APPENDIX A – DATA SUMMARIES

A-1. Land Ownership Summary, by Trail Length in Miles

A-2. Designated Trout Streams and Protected Tributaries with Crossing Structure Summary

A-3. Impaired Waters in the Vicinity of the NSST (Map)

A-4. Culvert Data Summary

A-5. Projected Trail Stabilization Summary Including Wetland Mitigation Needs

A-6a. Hill Grade and Projected Reroute Data Summary

A-6b. Hill Length Data Summary

A-7. Road and Trail Intersections with the NSST

A-8. Projected Trail Modifications - Estimated Cost Summary

NSST in Cook County.
## Appendix A-1: Land Ownership Summary, by Trail Length in Miles

**DNR, February 2006**

### Table: Land Ownership Summary

<table>
<thead>
<tr>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>6.84</td>
<td>0.14</td>
<td>0.30</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td><strong>7.59</strong></td>
</tr>
<tr>
<td>Private - Industry</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td><strong>1.00</strong></td>
</tr>
<tr>
<td>County</td>
<td>5.20</td>
<td>10.60</td>
<td>9.62</td>
<td>14.52</td>
<td>7.68</td>
<td>2.00</td>
<td>8.90</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td><strong>59.32</strong></td>
</tr>
<tr>
<td>State</td>
<td>1.28</td>
<td>2.10</td>
<td>0.39</td>
<td>1.01</td>
<td>4.40</td>
<td>4.10</td>
<td>8.40</td>
<td>0.30</td>
<td>1.50</td>
<td>1.00</td>
<td><strong>24.48</strong></td>
</tr>
<tr>
<td>Federal</td>
<td>3.68</td>
<td>13.62</td>
<td>12.85</td>
<td>17.70</td>
<td>2.80</td>
<td><strong>50.65</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL MILES</td>
<td><strong>13.32</strong></td>
<td><strong>13.20</strong></td>
<td><strong>10.15</strong></td>
<td><strong>15.53</strong></td>
<td><strong>15.76</strong></td>
<td><strong>6.40</strong></td>
<td><strong>17.80</strong></td>
<td><strong>13.62</strong></td>
<td><strong>13.15</strong></td>
<td><strong>19.20</strong></td>
<td><strong>4.91</strong></td>
</tr>
</tbody>
</table>

### Figure II-1. North Shore State Trail Land Ownership Summary (by Trail Length in Miles)

<table>
<thead>
<tr>
<th>County</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Louis</td>
<td>15.8</td>
</tr>
<tr>
<td>Lake</td>
<td>42.72</td>
</tr>
<tr>
<td>Cook</td>
<td>0.8</td>
</tr>
<tr>
<td>Sum</td>
<td>59.32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Federal</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>(USFS)</td>
<td>50.65</td>
</tr>
</tbody>
</table>

**Source:** DNR, Unpublished Data, 2006.
### Appendix A-2: Designated Trout Streams and Protected Tributaries with Crossing Structure Summary

