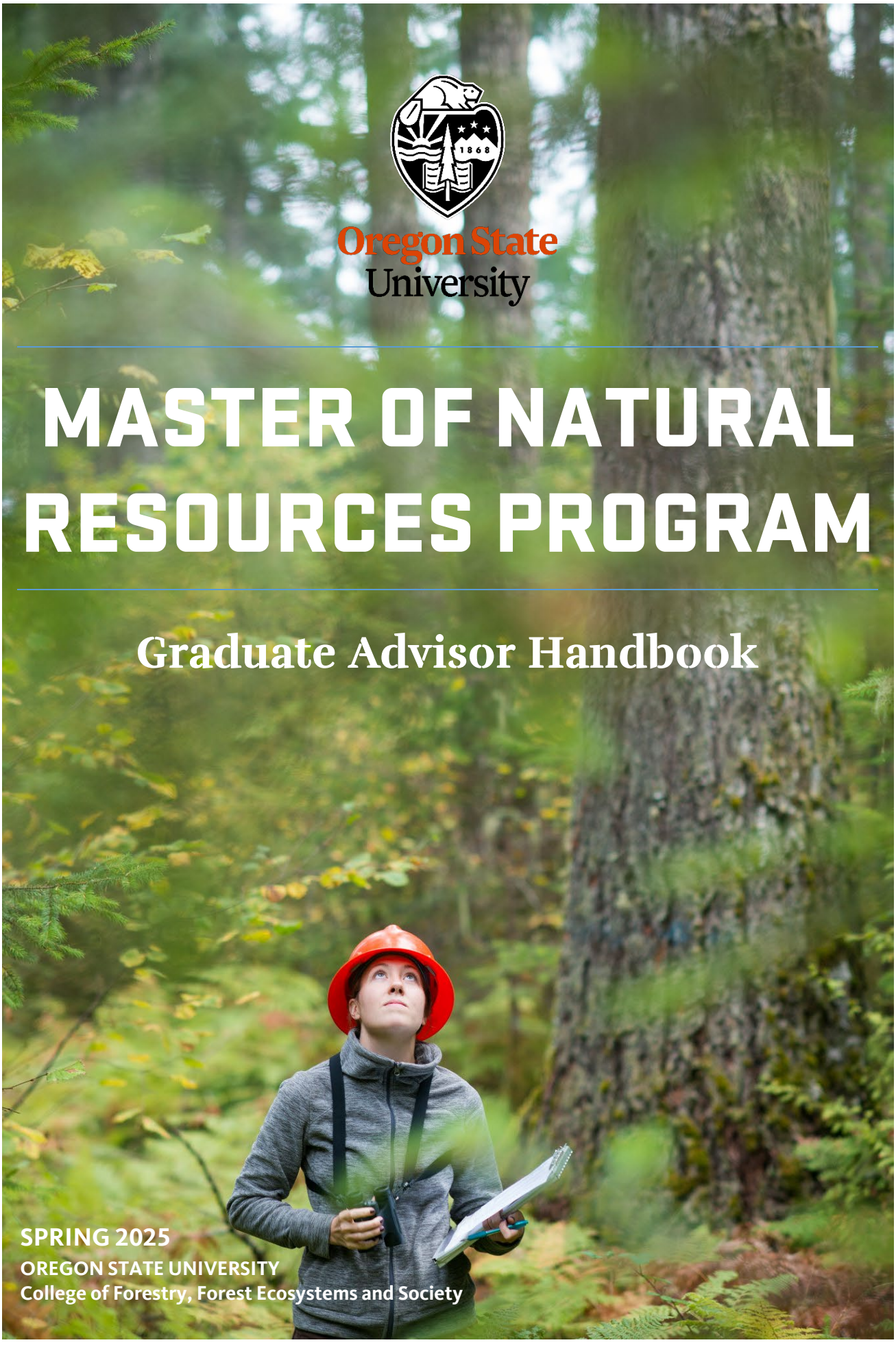

Oregon State University

MASTER OF NATURAL RESOURCES PROGRAM

Graduate Advisor Handbook

SPRING 2025

OREGON STATE UNIVERSITY

College of Forestry, Forest Ecosystems and Society

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About the Handbook

This handbook is designed for faculty who advise graduate students of the Master of Natural Resources (MNR) degree and the affiliated certificates. This handbook includes information about program requirements, academic policies, and relevant resources available to MNR students. Other sections of the handbook provide timelines, procedures, and strategies to help students get the most out of their graduate experience and be successful. A version of the handbook for students can be found here

