong populations. In a 3-year study of collision mortality in California, Orloff and Flannery (1992) found only 27 non-raptor mortalities due to collision with wind turbines and 11 due to collisions with wires. However, due to smaller sizes (than raptors) and higher scavenging rates, these numbers are likely an underestimation of actual mortality.

Given the relatively small area that the project encompasses within the broader region, the impacts of the project on breeding songbird populations would be expected to be insignificant.

Waterfowl

Impacts of wind turbines on breeding waterfowl are not expected to occur. The few waterfowl observations made during summer field investigations were made in locations below areas proposed for turbine development. Furthermore, the secretive nature of waterfowl during the summer months (during molts and raising young) would suggest that contact with turbines is highly unlikely.

As with migrating songbirds, migrating waterfowl may have more potential to encounter wind turbines than any resident, breeding waterfowl. While the magnitude of waterfowl migration activity over the project area was not measured, impacts are not expected to be significant. Western Maine is not within any major waterfowl migration corridors (Bellrose 1980). Therefore, use of the project area by migrating waterfowl is expected to be minimal. There is, however, some evidence that waterfowl do migrate through the area, with several flocks of Canada geese observed during the fall 2005 migration surveys. Of these flocks, one flock was observed crossing the eastern ridge of Kibby Range, approximately within the height of the rotor swept area. Waterfowl have keen vision, and would be expected to avoid collisions with the turbines as they travel through the area.

Raptors

Large home ranges and low densities associated with breeding raptor populations will significantly reduce the number of breeding raptors exposed to the turbines during the summer months. it is possible that breeding raptors may use the wind turbine clearings to hunt. However, it is expected that raptors which use clearcuts for nesting or hunting will remain in the more open mixed and hardwood forests lower on the slopes. Woodland hawks feed below the canopy where prey is more abundant which further limits their susceptibility to wind turbine collisions. Birds crossing the ridgelines while traveling between hunting areas may encounter wind turbines. The impact of this on raptors will depend on flight heights of individual birds. Raptors are good flyers with keen eyesight, and are expected to avoid collisions.

Some raptors migrating through the site have been observed at heights approximating those of the proposed wind turbines and, therefore, the potential for collisions exists. However, the majority of raptors traveling through the area do not cross through the proposed project development locations. Raptors flying through the project area observed in fall 2005 made up approximately 5 percent of all raptors observed. During the spring 2006 surveys, raptors flying through the project area made up approximately 45 percent of all raptors observed, but only 14 percent of those within the project area flew at a height approximating that of the rotor-swept area. Since raptors are good flyers with a keen sense of sight, it has been suggested that they are not likely to collide with a structure as prominent as a wind turbine (Olendorff and Lehman 1986). It is also possible that encounters with turbines may increase during time of low visibility due to inclement weather. However, migrating raptors tend to avoid flight during extremely foggy or cloudy days (Kerlinger 1989).

When considering impacts of the project on all bird populations, it must be noted that the Western Mountain area of Maine is only a small area in the broad Northeast region of the United States. The impacts of the Kibby Wind Power Project would be minimal and add little, if any, to cumulative losses of habitats or numbers of birds.

7.6.4 Fisheries

7.6.4.1 Existing Resources

No fisheries resources are present in the proposed wind turbine development areas on the ridgelines of Kibby Mountain and Kibby Range. These areas, however, are headwater areas of streams that support native and naturally reproducing brook trout fisheries. As such, protecting their water quality is a primary concern during the construction and operation of this project. Access roads to the ridgelines will traverse both intermittent and perennial streams, however, only limited new crossings of primarily small headwater, intermittent, or small perennial non-fishery streams will be necessary as a principal design criterion for access roads was use of existing roads and trails. Erosion control BMPs are an integral part of the development plan, and water quality in all streams within the project area is a paramount concern. There will be one collector transmission line crossing of Kibby Stream which will necessitate some clearing of tall

vegetation. This right-of-way will only be cleared and maintained to 60 feet (18.3 m) wide, and preservation and maintenance of stream-side buffers are planned for all streams that support brook trout (Salvelinus fontinalis) fisheries. The predominant fish species present in the streams in the project area are brook trout. Populations are natural and self-supporting with no state sponsored stocking of hatchery-reared fish occurring in these streams, with the exception of limited stocking of brook trout in the North Branch of the Dead River. The majority of fishing activity in the area is along the lower portions of the streams, well removed from the proposed turbine development area.

All streams encountered in the field during wetland surveys were characterized and mapped, with several parameters (width, depth, substrate) recorded. The majority of the streams found in the project area are small intermittent or perennial coldwater streams with a gravel/cobble/boulder substrate. Many of the streams found on or near the ridge tops in headwater areas are either seasonal or too small and too steep to support fisheries. The only streams identified as suitable to support fisheries, however, are on lower side slopes or valleys. The largest of these streams is Kibby Stream, which will be crossed by the collector line from Kibby Mountain. The other streams identified as potential fisheries streams are sufficient in size and gradient to support brook trout fisheries, and are tributaries to Kibby Stream. Brook trout have been observed in at least two tributary streams in the project area. These are in areas that are currently crossed by the Wahl Road and areas of the transmission right-of-way. The identification and location of stream crossings associated with new access roads and the electrical collector system are provided in Table 8-5.

7.6.4.2 Potential Fisheries Impacts

The predominant fish species in the small to medium sized streams in the project area are brook trout. Landlocked salmon (Salmo salar) are also reported to be resident in Kibby Stream and the North Branch of the Dead River. In addition, slimy sculpin (Cottus cognatus) and black-nosed dace (Rhinichthys atratulus) are likely present in most streams.

The larger named streams in the project area include Gold Brook, Kibby Stream, and the North Branch of the Dead River. Many other small unnamed streams occur in the project area, most of which are tributaries to one of the above streams.

As mentioned in the Section 9.4, some fishing activity does occur in the Kibby and Skinner Township area. The brook trout populations in the streams in this area are natural and self-supporting and limited stocking of hatchery raised trout occurs or is contemplated, according to the state resource agencies. Hurricane Pond is also a popular fishing destination in Kibby Township, and the fishery is supported by stocking of hatchery raised trout.

The proposed project is not expected to have any effect on fish populations in project area streams. Any newly constructed or existing stream crossings that are reconstructed will meet the most stringent standards for the control of erosion and minimization of sedimentation. These standards are described in Section 2.6. Erosion control will be a key part of the proposed road

and turbine construction plan. An additional measure that will help maintain water quality is the use of rock mattresses when constructing roads in areas with groundwater close to the surface. This measure will help ensure that groundwater remains in the ground, and is not collected in ditches that may concentrate flows, increase water temperature, and carry sediment to streams downslope.

Care was taken during the route selection process to avoid areas of high gradient and potentially erodible soils along streams. Most streams are crossed where they are low gradient. Buffer zones of vegetation maintained along the perennial streams will serve to prevent the erosion of stream banks. Taller vegetation, left in the buffer strips where power lines cross streams, will provide shade to streams. The utmost care will be taken in all phases of the construction of this project to protect streams from erosion and sedimentation.

In summary, the effective erosion and sedimentation control proposed in this application along with the careful location of power line and access road stream crossings and the proposed buffer strips along streams at power line crossings will assure that water quality and fish populations in the area will not be adversely affected by the proposed project.

7.7 References

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