**DNR, February 2006**

#### Designated Trout Stream

<table>
<thead>
<tr>
<th>ID</th>
<th>NAME</th>
<th>TRL_XING</th>
<th>SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E. Br. Amity Cr</td>
<td>steel bridge, 60 ft</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Trib. to Amity</td>
<td>none</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Trib. to Amity</td>
<td>none</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Trib. to Amity</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>S. Br. Lester R.</td>
<td>culverts, 24&quot; and 30&quot; diameters</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Middle R.</td>
<td>steel bridge, 30 ft</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>S. Br. Lester R.</td>
<td>wood bridge, 26 ft</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>W. Br. French R. (Harvey's)</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>French R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Big Tucker R.</td>
<td>wood bridge, 50 ft</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>E. Br. Knife R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>W. Br. Knife R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Little W. Br. Knife R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>E. Br. Knife R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Trib. to E. Br. Knife R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Trib. to Stewart R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Trib. to Stewart R.</td>
<td>culvert, 30 ft</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Trib. to Stewart R.</td>
<td>wood bridge, 16 ft</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>E. Br. Knife R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Trib. to E. Br. Knife R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Encampment R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Glossberry R.</td>
<td>steel bridge, 70 ft</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>Dago R.</td>
<td>steel bridge, 50 ft</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Trib to Dago R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>Trib to Dago R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>Trib to Mink R.</td>
<td>culvert, 60&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>Trib. to Mink R.</td>
<td>steel bridge, 12 ft</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>Mink R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>Trib. to Mink R.</td>
<td>culvert, 18&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>Mink R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>Stoney R.</td>
<td>steel bridge, 40 ft</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>Spruce R.</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>Trib to Spruce R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>Burn Cr.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>Trib to Burn Cr.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>W. Br. Split Rock R.</td>
<td>culvert, 60&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>Trib to E. Br. Split Rock R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>38</td>
<td>E. Br. Split Rock R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>39</td>
<td>Trib to另外 Br. Split Rock R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>Trib. to另外 Br. Split Rock R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>Trib. to另外 Br. Split Rock R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>42</td>
<td>Trib. to另外 Br. Split Rock R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>43</td>
<td>Trib. to另外 Br. Split Rock R.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>44</td>
<td>Trib. to Big 39 (Little Big 39)</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>Big 39 R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>46</td>
<td>Little Big 39 R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>47</td>
<td>E. Br. Beaver R.</td>
<td>steel bridge, 20 ft</td>
<td>1</td>
</tr>
<tr>
<td>48</td>
<td>Little 43 Cr.</td>
<td>culvert, 18&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>Ricketts Cr.</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>Hookamin Cr.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>51</td>
<td>Trib to Hookamin</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>52</td>
<td>Trib to Hookamin</td>
<td>culvert, 12&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>53</td>
<td>W. Br. Baptism R.</td>
<td>steel bridge, 12 ft</td>
<td>1</td>
</tr>
<tr>
<td>54</td>
<td>Tikkanen Cr. (Sec 8)</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>55</td>
<td>Trib to E. Baptism</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>56</td>
<td>Evagg Cr.</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>57</td>
<td>Schoolhouse Cr.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>58</td>
<td>E. Br. Baptism R.</td>
<td>steel bridge, 60 ft</td>
<td>1</td>
</tr>
<tr>
<td>59</td>
<td>Rock Cut Cr. (Manitou Trib)</td>
<td>wood bridge, 24 ft</td>
<td>1</td>
</tr>
<tr>
<td>60</td>
<td>Manitou R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>61</td>
<td>Powdler Cr.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>62</td>
<td>S. Caribou R.</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>63</td>
<td>Middle Caribou R.</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>64</td>
<td>N. Caribou R.</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>65</td>
<td>Amenda Cr.</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>66</td>
<td>Two Island R.</td>
<td>culvert, 30&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>67</td>
<td>Stumble Cr.</td>
<td>culvert, 24&quot; and 36&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>68</td>
<td>Cross R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>69</td>
<td>Headstream R.</td>
<td>USFS Culvert</td>
<td>1</td>
</tr>
<tr>
<td>70</td>
<td>Blind Temperance R.</td>
<td>USFS Culvert</td>
<td>1</td>
</tr>
<tr>
<td>71</td>
<td>Temperance R.</td>
<td>USFS Bridge</td>
<td>1</td>
</tr>
<tr>
<td>72</td>
<td>Pippal R.</td>
<td>USFS Bridge</td>
<td>1</td>
</tr>
<tr>
<td>73</td>
<td>Lox R.</td>
<td>USFS Culvert</td>
<td>1</td>
</tr>
<tr>
<td>74</td>
<td>Trib to Lox R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>75</td>
<td>Fat Cr.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
<tr>
<td>76</td>
<td>Mustoone Cr.</td>
<td>USFS Bridge</td>
<td>1</td>
</tr>
<tr>
<td>77</td>
<td>Thunder Bridge</td>
<td>USFS Bridge</td>
<td>1</td>
</tr>
<tr>
<td>78</td>
<td>Little Devil Track R.</td>
<td>culvert, 24&quot; diameter</td>
<td>1</td>
</tr>
</tbody>
</table>

**Sources:** DNR, 2006; and MPCA, Draft 2006 TMDL List, TMDL Pollutant Data, Lake Superior Basin.
Appendix A-3: Impaired Waters in the Vicinity of the NSST