Master of Natural Resources Program

The Oregon State University Master of Natural Resources (MNR) program is designed for working professionals interested in strengthening their natural resources knowledge and skills. This 45-credit program is delivered entirely online through Oregon State Ecampus. The resource management issues associated with fisheries and wildlife management, water conflict management, sustainable natural resources, urban forestry, and climate change are important to Oregon, the nation, and the world. Thus, MNR serves a broad audience in its mission to improve quality of life through education on critical environmental change and natural resources issues.

This interdisciplinary program draws from leading scientists from multiple departments within the Colleges of Agricultural Sciences; Forestry; Science; Liberal Arts; and Earth, Ocean, and Atmospheric Sciences. The College of Forestry administers the MNR degree and multiple departments administer the affiliated certificate programs, depending on the certificate focus. Since its inception in 2011, more than 150students have earned the MNR degree.

The MNR degree is a non-thesis program culminating in a capstone project and report. This degree is similar to other non-thesis master's degrees offered at OSU in that it does not involve the generation of primary research. The foundation of capstone projects developed by MNR students involve the application of skills and knowledge acquired throughout the program to address real world natural resource problems.

Students are expected to develop the analytical and problem-solving skills necessary to provide workable solutions for complex natural resources challenges, striving to balance economic, social, and/or environmental interests when appropriate.

Program website address: ecampus.oregonstate.edu/online-degrees/graduate/natural-resources/
Director of MNR Program: Dr. Eli Swanson
MNR Program Coordinator: Juliet Sutton

Admission to MNR Program

Admissions requirements

- Bachelor degree in natural and life sciences, natural resource management, forestry, agriculture, fisheries, wildlife, environmental studies, environmental sciences, public policy, or social sciences; OR successful completion of an OSU recognized Natural Resources Certificate program (see descriptions below)
- Minimum undergraduate GPA of 3.0
- An MNR faculty member who has agreed to serve as the student's major professor/advisor[1]

  ✓ *Potential major advisors should request a writing sample from students prior to agreeing to serve as their major advisor.*

  ✓ *It is recommended that students have two years of related work experience in natural resource management, natural resource policy, environmental science, or environmental policy. However, if a student does not have work experience they should discuss this with their major advisor and/or the program director.*

Deadline to apply

MNR students can start the program during the fall, winter, or spring terms. The complete application is due ten weeks prior to the academic term of their choosing. Applications submitted after this time will be considered for the following term. **Students must have a major advisor prior to acceptance into the MNR Program.** Please be aware that students will be contacting you before their first term.

[1] The terms "advisor" and "major professor" are used interchangeably. Typically, Oregon State University uses the term "major professor,"and the MNR program uses the term "advisor."

MNR Program of Study

The Master of Natural Resources degree program requires students to take 18 credits in core classes, 18 credits in an area of emphasis, and 9 credits for the MNR capstone project. Students can choose an area of emphasis from the certificate programs, or can opt for a self-designed area of emphasis based on their interests and goals. View the complete list of the MNR course offerings in the OSU Catalog.

MNR Sections	Introduction	Ecology/Production	Human Systems	Methodology
Core (18 credits) *provides breadth*	3 credits	6 credits	6-9 credits in 2+ areas	3 credits
	MNR 511 (*Introduction to Sustainable Natural Resources*)	See course offerings in the OSU Catalog.	• Economics • Policy • Sociology • Ethics • Communication	See course offerings in the OSU Catalog.
Area of Emphasis (18-20 credits) *provides depth*	**Choose** from student-designed, advisor approved area of emphasis, OR the following online graduate certificates (below);			
	• Geographic Information Science • Sustainable Natural Resources • Water Conflict Management • Fisheries Management • Wildlife Management • Forests and Climate Change • Urban Forestry *Link to* descriptions of certificate program			
Capstone[2] Project (9 credits)				
	3 credits of MNR 560[3] – Master's case study (Capstone proposal preparation) 6 credits of MNR 561 – MNR Capstone Project (Capstone research activities)			

As with all graduate degrees at OSU, 50% of the credits in the program must be "stand-alone" graduate classes.

