

13. Information Technology

13.1 Information Technology-Based Tools

Administration of the forest practices program is heavily dependent on information technology-based tools. Tools include information systems, such as the Forest Practices Application Review System (FPARS) and the Forest Practices Risk Assessment Mapping Tool, as well as discrete data sets, such as the hydrography layer that forms the basis of the water typing system. Within DNR, the Forest Practices Division works closely with the Information Technology Division to develop and maintain information technology tools to support the forest practices program. Of note in the past year are activities in the areas of FPARS upgrade, water typing, landslide hazard zonation, and northern spotted owl habitat data.

A total of 4,849 forest practices applications (4,041 excluding renewals) were entered into FPARS between July 1, 2008, and June 30, 2009. The FPARS data allows for both tabular and spatial data query. Currently, over 1,500 reviewers receive notification of new applications in their area of interest.

The Forest Practices Geographic Information Systems (GIS) section updates the DNR Hydrography data layer with water typing information received on Water Type Modification Forms. These updates are based on direct observation in the field by DNR personnel, forest landowners, fish survey contractors, and others. Between July 1, 2008, and June 30, 2009, we entered over 8,300 updates into the hydrography data set based on 1,372 Water Type Modification Forms. The Forest Practices GIS section also worked closely with Clallam County and Olympic Region Timber, Fish and Wildlife stakeholders to incorporate LiDAR-derived stream locations for a small watershed in the Clallam River basin.

In the past year, the Landslide Hazard Zonation (LHZ) Project has continued to add data and make improvements to the inventory of potentially unstable slopes and the delineation of landslide hazard areas in priority watersheds. During the 2009 fiscal year, four watershed analysis units were completed by the LHZ mapping team. In addition, there are four watershed analysis units that are in various stages of completion. The LHZ project was suspended at the end of June 2009 due to budget cuts. All data compiled to date for the statewide Landslide Inventory and the Landslide Hazard Zonation datasets are available for use in reviewing forest practice applications through the Forest Practices Risk Assessment Tool (FPRAT).

The Forest Practices GIS section recently completed a compilation of updated maps of northern spotted owl habitat conditions. Forest Practices staff in each region office examined orthophotos from 2006, and, combined with knowledge of on-the-ground conditions, submitted maps delineating northern spotted owl habitat. The habitat was classified following habitat definitions in Chapter 222-16-085 WAC. These maps have been captured in a statewide GIS data layer. The layer is now available to forest practices program staff for review, analysis, and update as needed.

FPARSv3

FPARS is the web-based system that notifies interested parties of forest practices application filings. Interested parties can access DNR's website to review forest practices applications. FPARS was implemented in phases of increasing functionality. FPARSv3 is the final FPARS

effort currently planned. In addition to forest practices applicants, FPARSv3 affects all Timber, Fish and Wildlife caucuses.

DNR completed the foundational technology work needed to implement FPARSv3 during this reporting period. FPARSv3 will be implemented in the fall of 2009. Currently and prior to implementation of FPARSv3, landowners submitted paper copy forest practices applications to DNR region offices for processing and approval/disapproval. The FPARSv3 project provides Forest Practices applicants the ability to complete a forest practices application and activity maps on-line and submit them via the internet to DNR. This information automatically creates the PDF documents that stakeholders review. For approved forest practices applications, the electronic landowner-generated maps automatically store the harvest unit boundaries and long term commitments into the forest practices GIS layer. Previous to these changes, DNR cartographers input the harvest unit boundaries from the hard copy map into GIS. The vision statement for the project follows:

Vision Statement

- Forest practices applicants are able to complete and submit forest practices applications online. Using a suite of web-based tools that enable them to fill in forms and create maps and using heads-up, on-screen digitizing, applicants submit completed forest practices applications and activity maps via the internet, directly to DNR.
- Forest practices supervisors review forest practices application data submitted via the Internet from a dashboard on their local computer. DNR regional support staff and cartographers only enter tabular and spatial data from forest practices applications that arrive by mail or are personally delivered to the DNR region office.
- DNR has a single source of complete historical and current tabular and spatial data on forest practices activities. The data are maintained in a standard format and accessible via the internet from any location.
- Forest practices staff distributes data, performs data analysis, risk assessments and program evaluations based on complete information about forest practices activities.

In sum, all tasks were accomplished leading to on-line submission of forest practices applications, other than those tasks related to electronic signature and electronic payment or reimbursement of application fees. The Governor's office is considering the possibility of using electronic signatures for State processes and methods that could be successfully implemented. Landowners will continue to submit signature pages and payment either by mail or in person until such time as the State of Washington offers electronic signatures.