LEGEND - Impaired Waters
- North Shore State Trail
- Superior Hiking Trail
- Impaired Water - Streams (TMDL)

Protected Waters
- Designated Trout Stream
- Protect Notably Designated Trout Stream
- Lake
- State Park Statutory Boundaries


2/21/06
### Appendix A-4: Culvert Data Summary

#### Total Culvert Counts

<table>
<thead>
<tr>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of EXISTING C</td>
<td>43</td>
<td>23</td>
<td>34</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>31</td>
<td>26</td>
<td>24</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Count of NEEDS REPL</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Count of CULVERT RE</td>
<td>49</td>
<td>14</td>
<td>6</td>
<td>41</td>
<td>31</td>
<td>20</td>
<td>22</td>
<td>32</td>
<td>17</td>
<td>7</td>
<td>239</td>
</tr>
<tr>
<td><strong>Total per Section</strong></td>
<td>94</td>
<td>38</td>
<td>40</td>
<td>58</td>
<td>57</td>
<td>25</td>
<td>58</td>
<td>56</td>
<td>61</td>
<td>32</td>
<td>27</td>
</tr>
</tbody>
</table>

#### Existing Culverts per Section

<table>
<thead>
<tr>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of EXISTING C</td>
<td>12</td>
<td>38</td>
<td>17</td>
<td>7</td>
<td>21</td>
<td>15</td>
<td>16</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>141</td>
</tr>
<tr>
<td>Count of NEEDS REPL</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>Count of CULVERT RE</td>
<td>12</td>
<td>48</td>
<td>13</td>
<td>5</td>
<td>34</td>
<td>28</td>
<td>20</td>
<td>21</td>
<td>31</td>
<td>17</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Existing Culverts, Needs Replacement

<table>
<thead>
<tr>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of EXISTING C</td>
<td>12</td>
<td>38</td>
<td>17</td>
<td>7</td>
<td>21</td>
<td>15</td>
<td>16</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>141</td>
</tr>
<tr>
<td>Count of NEEDS REPL</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>Count of CULVERT RE</td>
<td>12</td>
<td>48</td>
<td>13</td>
<td>5</td>
<td>34</td>
<td>28</td>
<td>20</td>
<td>21</td>
<td>31</td>
<td>17</td>
<td>6</td>
</tr>
</tbody>
</table>

*Sections 3 and 6 - no culverts need replacement

#### New Culvert Needed

<table>
<thead>
<tr>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of CULVERT RE</td>
<td>48</td>
<td>13</td>
<td>34</td>
<td>28</td>
<td>20</td>
<td>21</td>
<td>31</td>
<td>17</td>
<td>6</td>
<td>10</td>
<td>223</td>
</tr>
<tr>
<td>Count of CULVERT RE</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>49</td>
<td>14</td>
<td>6</td>
<td>41</td>
<td>31</td>
<td>20</td>
<td>22</td>
<td>32</td>
<td>17</td>
<td>7</td>
<td>239</td>
</tr>
</tbody>
</table>