[2] 560 and 561 cannot be taken concurrently

[3] SNR 511 + SNR 506 can be substituted for MNR 560

Capstone Project

The MNR Capstone project is not a thesis. Rather it is the culmination of a student's academic program at OSU and should reflect an integrative knowledge of sustainable natural resource management for the situation and/or site selected. Ideas for projects may be generated by faculty, the student, or the student's "client" organization or agency. Projects must provide a practical problem-solving experience for the student that approximates a future work environment, while providing client organizations with solutions and/or products addressing natural resource issue concerns. MNR capstone projects can be based on original data, a synthesis of existing data, or both. Final projects completed for graduate certificate programs cannot be used to meet the requirements for the MNR capstone.

As the advisor, you are expected to mentor the student in gathering, analyzing and synthesizing data and information to answer capstone project questions. If there are any questions about the suitability of a topic for a student's capstone, please contact the MNR Program Director.

The final capstone project results in a detailed report that demonstrates basic understanding and integrative knowledge of sustainable natural resource management for the site or situation selected for your capstone. Students are expected to devote 120 to 200 hours to the capstone project and prepare a 30- to 50-page final report (double-spaced, not including figures, tables, and references). There are no specific formatting requirements for the capstone report. Formatting decisions are to be made between the student and the advisor. The capstone project report is due during the last term of the MNR program of study.

Successful completion of a final oral examination is required for all master's degrees. Students will defend the course of study and capstone project by coordinating with their Graduate Advisory Committee. The student will present their capstone project during an oral examination, during which the committee will ask questions related to the capstone project work and the student's topical knowledge about sustainable natural resource management.

The Role of the Graduate Advisor

Graduate advisors must be approved as a member of the MNR Graduate faculty and are expected to assist students throughout the degree program. Duties include:

- Providing guidance and mentoring related to classes and all required tasks for the program.
- Helping students assemble a Graduate Advisory Committee.
- Assisting students with their program of study.
- Conduct annual assessments of student progress through the monitoring of grades and reviewing any changes to the student's program of study . Advisors and students are required to fill out the Annual Satisfactory Academic Progress Assessment to be submitted to the MNR degree coordinator no later that Week 7 of Spring term.
- Establish an agreed upon communication practice, either through email, zoom, or by telephone, and schedule regular meetings through each term.
- Guiding the student through any compliance requirements, such as Institutional Review Board approval for human subjects or animal care and use.

- Providing guidance, recommendations, and resources in the development of the student's capstone project.
- Providing feedback on two to three drafts of the final project report for the capstone, prior to the final oral examination.
- Overseeing the final oral examination with the Graduate Advisory Committee using video conferencing technology, or in person on campus if appropriate.
- Ensuring the final exam paperwork is submitted to the graduate school.

The Role of the Graduate Advisory Committee

Every student enrolled in the MNR degree program must have a Graduate Advisory Committee (GAC) to determine the course of study and finalize their capstone project. The GAC consists of three members: One graduate advisor (see duties above) and two additional graduate faculty members[4], reflecting either breadth (core area) or depth (area of emphasis) of the student's curriculum. Duties of the additional committee members include:

- Assisting students with their program of study, if appropriate.
- Providing guidance, recommendations, and resources in the development of the student's capstone project, if appropriate.
- Providing feedback on one to two drafts of the final project report for the capstone, **prior to the final oral examination**.
- Participate in the final oral examination.

MNR Student Learning Outcomes and Assessment

Upon completion of the MNR degree, students will be able to:

1. Demonstrate skill in integrative thinking and collaborative learning across several disciplines within the natural resource professions; show familiarity with a wide range of disciplinary knowledge and the capacity to apply knowledge to natural resource problems at multiple scales.

Students will incorporate knowledge gained from the diverse MNR courses into their capstone project to address real-world natural resource problems situated in ecological, economic and/or social contexts. Their final capstone report is assessed for the presence of elements of integrative thinking and the application of knowledge to successfully address the stated natural resource problem.

