

# Planning Aids and Considerations

## Planning aids

- A. Topography maps
- B. Air photos
- C. Plat books
- D. Forest management guidebook
- E. Landowner/resource manager
- F. Soils map
- G. Protected waters maps
- H. Visual quality maps

## Control points and road closure

- A. Selecting an access point
- B. Determining the destination (landing)
- C. Physical features (control points) to either tie into the road or locations to avoid
- D. Adverse vs. favorable grades and approach length to an adverse grade
- E. Avoid curves at top and bottom, especially on the grade

## Economic considerations

- A. Design considerations (e.g., managing water, going around vs. over wetlands or streams)
- B. Volume accessed
- C. Safety (e.g., curves on hills, winter considerations)
- D. Tradeoff of spending money upfront vs. for maintenance

## Other important considerations

- A. Safety (e.g., curves on hills, winter considerations)
- B. Planning with the adjacent landowner(s) and in adjacent areas to minimize road length and impacts; long-term planning
- C. Logger's equipment needs and space requirements
- D. Managing water
- E. Daylighting the road
- F. Need to communicate the plan to on-the-ground staff
- G. Road maintenance (e.g., check culverts, ditches)

## Helpful Links:

Airphotos online

<http://www.dnr.state.mn.us/airphotos/index.html>

Visual Sensitivity Classification Maps

[http://www.dnr.state.mn.us/forestry/visual\\_sensitivity/index.html](http://www.dnr.state.mn.us/forestry/visual_sensitivity/index.html)

Web Soil Survey

<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

Public Waters Inventory Maps and Lists

[http://www.dnr.state.mn.us/waters/watermgmt\\_section/pwi/maps.html](http://www.dnr.state.mn.us/waters/watermgmt_section/pwi/maps.html)

Permit Application Form & Fee Calculation Sheet

<http://www.dnr.state.mn.us/waters/forms.html>

Landowner Statement & Contractor Responsibility Form for Work in Wetlands & Public Waters

[http://www.bwsr.state.mn.us/wetlands/forms/Contractor\\_Responsibility.doc](http://www.bwsr.state.mn.us/wetlands/forms/Contractor_Responsibility.doc)

Gopher State One Call

<http://www.gopherstateonecall.org/>