*Section 6 - no new culverts needed

### Culverts needed (New + replacements)

| TOTAL | 51 | 15 | 6 | 44 | 38 | 0 | 27 | 30 | 37 | 20 | 8 | 276 |

## Appendix A-5: Projected Trail Stabilization Summary Including Wetland Mitigation Needs

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culvert Required</td>
<td>Dago to #3</td>
<td>1,650</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,650</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Old Corduroy Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>210</td>
<td></td>
</tr>
<tr>
<td>Wetland, Mitigation Required</td>
<td></td>
<td>3,195</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7,560</td>
<td></td>
</tr>
<tr>
<td>Wetland, Mitigation Required, Encampment R.</td>
<td></td>
<td>375</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>375</td>
<td></td>
</tr>
<tr>
<td>Wetland, Mitigation Required, old RR tie brid</td>
<td></td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>(blank)</td>
<td></td>
<td>4,665</td>
<td>1,125</td>
<td>525</td>
<td>225</td>
<td>1,215</td>
<td>4,065</td>
<td>3,030</td>
<td>1,350</td>
<td>1,425</td>
<td>17,625</td>
<td></td>
</tr>
<tr>
<td>Wetland, Mitigation Required, needs 3 Culverts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Culvert</td>
<td>43 cr., holes in trail</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>(blank)</td>
<td>2,250</td>
<td>855</td>
<td>60</td>
<td>210</td>
<td>3,675</td>
<td>1,155</td>
<td></td>
<td></td>
<td></td>
<td>8,205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hill</td>
<td>South Kowolski hill, reroute needed</td>
<td>225</td>
<td>90</td>
<td>300</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(blank)</td>
<td>Adjacent to beaver pond</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>(blank)</td>
<td>Wetland, Mitigation Required</td>
<td>1,200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,200</td>
<td></td>
</tr>
<tr>
<td>(blank)</td>
<td></td>
<td>3,075</td>
<td>1,215</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,075</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>15,210</td>
<td>3,285</td>
<td>735</td>
<td>6,390</td>
<td>1,560</td>
<td>10,890</td>
<td>13,260</td>
<td>3,780</td>
<td>2,865</td>
<td>19,500</td>
<td>59,925</td>
</tr>
</tbody>
</table>

### Mitigation Required

<table>
<thead>
<tr>
<th>Sum of linear feet</th>
<th>Mitigation</th>
<th>4,395</th>
<th>0</th>
<th>150</th>
<th>4,740</th>
<th>390</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>9,675</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres (approximate, based on avg 20 ft width)</td>
<td>2</td>
<td>0.07</td>
<td>2.2</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.4</td>
</tr>
<tr>
<td>Acres Replacement (ratio 1:1.5)</td>
<td>3</td>
<td>0.1</td>
<td>3.26</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.6</td>
</tr>
<tr>
<td>Count of sites</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>17</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>27</td>
</tr>
</tbody>
</table>

### Source:

### Estimated Cost Summaries for Treadway Stabilization (Fill)

<table>
<thead>
<tr>
<th>Section</th>
<th>Length D&amp;C (Ft)</th>
<th>D&amp;C Cost: $2/Fl</th>
<th>Length Haul (Ft)</th>
<th>Haul Cost: $3.20/Fl</th>
<th>Wetland Fill*</th>
<th>Wetland Cost $11/Fl</th>
<th>Total Length (Ft)</th>
<th>Sub-Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6,489</td>
<td>$13,000</td>
<td>4,326</td>
<td>$13,800</td>
<td>4,395 (2.0 Acres)</td>
<td>$48,300</td>
<td>15,210</td>
<td>$75,100</td>
</tr>
<tr>
<td>2</td>
<td>1,971</td>
<td>$3,900</td>
<td>1,314</td>
<td>$4,200</td>
<td>150 (0.07 Acres)</td>
<td>$1,700</td>
<td>4,025</td>
<td>$5,725</td>
</tr>
<tr>
<td>3</td>
<td>441</td>
<td>$900</td>
<td>3,434</td>
<td>$11,000</td>
<td>4,740 (2.2 Acres)</td>
<td>$52,100</td>
<td>13,260</td>
<td>$76,200</td>
</tr>
<tr>
<td>4</td>
<td>990</td>
<td>$2,000</td>
<td>660</td>
<td>$2,100</td>
<td>390 (0.18 Acres)</td>
<td>$1,400</td>
<td>8,205</td>
<td>$9,600</td>
</tr>
<tr>
<td>5</td>
<td>702</td>
<td>$1,400</td>
<td>468</td>
<td>$1,500</td>
<td>3675 (1.85 Acres)</td>
<td>$4,300</td>
<td>21,045</td>
<td>$15,675</td>
</tr>
<tr>
<td>6</td>
<td>6,534</td>
<td>$13,000</td>
<td>4,356</td>
<td>$13,900</td>
<td>0</td>
<td>0</td>
<td>10,890</td>
<td>$26,900</td>
</tr>
<tr>
<td>7</td>
<td>7,956</td>
<td>$15,900</td>
<td>5,304</td>
<td>$17,000</td>
<td>0</td>
<td>0</td>
<td>13,260</td>
<td>$32,900</td>
</tr>
<tr>
<td>8</td>
<td>2,268</td>
<td>$4,500</td>
<td>1,512</td>
<td>$4,800</td>
<td>0</td>
<td>0</td>
<td>3,780</td>
<td>$9,300</td>
</tr>
<tr>
<td>9</td>
<td>1,719</td>
<td>$3,400</td>
<td>1,146</td>
<td>$3,700</td>
<td>0</td>
<td>0</td>
<td>2,865</td>
<td>$7,100</td>
</tr>
<tr>
<td>10</td>
<td>1,176</td>
<td>$2,300</td>
<td>780</td>
<td>$2,500</td>
<td>0</td>
<td>0</td>
<td>1,950</td>
<td>$4,800</td>
</tr>
<tr>
<td>Totals</td>
<td>30,240</td>
<td>$60,300</td>
<td>23,300</td>
<td>$74,500</td>
<td>3675 (4.4 Acres)</td>
<td>$106,400</td>
<td>63,215</td>
<td>$241,200</td>
</tr>
</tbody>
</table>

