

AN ABSTRACT OF THE FINAL REPORT OF

Cynthia L. Comfort for the degree of Master of Environmental Sciences in the Professional Science Master's Program presented on September 19, 2011.

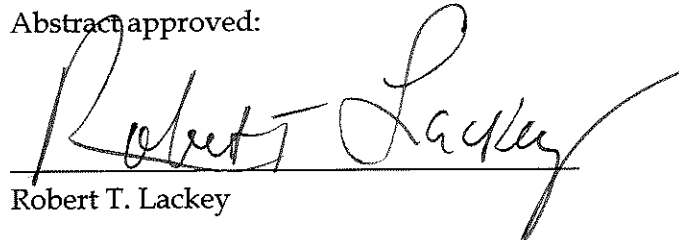
Title: An Internship in Natural Resources Policy and Project Management: Administrative and Professional Skill Development.

Internship conducted at: The Institute for Natural Resources
210 Strand Agricultural Hall
Corvallis, OR 97331

Supervisor: Sally Duncan, PhD. Policy Research Program Manager

Dates of Internship: August 19, 2010 to September 14, 2011.

Abstract approved:



Robert T. Lackey

My Professional Science Master's internship was at the Institute for Natural Resources (INR) at Oregon State University (OSU). I was involved in several projects as well as independent tasks that allowed me to further develop my writing, research, and administrative skills. I also had the opportunity to explore new natural resource issues, cultivate new professional relationships, and sit in on important meetings and work sessions.

My internship objectives were to work within a natural resource organization and learn about research grant proposal development and the design, implementation and management of large science-policy projects. My involvement with the various projects at INR helped me understand the development of research proposals, how projects are coordinated towards achieving goals, and what steps can be taken to cultivate the resources necessary to achieve the goals. I also learned there are many challenges associated with

trans-disciplinary projects where communication, listening, consultation, and translation skills are critical. The duties included assistant project management, coordinating and communicating with project leads, copy and layout editing of documents, administrative duties, background research for projects and potential grant proposals, science writing, and literature reviews among others.

Though many of my internship experiences taught me specific career skills and provided me with professional experiences, some of the best lessons from this experience are more abstract in nature. My key lessons learned include: know your personal goals, receive criticism as a learning experience, respect your own ability to contribute, bring confidence with you to your work, always give it your best effort, be open to all opportunities, ask questions when you don't know, appreciate those who help you along the way, sometimes it is just not meant to be, one person can make a big difference in a team setting, good communication and people skills can take you a long way, keep an eye to the future, and treat everyone as though this is the beginning of a new relationship.

An Internship in Natural Resources Policy
and Project Management: Administrative
and Professional Skill Development

by
Cynthia L. Comfort

A FINAL REPORT

submitted to

Oregon State University

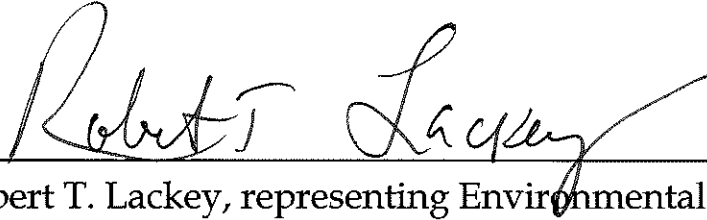
in partial fulfillment of
the requirements for the
degree of

Master of Science

Presented September 19, 2011
Commencement June 16, 2012

Master of Science final report of Cynthia L. Comfort
presented on September 19, 2011.

APPROVED:

A handwritten signature in black ink, reading "Robert T. Lackey". The signature is written in a cursive style with a long horizontal stroke at the end. It is positioned above a horizontal line.

Robert T. Lackey, representing Environmental Sciences

I understand that my final report will become part of the permanent collection of the Oregon State University Professional Science Master's Program. My signature below authorizes release of my final report to any reader upon request.

Cynthia L. Comfort, Author

Acknowledgements

My deepest appreciation for all the time, attention, support, and advice I received from everyone throughout my educational journey.

My Major Professor:

Robert T. Lackey, PhD

Thank you so much for your willingness to mentor me! Your insights and encouragement are deeply appreciated. You consistently provide a perfect balance of guidance, expertise, and wisdom. I literally could not have done it without you.

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My Graduate Committee:

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Hillary Egna, PhD

Scott Reed, PhD

Thank you all for your willingness to support me through this experience. I am privileged to have people of your character and accomplishments contribute to my education and career goals.

The leadership team and entire staff at the Institute for Natural Resources, with special consideration for:

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Sue Lurie, PhD

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Thank you for your constant assistance and feedback. I appreciate your faith in me and your willingness to let me participate in your projects.