[4] Additional committee members do not have to be OSU faculty. Outside experts with masters and/or doctoral degrees can serve on students committees if granted courtesy or affiliate faculty status. Contact Juliet Sutton with questions.

2. Construct a study project about a specific issue using appropriate data/information gathering techniques, cross-disciplinary interactions, and integrated analysis methods.

Students will prepare a capstone project proposal that illustrates an understanding of the necessary information/data needed to address the stated natural resource problem, and the appropriate methods of gathering such information/data. The capstone proposal will be used to assess the soundness of the project design and any elements of cross-disciplinary interactions and/or integrative analysis required.

3. Apply sound methodologies and work ethics to problems in management or sustainability of natural resources.

All MNR students are required to take a methodology course and MNR 560 (case study preparation). Together these courses provide students with knowledge in research methods and research ethics. The grades from these courses will assess student understanding of the application of sound methodology and ethical study practices. Additional activities and/or products may be assessed for individual students who are including human subjects in their capstone (i.e. ensuring protections of human subjects via IRB approval and displaying appropriate and respectful behavior when engaging participants).

MNR Degree Milestones

Students are expected to check with their graduate program and the Graduate School regarding specific deadlines unique to the term and academic year they plan to complete their degree requirements. Visit the Graduate School deadlines website for more information about general graduate student requirements. The following are general guidelines:

1. During their first term, MNR student should start drafting a program of study and assembling their graduate advisory committee.
2. Before the student completes 18 credits, they should finalize their Graduate Advisory Committee and submit their program of study to the Graduate School.
3. Before the student completes 30 credits they should enroll in MNR 560 to prepare their capstone project proposal. As their advisor you should work with the student to plan their capstone project, and include other committee members.
4. After completion of MNR 560, the student should enroll in MNR 561 and begin activities associated with their capstone project. Students are required to complete a total of 6 credits of MNR 561. It is advised that students take these across multiple terms. We highly suggest discussing and agreeing on a timeline for writing, feedback, and final exam expectations with the student at this time.
5. Prior to their last term, the student should have completed a draft capstone report. You and the student will identify an exam date and time. The student will then submit a diploma application (at least two weeks before the final exam) for the term they will complete the program. Contact Juliet Sutton to schedule a room for the final exam.
6. During their last term, the student must register for three credits, submit their exam scheduling form (no later than two weeks prior to the final exam), present their capstone, pass their final exam, and complete all required coursework, totaling at least 45 credits from the MNR curriculum.

Timeline for Degree Completion

The time it takes for students to complete the MNR degree varies based on each student's professional and personal situation, and they have the flexibility to work at their own pace. On average, MNR students complete their degree within three years; however, the degree can be finished in under two years if students are enrolled as full-time students. MNR students must complete the program within a seven-year period. MNR students are still expected to check in quarterly, or once a term, with their major advisor, enroll in a minimum of three credits, and continue to work toward degree completion. If a student needs to take time off from being enrolled they must submit a leave of absence form or they will be required to re-apply to the program when they return, including paying a $75.00 fee.

Students enrolled in one of the affiliated certificate programs, and who plan to continue on in the MNR program should apply to the MNR before completing their certificate to avoid paying the graduate school application fee.

Costs and Funding

The MNR is a professional degree, and it is ultimately the student's responsibility to ensure all of their costs are covered. OSU does not provide scholarships or research funding for MNR or other distance programs. However, many students may qualify for financial aid, and this may be an important consideration for the timelines for students to complete their degrees. Graduate degree and certificate students need 5 or more credits per term to qualify for financial aid. MNR students are eligible for financial support to participate in study abroad programs. See the College of Forestry International Programs for more information.