* Wetland Acres estimated using average trail width of 20 Ft. Cost estimates rounded for reporting purposes.

### Appendix A-6a: Hill Grade and Projected Reroute Data Summary

**Count of HILL FT**

<table>
<thead>
<tr>
<th>HILL GRADE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>14</td>
<td>36</td>
<td>7</td>
<td>5</td>
<td>21</td>
<td>5</td>
<td>25</td>
<td>16</td>
<td>27</td>
<td>15</td>
<td>6</td>
<td>177</td>
</tr>
</tbody>
</table>

**Potential reroutes estimated by percentage:**

<table>
<thead>
<tr>
<th>HILL GRADE</th>
<th>10-14% (20% reroute)</th>
<th>15-19% (50% reroute)</th>
<th>&gt;20% (80% reroute)</th>
<th>Reroute estm</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14%</td>
<td>2</td>
<td>1.4</td>
<td>0.2</td>
<td>15</td>
</tr>
<tr>
<td>15-19%</td>
<td>1.5</td>
<td>10</td>
<td>2.5</td>
<td>37</td>
</tr>
<tr>
<td>&gt;20%</td>
<td>0.8</td>
<td>7.2</td>
<td>0.8</td>
<td>22.4</td>
</tr>
<tr>
<td>TOTAL per Section</td>
<td>4.3</td>
<td>18.6</td>
<td>3.5</td>
<td>74.4</td>
</tr>
</tbody>
</table>

## Appendix A-6b: Hill Length Data Summary

### Data

<table>
<thead>
<tr>
<th>SECTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>105</td>
<td>1200</td>
<td></td>
<td>375</td>
<td></td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td>1740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1005</td>
<td>675</td>
<td></td>
<td></td>
<td>390</td>
<td>990</td>
<td>75</td>
<td></td>
<td>600</td>
<td>3735</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>90</td>
<td>75</td>
<td>105</td>
<td></td>
<td>195</td>
<td>1365</td>
<td>510</td>
<td>555</td>
<td>90</td>
<td>3915</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>180</td>
<td>600</td>
<td>225</td>
<td>390</td>
<td>250</td>
<td>780</td>
<td></td>
<td>240</td>
<td>270</td>
<td>2935</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>705</td>
<td>480</td>
<td>75</td>
<td>600</td>
<td>850</td>
<td>1230</td>
<td>195</td>
<td>1470</td>
<td>825</td>
<td>360</td>
<td>6790</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>90</td>
<td>420</td>
<td>90</td>
<td></td>
<td>330</td>
<td>600</td>
<td></td>
<td>540</td>
<td>915</td>
<td>2985</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td>1</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>225</td>
<td>330</td>
<td>390</td>
<td>225</td>
<td>300</td>
<td>1200</td>
<td>75</td>
<td>345</td>
<td>3090</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>5</td>
<td>1</td>
<td>4</td>
<td></td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>825</td>
<td>105</td>
<td>780</td>
<td>270</td>
<td>150</td>
<td>435</td>
<td>1110</td>
<td>3675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>60</td>
<td>1005</td>
<td>90</td>
<td>450</td>
<td>90</td>
<td>435</td>
<td>90</td>
<td>75</td>
<td>720</td>
<td>2205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td>120</td>
<td>75</td>
<td>525</td>
<td>240</td>
<td>150</td>
<td></td>
<td>1110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>420</td>
<td>90</td>
<td></td>
<td>1000</td>
<td>1800</td>
<td>90</td>
<td></td>
<td>3400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>450</td>
<td></td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td>390</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>330</td>
<td>1110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>105</td>
<td>500</td>
<td></td>
<td>180</td>
<td></td>
<td></td>
<td>785</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td>120</td>
<td>150</td>
<td></td>
<td>270</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td>450</td>
<td></td>
<td></td>
<td>450</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>225</td>
<td></td>
<td></td>
<td>90</td>
<td></td>
<td>315</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Count of HILL_FT: 14,367,525,240,150,1110
Total Sum of HILL_FT: 2610,5550,900,690,5550,2750,8340,2775,4770,2385,2790,39110