My family:

Robert and Ann Comfort

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Without your continuous support and belief in me, this experience would have been much harder, if not impossible. I am lucky to have such an amazing family! Thank You!

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An Internship in Natural Resources
Policy and Project Management:
Administrative and Professional Skills
Development

Cynthia L. Comfort

Master of Science

September 19, 2011

The Business Report

Description of the Business

The Institute for Natural Resources (INR) was created by the Oregon Legislature with the Oregon Sustainability Act of 2001. INR is a cooperative enterprise bringing the scientific knowledge and expertise of the Oregon University System and other Oregon higher education institutions to bear on natural resource management.

Oregon State University was designated as the lead university to administer INR, where it was established as a research institute within the university to help decision makers identify and use relevant science in making policy choices. The whole Oregon University System and INR seek to facilitate access to, and the use of, integrated science in natural resource and environmental decision making.

The purpose of the Institute for Natural Resources is to address natural resource management challenges and opportunities by maintaining core programs while staying flexible enough to work on emerging natural resource related focus areas of interest. In practice, INR has engaged in:

- a. Serving as a clearinghouse for scientifically based natural resource information;
- b. Providing scientifically based natural resource information to the public in integrated and accessible formats;
- c. Coordinating efforts with other state agencies and bodies to provide natural resources information to the public in a comprehensive manner;
- d. Facilitating and conducting research;
- e. Providing information and technical tools to assist decision making on natural resource issues; and
- f. Providing objective policy analysis and recommendations where appropriate.

INR is home to, or serves as a representative to a number of core programs: the Policy Research Program, the Oregon Biodiversity Information Center, Oregon Explorer, the Landscape Assessment and Mapping program, the Oregon Natural Areas Program, and the Cooperative Ecosystem Studies Unit.

Practical engagements of INR include compiling and integrating natural resource datasets and information, providing access to comprehensive natural resource information, applied policy research and synthesis, science reviews,

convening of policy dialogues, facilitating large grant proposals, and managing interdisciplinary research and project teams.

The goals of my internship were to develop natural resource project management and administrative skills that could be applicable to a future career. I strived to improve my communication skills and develop contacts within federal, state, and local agencies as well as other key environmental organizations. I intended to leave this experience with an understanding of what is involved in the design, implementation and management of large, collaborative science-policy projects. Through the various researching, writing and editing assignments my ability to research topics and synthesize understandable summaries has demonstrably improved.

Marketing

INR publishes two to three E-newsletters which include notes from the director, highlight of ongoing projects, lists of reports, video, and publications from staff, and updates on other related news. INR has also been featured in the mainstream news in relation to many environmental issues and solutions. An Ecosystems Commons portal has also been developed by INR to provide a network tool and collaborative space for all parties working with, or interested in, the ecosystem perspectives on environmental and natural resource issues.

The growth of INR is subject to ongoing, funded research and participation in collaborative projects. The policy proposal process is continuous, but INR has also been contracted by other organizations and agencies to facilitate conferences and workshops, review scientific findings, and manage projects. The more projects that INR can be involved in and get funding for, the larger the support staff needed.

Finances

The Institute is partially funded by legislative support money, or hard money, with the majority of the financial support for staff and projects brought in by grants (soft money). Grants are critical to the financial basis of the organization and come from a wide variety of agencies, foundations, and trusts including the National Science Foundation, the Bullitt Foundation, the National Institute of Food and Agriculture, and the United States Department of Agriculture. The Leadership Team is compensated partially from hard money, with the rest from soft money. There are salary caps on the leadership team regardless of the grant money brought in. Support, research, and student staff are all compensated by grant money from the project they are working on. Because INR is associated with Oregon State University, all research grant

money is subject to indirect, overhead, or Facilities and Administrative costs. Current on-campus rates range from 26% to 50% depending on the type of activity.

INR typically engages in multi-disciplinary research projects. This approach is based on a strong belief that natural resource projects are complex, multi-faceted, and draw upon multiple kinds and topics of learning and knowledge.

Management and Human Resources

A leadership team comprises the core of the Institute. There is an Interim Director, an Oregon Explorer Program Manager, a Policy Research Program Manager, and an INR- Portland Oregon Biodiversity Information Center (ORBIC) Director, with an Administrative Assistant for daily support and administrative guidance. Staff and student interns in Corvallis and Portland, as well as temporary and field staff are collectively under the purview of the leadership team.