Milestones Checklist

	WHAT	WHEN
☐	Secure a graduate major advisor	Prior to admittance to MNR
☐	Assemble graduate advisory committee	During first term

☐	Submit Program of Study to Juliet	Before completing 18 credits
☐	Enroll in MNR 560 – prepare capstone project proposal	Before completing 30 credits
☐	Enroll in 561 – capstone project activities	After completion of MNR 560
☐	Schedule timeline for completion with advisor	
☐	Submit first draft of Capstone report to advisor	Prior to final term
☐	Register for 3 credits	Final term
☐	Identify exam date and time with committee	During final term
☐	Contact Juliet to schedule room for exam	
☐	Submit exam scheduling form	At least 2 weeks prior to final exam
☐	Submit application for diploma	At least 2 weeks prior to final exam
☐	Upload Capstone Report to ScholarsArchive	Within 6 weeks of final exam

Examples of Completed MNR Capstone Projects

Topic Area	Project Title
Human Dimensions of Natural Resources	Homeowner Association Residents' Perceptions of Stormwater Retention Ponds and Clean Drinking Water: Montgomery West Homeowners Association (MWHOA) Gaithersburg, Maryland
	The Social Construction of the Deserving Poor within Renewable Energy Policy
	Eastern Madera County's Past, Present, & Future: Dynamic Ecological and Social Complexities
	Wildlife Ecologist- A Program Exposing Girl Scouts to Life Science and Outdoor STEM Activities
	Attitudes Toward Water Allocation Policy in the Willamette Valley, Oregon
	Stakeholder Preferences for Payment for Ecosystem Service Benefit Distribution Systems
	Analyzing a Collaborative Approach to Forest Management Planning on the Evitts Creek Water Company Property in Bedford County, Pennsylvania
	Eugene Residents' Risk Perception of Water Scarcity
	Assessing Impacts on Stakeholders from Climate Change Adaptation in Olympic National Forest and Olympic National Park
Land Management	The Use of Effectiveness Monitoring and Reporting for Fish and Wildlife Restoration within the Collaborative Forest Landscape Restoration Program 2010-2018
	Managing Human Resources to Protect Wildlife and Natural Ecosystems: A Case Study of the Weekiwachee Preserve, Hernando County, Florida
	Assessing county and regional planning for legacy impacts of abandoned mines
	Managing Natural Resource Sustainability Alternatives on a Former Military Base: A Case Study of the U.S. Army's Camp Bonneville, Clark County, WA
	The Nisqually: A Collaborative Approach to Habitat Restoration Planning & Monitoring
	An Overview of General Basin Information and Current Challenges & Management Strategies within Farmington Bay Waterfowl Management Area, Davis & Salt Lake Counties, Utah
	Sustainable Natural Resource Management: Identifying Land Cover Change and Associated Environmental Impacts of Wetland Conversion in the Upper Klamath Basin, Oregon
	Badger Hill Genetic Resource Site Management Plan
	Integrating Climate Change Adaptation into the Management of Alaska's Kenai River Watershed
	GIS Solutions to the Proposed Siskiyou Crest National Monument
Fisheries	Assessment of the Causal Linkages Between Forests and Fish: Implications for Management and Monitoring
	Proposed Recovery Plan for Pacific Bluefin Tuna
	Forecasting the Most Likely Status of Wild Salmon in the Central Valley of California in 2100
	Is beaver trapping to blame for declines in Oregon coastal coho? : A Review