### Grade Range, Sum of Hill Length (Feet)

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>10-14%</th>
<th>15-19%</th>
<th>&gt;20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum (ft)</td>
<td>2085</td>
<td>1830</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>150</td>
<td>2580</td>
<td>705</td>
</tr>
<tr>
<td></td>
<td>390</td>
<td>3165</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>1260</td>
<td>2385</td>
<td>390</td>
</tr>
<tr>
<td></td>
<td>1200</td>
<td>1800</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>1200</td>
<td>1800</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>1200</td>
<td>1800</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>1200</td>
<td>1800</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>1200</td>
<td>1800</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>1200</td>
<td>1800</td>
<td>300</td>
</tr>
</tbody>
</table>

### Grade Range, Average Hill Length (Feet)

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>10-14%</th>
<th>15-19%</th>
<th>&gt;20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum (ft)</td>
<td>5550</td>
<td>900</td>
<td>690</td>
</tr>
<tr>
<td></td>
<td>5550</td>
<td>900</td>
<td>690</td>
</tr>
<tr>
<td></td>
<td>5550</td>
<td>900</td>
<td>690</td>
</tr>
<tr>
<td></td>
<td>5550</td>
<td>900</td>
<td>690</td>
</tr>
<tr>
<td></td>
<td>5550</td>
<td>900</td>
<td>690</td>
</tr>
</tbody>
</table>

### Grade Range, Average Hill Length (Feet)

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>10-14%</th>
<th>15-19%</th>
<th>&gt;20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum (ft)</td>
<td>2750</td>
<td>2750</td>
<td>2750</td>
</tr>
<tr>
<td></td>
<td>2750</td>
<td>2750</td>
<td>2750</td>
</tr>
<tr>
<td></td>
<td>2750</td>
<td>2750</td>
<td>2750</td>
</tr>
<tr>
<td></td>
<td>2750</td>
<td>2750</td>
<td>2750</td>
</tr>
</tbody>
</table>

### Length avg sum per segment

|     | 483.5 | 517 | 336 | 280 | 579.1 | 1167 | 1501.7 | 530.3 | 530.7 | 477.3 | 1415 |

### MnDOT Road Coverage

<table>
<thead>
<tr>
<th>Road Name</th>
<th>St. Louis</th>
<th>Lake</th>
<th>Cook</th>
<th>Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>W Tischer Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Jean Duluth Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>N Tischer Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Normanna Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Fox Farm Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Laine Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Riley Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Westover Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Rd 302</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Hwy 2</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Hwy 3</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>County Hwy 4</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>National Forest Hwy 15</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Heffelfinger Rd</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Hwy 6</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Hwy 7</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Hwy 8</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Rd 45</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>County Rd 64</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Gunflint Trail</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

### USFS Road Coverage

<table>
<thead>
<tr>
<th>Road Name</th>
<th>Allows OHV</th>
<th>Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH 11 SPUR 1109</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>CARIBOU RIVER</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>BLIND CREEK</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>MUNKER LAKE</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>PIKE LAKE</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>PIKE LAKE SPUR A</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>PIKE LAKE SPUR D</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>BALLY CREEK</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>HONEYMOON TRAIL</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>TAIT RIVER GRAVEL PIT</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>CROSS RIVER 600</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>MISTLETOE</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>BARKER LAKE</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>SCHROEDER TOTE ROAD</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>TWO ISLAND RIVER</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>TEMPERANCE RIVER</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>WRINGER LAKE</td>
<td>yes</td>
<td>1</td>
</tr>
</tbody>
</table>