My internship supervisor is the Policy Research Program Manager, Dr. Sally Duncan. Besides directing most of my activities, I was also provided the opportunity to shadow her at several grant proposal meetings. I worked closely with, and under the supervision of several other Institute staff members. Janine Salwasser is the ILAP coordinator, and she guided much of my work for that project. A faculty research associate, Dr. Sue Lurie, helped to provide direction and background for the Ecosystem Services District project and the copy editing of the science review for the Oregon Department of Forestry. I had the opportunity to interact with several other Faculty Research Assistants, the Interim Director, the Administrative Assistant, as well as other graduate student interns on all of my projects and tasks. Much of my work was self guided after assignment, with feedback provided during the process and after completion. Dr. Duncan met with me periodically to provide feedback on my performance and discuss my goals and expectations.

My internship was a unique opportunity to experience aspects of several different projects and functions of a natural resource oriented organization. While my internship time frame denied me the opportunity to see a project through from inception to completion, I was afforded the chance to be part of many different types of projects and expand my knowledge and skill sets because of the array of tasks. The background research that I was assigned to complete for the various projects taught me about many aspects of the natural resource industry that I was not exposed to during my class work.

One large challenge a soft money organization like INR faces is the need for developing a continuous stream of grant proposals while simultaneously managing ongoing projects. Agencies and foundations require real and measurable results for their money, and sights need to be kept on meeting those goals in the requisite time. The leadership team is primarily responsible for writing grant proposals, and they need to be constantly developing new ideas and coordinating with new partners.

The Science Report

During my tenure with INR, I had the opportunity to be involved with several ongoing research projects including the Portland/Vancouver Urban Long Term Research Area Exploratory Award (ULTRA-Ex), the Integrated Landscape Assessment Project (ILAP), the Ecosystem Services District project, as well as several other independent tasks and shadowing experiences.

The Portland/Vancouver Urban Long Term Research Area (ULTRA-Ex)

Introduction

The Portland/Vancouver ULTRA-Ex project seeks to understand the feedbacks between human and natural systems in urban settings. Utilizing the contrasting political regimes of Vancouver, Washington and Portland, Oregon, researchers at four universities are studying the resilience of urban socio-ecological systems. The ULTRA team spans Portland State University, Oregon State University, Washington State University-Vancouver, and Reed College, as well as Metro (the elected regional government for the Portland metropolitan area), the United States Forest Service Pacific Northwest Research Station, Clark County, Washington, and other local and federal agencies. Researchers, graduate students, agency staff, and government employees all participate in the research and project coordination process. This project was funded by the National Science Foundation (NSF) and the U.S. Forest Service for two years, but researchers hope it can become a permanent or long term, urban research area. Results and successes of the initial two years will weigh heavily on whether the Portland/Vancouver ULTRA-Ex site will secure additional funding.

Materials and Methods

The large majority of my work on the ULTRA-Ex project was during the months of September, 2010 through March, 2011. Dr. Duncan is the OSU Principal Investigator for the project, placing her as co-lead of the Executive

Committee. For this project, I assisted her with project management activities through administrative tasks and communications with project team members and advisory committee members. I worked primarily out of the Oregon State University office of INR and had daily interactions with Dr. Duncan. The tasks I completed for this project include:

- Compiling spreadsheet contact lists of all research team members, support staff, graduate students, and advisory committee members. Names, contact information, project roles, and professional affiliations were included in the list.
- Extensive communications with all team members, staff, graduate students, and advisory committee members to solicit information, notify of meetings including times, locations, and directions, coordinate attendance at meetings and workshops, and make transportation arrangements.
- Created spreadsheets of individual project research questions, data needs, and research findings to assist team members with coordination.
- Researched and created a database of all environmentally active organizations in the greater Portland and Vancouver metro areas, including location, scope of work, affiliations, contact information, and descriptions of program mission and goals.
- Wrote and published a two page Fact Sheet describing the ULTRA-Ex project, including the sub projects and themes, for distribution to agencies, policy makers, stakeholders, and general public.
- Assisted in organizing the September, 2010 two day ULTRA-Ex retreat. The weekend included a field trip of research project site visits, a workday at Reed College where updates of project research were presented, as well as development of project integration and future publications. I distributed research theoretical diagrams, maps and driving directions, compiled RSVP lists, secured transportation, and transcribed conference notes.
- For the Civic Ecology Unifying theme I did a literature review for the project lead which included highlighting emerging themes and trends in the literature.

Discussion

The Portland/Vancouver ULTRA-EX is an offshoot of the NSF supported Long-Term Ecological Research (LTER) program. Two urban sites existed before this project began, Baltimore and Phoenix. Research results from this project seek to inform policy makers and urban land managers about land use decisions and associated impacts on natural systems. The information will be delivered primarily in publications and presentations for scholarly and practitioner audiences that disseminate research results, primarily through peer reviewed journal articles.

