

Site Condition Assessment

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The sustainable management of systems involves evaluating a range of ecological, economic, and social conditions. Forest technologists must identify species, use classification systems, and identify cultural values and other factors that contribute to the development or implementation of plans in the forest environment.

Demonstrable Competencies

Measures

A. Conduct assessments and field surveys

1. Conduct silvicultural and timber-harvesting treatment surveys ¹
2. Apply appropriate field sampling methodologies
3. Conduct fire surveys
4. Conduct wildlife, insect, and disease surveys
5. Conduct forest inventory surveys ²
6. Conduct watershed assessments
7. Conduct field surveys of human-made infrastructures

B. Interpret site conditions

1. Identify forest plants and fungi common to a given region
2. Identify wildlife, wildlife signs, and associated habitat features
3. Identify forest insects and diseases
4. Collect spatial and attribute information
5. Collect field data using appropriate equipment and technologies
6. Interpret landscape features using remotely sensed data, imagery, and maps
7. Identify damage in forests caused from insects, disease, wildlife, and abiotic factors
8. Recognize rare or sensitive ecological features
9. Identify anthropogenic and non-anthropogenic features common to a given region
10. Interpret factors influencing stand dynamics
11. Identify drainage characteristics from soil and terrain
12. Integrate ecological site values ³

Notes:

1. Includes pre and post-harvest and stand surveys.
2. Includes timber, soils, ecosites, and other characteristics.
3. May include cultural or spiritual - indirect use (health and wellbeing), traditional medicines, potential for gathering, etc.

Site Condition Assessment continued

Demonstrable Competencies

Measures

C. Measure site conditions

1. Measure tree and stand-level attributes
2. Measure topographic, cartographic, and hydrological characteristics ¹
3. Measure soil characteristics ²
4. Measure forest products pre and post-harvest ³
5. Measure forest road infrastructure ⁴

D. Predict potential uses, products, and other values

1. Rank commercial, non-commercial, and ecosystem service values ⁵
2. Describe site features and landforms contributing to access and silviculture potential
3. Identify potential forest products ⁶
4. Identify the values of user groups
5. Recognize the significance of heritage activities and traditional uses ⁷
6. Recognize potential site uses for Indigenous peoples ⁸
7. Identify anthropological and cultural values and features

E. Use tools, resources, and classification systems

1. Determine watercourse, waterbody, and wetland classes
2. Determine forest ecosites and productivity
3. Determine the risk of wildfire or fire danger rating
4. Determine forest development and successional stages

Notes:

1. Includes distances, directions, area, topographic position, elevation, aspect, and slopes.
2. Includes texture, pH, colour, structure, and organic matter.
3. Includes mensuration, scaling, timber cruising, vegetation, and forest inventory.
4. Includes geometry - width, length, slope, and changes in elevation of road.
5. Includes consumptive - direct use (e.g. firewood/ mushrooms, wildlife), non-consumptive - direct use (e.g. recreation, hiking, equestrian, quad, camping), ecosystem services - indirect use (e.g. carbon sequestration, water quality, biodiversity, wildlife, and aesthetic).
6. Includes both consumptive and non-consumptive.
7. Includes, but is not limited to, hunting, rangeland, trapping, fishing, and traditional burial grounds which may vary between nations and communities as determined through consultation.
8. Definition of anthropological is not limited to Indigenous peoples.