### Trails - GIA Snowmobile Trails

<table>
<thead>
<tr>
<th>Trail Name</th>
<th>Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duluth East</td>
<td>1</td>
</tr>
<tr>
<td>Gooseberry Spur</td>
<td>1</td>
</tr>
<tr>
<td>Gunflint Trail and Spurs</td>
<td>2</td>
</tr>
<tr>
<td>Lutsen Access</td>
<td>3</td>
</tr>
<tr>
<td>Mooserun (GIA ATV)</td>
<td>1</td>
</tr>
<tr>
<td>Moosewalk (GIA ATV)</td>
<td>2</td>
</tr>
<tr>
<td>Pequaywan-Hoyt Lakes</td>
<td>1</td>
</tr>
<tr>
<td>Red Dot (GIA ATV)</td>
<td>1</td>
</tr>
<tr>
<td>Reservoir Riders</td>
<td>1</td>
</tr>
<tr>
<td>Sawtooth</td>
<td>2</td>
</tr>
<tr>
<td>Toffte Lynx</td>
<td>2</td>
</tr>
<tr>
<td>Tomahawk</td>
<td>1</td>
</tr>
<tr>
<td>Two Harbors Corridor</td>
<td>1</td>
</tr>
</tbody>
</table>

### Cross Country Ski Trails

<table>
<thead>
<tr>
<th>Trail Name</th>
<th>Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugarbush GIA Trail</td>
<td>1</td>
</tr>
<tr>
<td>Non-GIA XC Ski Trail (Cook County)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Sources:** USFS - Superior National Forest digital road and trail data; MnDOT public road data; DNR trail data, 2006.
Treadway Stabilization includes ditch and crown fill, haul-in fill and wetland fill.

* Cost estimates may change considerably depending on specifications of an actual project. Further cost analysis is included for each identified section of trail to provide a better understanding of how these costs are associated to the trail.

**Source:** DNR, Unpublished Data, 2006.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15,300</td>
<td>7,200</td>
<td>5,300</td>
<td>75,100</td>
<td>39,600</td>
<td>$142,500</td>
</tr>
<tr>
<td>2</td>
<td>4,500</td>
<td>2,100</td>
<td>20,900</td>
<td>8,100</td>
<td>0</td>
<td>$35,600</td>
</tr>
<tr>
<td>3</td>
<td>1,800</td>
<td>900</td>
<td>2,500</td>
<td>13,600</td>
<td>1,400</td>
<td>$20,200</td>
</tr>
<tr>
<td>4</td>
<td>13,200</td>
<td>6,300</td>
<td>2,100</td>
<td>56,200</td>
<td>42,700</td>
<td>$120,500</td>
</tr>
<tr>
<td>5</td>
<td>11,400</td>
<td>5,400</td>
<td>13,700</td>
<td>7,200</td>
<td>3,500</td>
<td>$41,200</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>7</td>
<td>8,100</td>
<td>3,800</td>
<td>36,500</td>
<td>26,900</td>
<td>0</td>
<td>$75,300</td>
</tr>
<tr>
<td>8</td>
<td>9,000</td>
<td>4,300</td>
<td>9,100</td>
<td>32,900</td>
<td>0</td>
<td>$55,300</td>
</tr>
<tr>
<td>9</td>
<td>11,100</td>
<td>5,300</td>
<td>16,000</td>
<td>9,300</td>
<td>0</td>
<td>$41,700</td>
</tr>
<tr>
<td>10</td>
<td>6,000</td>
<td>2,800</td>
<td>6,300</td>
<td>7,100</td>
<td>0</td>
<td>$22,200</td>
</tr>
<tr>
<td>11</td>
<td>2,400</td>
<td>1,100</td>
<td>14,200</td>
<td>4,800</td>
<td>0</td>
<td>$22,500</td>
</tr>
</tbody>
</table>

**TOTALS:** $82,800 $39,200 $126,600 $241,200 $87,200 $577,000