Sixteen ULTRA-Ex awards were awarded around the United States. Though the focuses of each ULTRA-Ex site vary, the results should be complimentary in discovering how urban systems affect natural processes. Each ULTRA-Ex project will be expected to contribute to the broader base of scientific knowledge regarding human-ecosystem interactions and to benefit user communities.

Conclusion

I learned quite a bit by participating in this project. This was my first experience in a project funded by the NSF. I learned it is important to understand what the funding organization's goals are, and to align your research with those goals. For example: The National Science Foundation evaluates all proposals through the use of the two National Science Board approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. Having key advisors on the project that are familiar with NSF merit criteria and have a successful funding history with the organization will help in that process. Workshops that allow project leads to integrate goals and information, as well as generate discussions can help with focusing research objectives. I thought the most successful parts of the September, 2010 workshop were the brainstorming sessions where individual project researchers were required to identify at least two ways their project integrated with other projects and how that would affect the broader impacts of the project. I learned that even if researchers have very different methods, you can help them integrate their work by having them agree on project goals and how they will each contribute to that goal.

Projects are as much about managing personalities as they are about managing the research. Many established researchers don't want interference in their project and may resent having a project manager that is too involved. As a manager you can set up a system where they initiate regular updates with you, rather than you having to wait on them for a response. Managers must also

realize that sometimes conflict is unavoidable. Learn to expect some resistance and hopefully it can be minimized through preparation, diplomacy, and strong leadership.

I learned that sometimes the role of project manager is to be a sounding board, an intermediary, or just provide a nudge (or shove) to get the project back on track. Project management is a skill that requires carefully balancing the project goals with the individual's need and tolerance for guidance. Some people may require more regular check-ins and assistance to complete their goals, while others are capable of more autonomy.

Assigning blame is rarely helpful to completing the project, and it can inflame an already tense situation. You must focus on what can be done, when something can be changed, and discovering what is the true source of the problem. Once you understand what is going wrong you can develop a plan to overcome the issue or find a different way.

The Integrate Landscape Assessment Project (ILAP)

Introduction

ILAP is a two year project funded by the American Reinvestment and Recovery Act, which Congress passed and President Obama signed in 2009 as a direct response to the national economic crisis. It created about 50 temporary jobs that are targeted for watershed-level prioritization of land management actions based on landscape vegetation conditions, wildlife habitat, fuel conditions, economic values, and climate change in Oregon, Washington, Arizona, and New Mexico. This is a collaborative effort among scientists, analysts, and writers from the USDA Forest Service, Oregon State University College of Forestry, and the Oregon Institute for Natural Resources. It also brings together scientists, land managers and planners from other state and federal forestry, wildlife, and natural resource agencies, conservation organizations, and universities. ILAP is integrating tools and data to create a decision framework to help planners, managers, and policymakers make the most informed decisions on land management actions. The main questions this project addresses:

- What are the conditions and trends of forest fuels?
- What are the conditions and trend of selected wildlife habitats?
- What management activities could have economic benefits?

- Which watersheds should managers prioritize for restoration to concurrently reduce critical fuels, improve or maintain wildlife habitat, and have positive economic effects?

Project modules are divided into knowledge discovery and science delivery. The Science Delivery modules include the Spatial Data module, Vegetation Dynamics Development Tool (VDDT) module and the Ecosystem Management Decision Support (EMDS) module. The Knowledge Discovery modules include the Wildlife Habitats module, Fuel Characterizations module, Fuel Treatment Financials module, Community Economics module, Climate Change modules (addressing changes in fire probabilities, water supply, and watershed conditions), and Optimized Decision Support System module. The Knowledge Discovery modules will integrate inputs and outputs from the Science Delivery modules to inform mid- to broad-scale landscape prioritizations of land management actions for use by planners, land managers, and policy-makers.

The project is creating a variety of analytical and graphical tools that generate maps, tables and graphs that can be used to integrate and prioritize land management activities. The products from ILAP are complimentary to other projects (such as LANDFIRE), and are currently being used by several state and federal agencies as well as other collaborative projects.

Materials and Methods

For this project I was assigned the task of science writing and filming several video user testimonials which will be published on the ILAP website through the multi-media authoring tool, Pachyderm. The science writing entailed self education about eight knowledge discovery modules. I watched webinars and spoke with project leads to assemble pertinent information, and wrote one-half to one page summaries on each module. The intended audience for these science write-ups is policy makers, state and federal agencies, other collaborative projects, and the general public. The write-ups will be published on the Western Landscapes Explorer website, under the ILAP link, by spring of 2012. For this site I also wrote 1 page overviews of northwest and southwest landscapes and 5 other one page write ups about collaborative projects related to ILAP: FireScope, IMAP, Tapash Collaborative, Land Conservation Cooperatives and Climate Science Centers, and Collaborative Landscape Management.

