

POLICIES, PROCEDURES, AND RECOMMENDATIONS CONCERNING THE USE OF GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING TECHNOLOGIES IN THE COLLEGE OF FORESTRY

Geographic information systems (GIS) and remote sensing (RS) are powerful new tools in our programs of instruction and research within the College of Forestry (COF), at Oregon State University. The purpose of this document is to provide guidance to faculty, students, administrators, and others concerned about the appropriate use of these new technologies.

ACADEMIC RIGHTS AND RESPONSIBILITIES

As with all research conducted by COF faculty under the auspices of the Forest Research Laboratory (FRL), we have an obligation to pursue objective, scientific research and to report the results of our findings. In doing so, we comply with all relevant COF and OSU policies pertaining to such activities. Principal among them are the rights and responsibilities associated with academic freedom, as set forth in the OSU *Faculty Handbook*:

“The University does not attempt to control the personal opinion, nor the public expression of that opinion, of any member of the faculty or staff of the institution. Indeed, the faculty and administration of Oregon State University feel a responsibility to protect the right of each employee to express his or her personal opinion, but in doing so, employees have an obligation to avoid any action which purports to commit the institution to a position on any issue without appropriate approval.”

The *Handbook* further stipulates that, “As a scholar in an academic discipline, each faculty member is expected to:

- Seek and state the truth as he or she sees it
- Exercise critical self-discipline and judgment in using, extending and transmitting knowledge to diverse audiences on and off campus
- Practice intellectual honesty.”

COF policy (Admin Memo #31, August, 1993) augments the above protocols with additional guidance:

- “Faculty will, when speaking, testifying, or writing as a member of the university faculty, specifically note for the record that Oregon State

University and the College of Forestry or Forest Research Laboratory do not take positions on public policy matters.

- When providing information to policy-makers, clearly identify what is known, what is unknown, and what is contentious or uncertain. When synthesizing information or providing personal/professional judgment or opinion, let audiences know that you are doing so. Our purpose is to inform and to avoid misleading.
- Confine your scientific and professional participation to areas where you have qualifications and expertise.”

Adhering to the above policies is particularly important in the fields of GIS and RS because of the potentially sensitive nature of many datasets related to land ownership, resource conditions, management practices, and other attributes.

REPORTING AND RELEASE OF INFORMATION

Research conducted by the FRL is generally of a non-proprietary nature and intended for publication in scientific literature. It is incumbent upon us to publish our results in a timely and appropriate fashion. Researchers may delay release of their information, pending publication, in order to protect their intellectual property and to maintain the integrity of the scientific process.

Much of the raw data in the GIS/RS arena is in the public domain and is available from a number of sources. However, we may occasionally collect or augment data from specific sources that is of a sensitive or restricted nature, thereby requiring some measure of confidentiality and security. Data containing specific locations of critical wildlife habitat, important anthropological or cultural sites, valuable natural resources, fragile environmental sites, and resource statistics and other proprietary information collected from individual landowners are some prospective examples. Every effort will be made to protect the integrity of such sites, and the confidentiality of data and its sources as required by law or prior agreement with the party supplying the information. In all matters pertaining to the collection and release of information, we will comply with OSU policies and state and federal regulations.

EXCHANGE OF DATASETS

The exchange of datasets is a common practice among scientists and others. Because of the size and complexity of GIS/RS datasets, special provisions need to be made to accommodate such exchanges. First, we recommend continued support and augmentation of the Quantitative Services Group (QSG) in the Forest Science Department, the Environmental Remote Sensing Applications Laboratory (ERSAL), and the Forest Photogrammetry Research Laboratory (FPRL) in the Forest Resources Department, in order to facilitate the efficient archiving, updating, retrieval, exchange, and control of GIS/RS data used by FRL scientists and other OSU faculty. Second,

datasets should be distributed on a full cost-recovery basis. Third, we would explore utilizing the services of the State of Oregon GIS Center and affiliated state agencies to help us market and distribute datasets of major interest.

Care should be taken in all of the above transactions to ensure adequate documentation of procedures, assumptions, scope of inference, and other features underlying the datasets. Transmittal should also be accompanied by appropriate disclaimers and precautions against misuse or misinterpretation. It is the responsibility of the principal investigator, working in concert with the QSG or other groups as appropriate, to maintain the overall integrity and quality of the datasets, including provisions for documenting current versions, updating new versions, and deleting obsolete versions.

STATE-LEVEL INTERACTION AND COORDINATION

GIS/RS technologies are rapidly emerging as significant tools in local, regional, and statewide assessments of natural resources and related features. The Oregon Geographic Information Council (OGIC) has been directed to provide the leadership and coordination of public activities in the geographic information sector (Executive Order No. EO-94-16, September 23, 1994). The OGIC consists of members from twelve state agencies but the university sector is not represented at the present time. We recommend that OSU's Earth Information Science and Technology (EIST) Committee pursue formal affiliation with OGIC in order to ensure that research and educational needs are represented on the council.

PUBLIC RELATIONS

GIS and RS are graphic and versatile new technologies that hold great promise for landscape-level analysis and testing of hypotheses. We have not only an obligation but a compelling desire to share the results of our work in this arena with our constituencies. This includes the citizens of Oregon as well as various interest groups, the scientific community, and broad audiences throughout the region, nation, and world. We will use our standard vehicles of publications, workshops, conferences, newsletters, briefings, press releases, and other approaches to keep people informed of our progress and accomplishments.

GIS and RS are also powerful technologies that enable investigation of resource conditions and land management activities at scales and levels of resolution heretofore impossible. In displaying the results of our analyses, we must be sensitive to issues of privacy, confidentiality, species and site vulnerability, and other considerations. As indicated earlier, we will comply with all applicable state and federal laws and will follow a policy of open and honest communication.