	Possible Effects of Salmon Anemia Virus on Pacific Salmon Species of British Columbia and Their Fisheries
	Spruce Beetle and Colorado River Cutthroat Trout
	Mason's Run Brook Trout (*Salvelinus fontinalis*): History, Management Challenges, and Recommendations
	A Landscape-scale Watershed Assessment Method to Support Fish Passage Restoration Strategies in Puget Sound, Washington State: A Case Study for the Fish Barrier Removal Board
	Municipal Water Impacts on Steelhead Trout in the Gales Creek Watershed
Water Resources	Willamette River Watershed Management: Portland Oregon's Green Streets Initiative as a Resource to Manage Stormwater Flows and Retention of Heavy Metals and Other Pollutants
	Land Use Changes in the Necanicum River Watershed in Clatsop County Oregon: Water Quality Impacts
	A Management Strategy for Addressing Habitat Fragmentation and Poor Habitat Quality in an Urban Watershed: A Case Study of the Columbia Slough Watershed
	Quantifying the Geomorphic Response of Stream Restoration Projects: A Pilot Project on Whychus Creek
	Laws, regulations, and management plans to improve streamflow and stream temperature: A case study in the North Fork Burnt River Watershed
	Effects of Urbanization on the Salt River Watershed
	Klamath Reclamation Project: Approaches to Sustainable Groundwater Management
	Vulnerability of Irrigation Water Resources in a Changing Climate
	Water Reclamation for Wildfire Control and Management
	Saline Seep Management in North-central Montana
	What Do We Know about Stream-road Crossings? An Evaluation of Information Needs and Available Databases on Forest Service Lands in the Pacific Northwest
	Toledo Bend: The Potential of Changing from Hydropower to Water Sales
	Evaluating and Predicting Impacts of CO2 and CH4 Intrusion into a Confined Sandstone Aquifer: Fate of As and Cd
	Emiquon Preserve Connection: A Case Study of Reconnecting the Illinois River to Its Original Floodplain
	Resuspension of Legacy Pollutants from Historical Mining and Agricultural Land use, Summersville Lake, Summersville, West Virginia
Wildlife	Information Needs, Proposed Research, and Management for the Black Oystercatcher: A Report to Region 1 of the U.S. Fish and Wildlife Service
	Black Swift (Cypseloides niger borealis) Habitat Suitability Modeling in Montana Utilizing Spatial Analysis of Digital Elevation Models
	Sierra Nevada Red Fox: Preliminary Findings on Home-Range, Habitat Use and Den Site Characteristics in the High Cascades of Central Oregon
	Evaluating the success of an Orphaned Black Bear Rehabiliation Program in Virginia
	Will Hair of Known Predators Act as a Repellant of White-tailed Deer?

	Comparing the Impacts of Human Presence on Tigers in the Russian Far East and the Sundarbans
	Supporting Wolverine Persistence in the United States: The Endangered Species Act and Corridors for Connectivity -- A Literature Review
	Managing the Factors Threatening the Health of Isle Royale National Park Ecosystems, Considering the Decline of Population Status and Loss of Genetic Variability of the Wolf Population Due to Ongoing Anthropogenic Factors
	Invasion of *O. rusticus* in Valley Forge National Historical Park, Pennsylvania
Vegetation Management	The Gwinnett County Parks and Recreation's Invasive Plant Species Management Plan
	Juniper Expansion in Oregon and Implications for Climate Change Mitigation
	Invasive Species and Their Management in the George Washington and Jefferson National Forests: A Case Study
	Monarch Vegetation Management Plan
	Haleakala National Park Vegetation Management Plan
	Remotely Sensed Shrub Density as a New Layer in Habitat Prediction Models
Forestry	Sustainable Energy for Galena, Alaska: Timber Harvest Management Plan
	Round Mountain Young Stand Development Capstone Project
	The Herting Tree Nursery: Moving Toward Sustainability
Urban Areas	The Benefits of Urban Natural Areas: Use, Management, and Conservation
	Climate Adaptation Planning: Preparing Bologna, Italy through a Comparative Analysis with Portland, Oregon USA
	Green Infrastructure and Sustainable Practices in Hamburg, Germany
	Siberian Elm in New Mexico: A Community Landscape Approach to an Invasive Species
	Understanding Vulnerability: A Study of the Euclid Creek Watershed
	Martha Gardens Green Alleyways: A Case Study in Stormwater Management through Low Impact Development Practices
Traditional Ecological Knowledge	A Traditional Environmental Knowledge and Cultural Reconstruction: A Practical Application at the Red Bluff Recreation Area, Mendocino National Forest, Graindston District
	Traditional Ecological Knowledge in Sustainable Ecosystems: Integrating Indigenous and Western Science and Philosophy
	Baseline Socioeconomic Assessment of Traditional Villages in American Samoa with Village Marine Protected Areas
Other	An Overview of Natural Gas Well Pad Surface Disturbances and Techniques Used to Increase Reclamation Success within the Vermillion Basin, Wyoming
	Potential for Coastal Wetland Blue Carbon Offset Projects in the Point Reyes Area, California
	Using Community Gardens to Help Solve the Hunger Crisis in San Diego County
	Lake Solano Regional Park: Master Plan Assessment and Update
	Mill Creek Nature Center: A Framework for Sustainability
	Cyber-software Combining User-defined Time-lapse Digital Photography and Time-series Data for Sustaining Research and Advancing Discovery in GLOBE and Beyond