My secondary assignment was to obtain video user testimonials from several state and federal agency employees and environmental organizations that are familiar with the ILAP project. I traveled to Portland, Olympia, and the

Oak Creek State Wildlife Area outside of Yakima to film the testimonials from two federal land managers, one state project manager, and one collaborative group representative. These videos will be edited and posted on the ILAP site with the Pachyderm tool. I learned to use video and wireless audio equipment as well as how to transfer video onto an external hard drive and complete basic video editing. I also had to secure my own transportation and lodging arrangements.

Discussion

Through this project I obtained quite a bit of knowledge about computer models and software applications that are being utilized by environmental researchers. I also became familiar with quite a few other landscape scale cooperative collaborations in the western United States. This required researching the organizations, the scope of their work, and the eco-regions they operate in. I also contacted several of the project coordinators to verify accuracy of the write-up. This experience proved invaluable as a way to meet key people that are involved in natural resource management and have them share experiences and advice about the industry. While ILAP has been useful for several projects in the Pacific Northwest, there is still a large unexplored market that it could help inform and support.

Conclusion

This project provided me the unique opportunity to engage with many people working in the natural resource world. It was fascinating to hear how a project that I researched was being applied in real planning and land management. Agency staff is actually using the data, models and tools that the ILAP researchers are developing to help plan management actions for the next few decades. Many of them had very positive things to say about the project, and it was exciting to hear about the applications being put to use. State and federal agency staffs are busy people engaged in complex, collaborative projects that entail extensive time and monetary commitments. Obtaining the help and cooperation of agency staff is greatly facilitated by introductions, concise and appreciative requests, and explicit descriptions of what you are asking for. They want to know exactly what is being asked of them, how much time it will take, and that their time and effort is not taken for granted.

Data and tools that are being developed to help inform decisions are needed as people develop plans for the future under changing climate, land use, and natural disasters. The ILAP project was a great example of a shorter term project yielding valuable tools that people are implementing. It also seems there

is a trend towards collaborative planning and managing to meet large landscape goals. With the current land ownership patterns in many states, I believe there is the need for aligning goals and actions across landscapes. Without considering how management actions will affect adjoining landscapes, the potential for large scale change and restoration is limited. Like many other projects, there is as much a managing of personalities and individual goals as there is the actual project. One of the people I interviewed shared some insights into his collaborative project. He has found that some rural people are distrustful of government interference. When projects involve voluntary, multiple stakeholders, and actions are not dictated to land owners, some of that dissension can be alleviated. He also found that land use goals are as varied as the personalities involved. Most of those goals are tied to long term economic and environmental sustainability. People must have personal incentives for collaborating and possibly compromising. I expect that keeping open lines of communication and trying to work directly with as many of the people as possible will help in developing important compromises.

Ecosystem Services District Project

Introduction

Another project I was involved in entailed researching the creation of an Ecosystem Services Market and District in the McKenzie River watershed. The Eugene Water and Electric Board (EWEB) is looking to potentially collaborate with the local Soil and Water Conservation District (SWCD), McKenzie Watershed Council, the Natural Resource Conservation Service (NRCS), the Cascade Pacific Resource Conservation and Development (CPRC&D), and Oregon State University to develop a type of certification scheme or Payment for Ecosystem Services (PES) market that enlists the support of landowners along the McKenzie River in securing a clean water source for communities and ecosystems. This project is dually funded by the Bullitt Foundation and National Institute of Food and Agriculture (NIFA), each with different but aligned goals.

The Bullitt Foundation grant seeks to investigate mechanisms and institutional structures needed for public water utilities in the Pacific Northwest to develop and implement payment for ecosystem services programs to finance restoration and protection of source watersheds in lieu of traditional engineered solutions. The Bullitt Foundation funds and partners with other organizations that seek to devise strategies, identify opportunities, and help find needed resources to move the environmental agenda forward. Its mission is "To

safeguard the natural environment by promoting responsible human activities and sustainable communities in the Pacific Northwest”.

NIFA is under the United States Department of Agriculture (USDA) and supplies grants to numerous types of research.

Materials and Methods

For this project I was primarily involved in background research regarding concepts related to developing a certification scheme or ecosystem services market. I created several documents as part of this informative process, including:

- Research on potential partner organizations (listed above) detailing background, mission, legal authority, objectives, ongoing conservation or restoration programs (both document and spreadsheet format), and barriers to their involvement in this new soft form of governance;
- Research on international, national and local businesses that have implemented sustainable business actions, hold environmental certifications, have environmental affiliations and partnerships, and their awards or acknowledgments;
- Spreadsheet listing current certification or eco-labeling schemes, as well as valuation method, what it being certified, the certifying method and body, the types of certification levels, the benefits to the certificate holder, the challenges or disadvantages to certification, and the motivations for certification for each scheme; and
- A literature review of certification and/or eco-labeling schemes which detailed components of existing successful certification schemes, ingredients that contribute to successful schemes and lessons learned from existing schemes as well as a separate one page summary of results.

Discussion

Certification or eco-labeling schemes have found more success when they have one or more of several key characteristics. Research I completed indicates that often government certification programs have seen more success due to the improved financial stability, legal protection, and long-term viability that is usually associated with them (Banjaree & Solomon, 2003). Consumers must be aware of the scheme and recognize products or services associated with it. Consumers are generally unwilling to pay a price premium for certified products

or services; they must be priced in a reasonable range compared to conventional products (Truffer et al, 2001). Incentives are important to both producers and consumers. Research also indicates that programs with a trustworthy reputation and adequate monitoring and reporting components are essential ingredients for market acceptance (Truffer et al, 2001). Environmental organizations and consumers can drive product/service acceptance as well as making environmental responsibility part of the cost of doing business. Company goals that align with community goals tend to find more acceptance, as consumers have shown a preference for environmentally preferred products (Tepehus et al, 2005).

Conclusion

Involvement in this projects taught me that there is a significant amount of research that is required as part of the process in developing new projects. For every aspect of the project, a thorough review of previous related research should be done. This will give you a basis to work from and help you identify where additional research can be done.

It is important to inform yourself about previously completed research, as well as understanding goals and motivations of potential partners and consumers. Collaborative projects can take a long time as many of the partners have other ongoing projects that are being developed simultaneously. It is a continuous challenge trying to align schedules and responsibilities while ensuring lasting motivation of all stakeholders. Projects that are only coordinated through one agency or organization may see less time conflicts, but have shortcomings that derive from the lack of multiple perspectives. In short, they may not consider all the implications of a management action.

Willamette Floodplain Restoration

Introduction

I shadowed and scribed for a follow up meeting with participants of the Willamette Floodplain Restoration pilot program that is dually under the Oregon Watershed Enhancement Board and Bonneville Power Administration. These participants are agricultural producers that are working with The Greenbelt Land Trust as an intermediary to enroll some of their river front land in a land trust that will benefit riparian land stewardship along the Willamette River.

Discussion

Feedback from these producers was very informative and will contribute to a final report to the Meyer Memorial Trust on challenges and opportunities in Willamette Floodplain Restoration. Since the Trust is involved in the project they could use the information to inform and influence the process of future interactions with landowners, decision makers and agency staff. There were several key points that the producers talked about that I believe are very important. First, they were told that there was a very firm deadline to ensure funding, and then the deadline was moved back by the agency. Verbal assurances of continued funding were provided, but moving the deadline reduced confidence in the process. Because this is a pilot project, many other interested landowners in the area are closely watching the process. The success or failure of this project could greatly influence securing future land trusts. Another issue they talked about was project scope; this is a large process so relatively expensive, but worth it. However, many critical pieces of land may be much smaller and the expense may not be worth it to the land owner. There is a lot to do, legally speaking, and the landowners have incurred significant legal costs. They will be compensated for their trust, but the motivation for enrolling in this program is also for restoration reasons-ecological and environmental health. Many potential participants are very interested to see if the restoration is successful. There is great concern that the entrusted lands will not being managed properly, and it will affect adjoining properties. If the project does not fare well, it could discourage other landowners from enrolling in the program. The intermediary organization, Greenbelt Land Trust, is trying to ensure that doesn't happen by facilitating negotiations and following up on restoration work.

Senate Bill 513 - Ecosystem Services and Markets report

Introduction

The 2011 Oregon Legislative Assembly met in the winter of 2011. Prior to the Assembly, the Oregon Sustainability board contracted with the Institute for Natural Resources to draft a report about Senate Bill 513-Ecosystem Services and Markets, with relevant issues, policy proposals, and implementation steps and rationales. The report is approximately 36 pages and comes in both paper and electronic form.

Methods and Discussion

For this project I was tasked with managing the project of having the final report published in booklet form, with accompanying pictures. I coordinated with Oregon State University Printing Services to create the booklet. Defenders of Wildlife was contacted and asked for access to their "Flickr" photo stock to use in the booklet. I managed the process of layout editing and choosing the photos. This required several "at home" reviews of electronic and paper drafts as well as four in-person meetings and edits with the student staff and supervisor. The booklet was distributed at the Oregon Legislative Assembly, posted online, and offered at several other conferences attended by the Institute for Natural Resources staff. There was also mention that the student staff person at OSU Printing would be submitting it for a layout and printing award.

Individual Assignments and Opportunities

- The Oregon Department of Forestry (ODF) sought a technical review of the analysis work used to inform Board of Forestry discussions and decision making. ODF contracted with the Institute for Natural Resources to do the science review. After the review was completed, I was asked to be one of several copy editors on the report. I received formal acknowledgement for my contribution.
- In the spring of 2011, I shadowed Dr. Duncan at several policy proposal meetings. Dr. Duncan met with several key OSU individuals to discuss developing a preliminary proposal for a National Science Foundation, \$25m, five year proposal for a Science and Technology Center. The Science and Technology Centers (STC) are integrative partnerships and programs that support innovative, potentially transformative, complex research and education projects that require large-scale, long-term awards. STCs conduct world-class research through partnerships among academic institutions, national laboratories, industrial organizations, and/or other public/private entities, and via international collaborations, as appropriate. During the meetings they discussed important aspects of the proposal development process and putting together a proposal team with a relevant research focus and funding history.
- I was asked to create a 10 page summary of a 111 page report that was submitted to the Transportation Research Board of the National Academies. My 10 page summary may end up being offered as a shorter version to

potentially interested parties. The report was titled "The Development of an Ecological Assessment Process and Credits System for Enhancements to Highway Capacity".

- Though not part of my formal internship proposal or included as relevant hours and duties, I did complete approximately three weeks of full time work at the State of Oregon Water Resources Department. After completing two projects for them, my advisor and I ultimately decided that it was not the internship opportunity that I was looking for. I think it is important to list the projects that I completed for them. Biennially, the department normally contracts an outside company to complete a Customer Service Satisfaction Survey. In the summer of 2010, I completed this survey on behalf of the department. Through direct phone calls and an online *Survey Monkey* survey, I compiled over 250 responses from Oregon residents who had received notifications on water rights inquiries or department decisions. I also put together a document that compiled all water conservation actions that state water agencies had implemented, to date, for all 19 states in the Western Governor's Association. The research was presented in Word Document form as well as in a spreadsheet detailing actions.

Conclusions and Lessons Learned

This internship offered me a unique opportunity to observe and be involved in many different tasks and projects. There were many natural resource issues and projects that my classes did not teach me about. I also found that these tasks and projects reinforced many of the lessons I learned from my class work.

I also learned several life and career lessons from this experience.

- **Know your personal goals.** I need to identify what I do not want to do, as well as know what job duties do interest me.
- **Receive criticism as a learning experience.** I need to remind myself that criticism, negative feedback and resistance should not be taken personally, and those things just provide opportunities to learn new life lessons.
- **Respect your own ability to contribute.** One lesson that I found particularly important is that everyone has something to offer. No matter how informed or connected someone is, another perspective can offer a new and helpful addition.

- **Bring confidence with you to your work.** Through the Masters Degree process I feel I have gained confidence in my abilities to find information for myself and not rely on others for detailed direction.
- **Always give it your best effort.** I also believe that you only fail when you stop trying. Hard work, perseverance, and a good attitude will take you a long way towards your goals.
- **Be open to all opportunities.** It is important to appreciate all opportunities that come your way, even the ones you don't pursue. You never know when a promising opportunity will be presented in a non-traditional way, so keep an open mind.
- **When you don't know, ask questions.** I learned not to be afraid to ask questions. If I don't understand, there is a good possibility that someone else has questions also and you can help to ensure a common understanding.
- **Appreciate those who help you along the way.** I had the good fortune to have many people help me on this journey. I appreciate all the support I have received and I hope I can pay it forward and help someone else in the future. We all are better off when we can work together and help each other.
- **Sometimes it is just not meant to be.** Not everything will turn out the way you want it to, no matter what you do. That does not mean you shouldn't try anyway.
- **There may be no "I" in team, but one person can make a big difference.** It seems that collaboration and multi-disciplinary approaches are becoming more popular in the natural resource field. I think collaboration has the potential to reach greater success than independent endeavors because each person, organization, and perspective can bring a different and potentially crucial component. The challenges that collaborative work face include personality differences, disagreements in methods or goals, and the coordination of multiple schedules.
- **Good communication and people skills can take you a long way.** I believe that good communication skills and the ability to negotiate and compromise will go a long way in facilitating relationships. I was fortunate enough to interact with mostly very helpful and accommodating people during my tenure as an intern, but I know that there will be times when that will not be the case.

- **Keep an eye to the future, and treat everyone as though this is the beginning of a new relationship.** I should not be afraid to become involved and engage with people from all parts of a project or organization. You never know when a past occurrence will influence a future situation.

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Appendices

Internship Journal

<u>Date</u>	<u>Time</u>	<u>Duties</u>
<u>2010</u>		
8-19-10	10:00-1:00&1:30-5:00	Consolidate the ULTRA-Ex work plan into a spreadsheet and color code according to project.
8-23-10	10:00-1:00	Continue putting the work plan into the spreadsheet format
8-25-10	9:30-4:30	Finish the spreadsheet work plan and begin working on the Environmental organizations database for the Portland/Vancouver metro area. Find as many environmentally active organizations in the larger area and put them in spreadsheet format with contact info, location, and scope of reach. Create a separate document highlighting organization mission, goals and focus.
8-26-10	10:00-3:00	Continue work on the Environmental organization database and accompanying document.
8-31-10	9:30-12:30&1:00-4:30	Continue to work on the Environmental organization database and accompanying document
9-7-10	10:30-12:30&1:00-4:00	Exchange emails with ULTRA project members about upcoming workshop and RSVP list. Work on work plan spreadsheet for ULTRA project members.
9-8-10	12:30-4:30	Finish work on work plan spreadsheet and work again on the environmental organizations database and document
9-9-10	10:30-3:30	Work on EO database and document.
9-13-10	10:30-4:30	Work on ULTRA-Ex Advisory committee list, compiling names, positions, and contact information into a spreadsheet. Obtain logos from all organizations associated with ULTRA-Ex and put on one reference paper. Email project members about workshop and field trip planning.

- 9-14-10 8:00-9:00 Exchange emails regarding upcoming field trip and work shop.
- 9-16-10 11:00-5:00 Pick up car from motor pool. Drive to OWEB in Salem and search database for pictures for the SB513 booklet. Return to Corvallis and return car to motor pool. Update RSVP list for workshop and field trip and exchange additional emails regarding that weekend.
- 9-20-10 8:00-12:30&1:00-2:45 Sit in on a conference call with Anita Morzillo, Sean Gordon and Sally Duncan about the upcoming field trip and workshop, the Civic Ecology theme and possible reworking of the research questions. Catch up on emails regarding workshop and field trip. Send ULTRA-Ex team the field trip map, the direction and map to the workshop at Reed College and the agenda for Saturday's workshop. Make name tags for ULTRA team members. Print up theoretical diagrams and worksheets for field trip.
- 9-24-10 6:30-4:30 Drive to Portland and meet with ULTRA-Ex team for field trip of project locations. Distribute name tags, diagrams and worksheet to all ULTRA-Ex members. Do a roll call to ensure attendance of everyone on RSVP list. Visit several project sites including the River to the Tabor area in SE Portland, an urban riparian space in Beaverton, Vancouver Lake in Washington, a park in Vancouver, Washington, and a strip of road with permeable sidewalks in Vancouver.
- 9-25-10 8:00-4:00 Meet at Parker House at Reed College and attend the ULTRA Workshop. Pass out remaining name tags. Help organize seating and set up materials. Listen to presentations about all of the projects and themes. Sit in on group discussions about overall goals of this project and how they align with National Science Foundation merit criteria. Watch project team brainstorm ways to integrate projects through an activity that included sticky notes and poster paper. Each team member had to come up with several ways to integrate their own project/theme with all of the other projects or themes.
- 9-27-10 3:00-5:00 Exchange follow up emails with ULTRA-Ex team members following workshop weekend. Distribute document from John Harrison about ULTRA weekend and consolidation of workshop outcomes.

9-30-10 2:30-5:30 Transcribe poster paper and sticky notes from brainstorming session at workshop on integration of the different projects and themes into a Word document.

10-1-10 1:00-2:00 Meet with Sally Duncan for update on activities and upcoming projects. Discuss scheduling.

10-5-10 1:00-2:00 Meet with sally on ULTRA workshop recap.

10-8-10 3:00-5:00 Begin looking at photo options for SB513 Booklet. Ensure that photos have not been used in previous publications.

10-11-10 3:00-4:00 Meet with Sally as a follow up to the workshop and lessons learned.

10-12-10 1:00-1:30&3:00-4:30 Listen to phone interview with Sue Lurie and take notes. Transcribe notes into a word document and give back to Sue.

11-2-10 11:00-12:00 Meet with Sally and discuss updates on SB 513 booklet and specifications for the booklet.

11-9-10 11:00-2:00 Work on ULTRA project updates.

11-16-10 11:00-12:00 Meet with Sally on ULTRA-discuss simplifying research questions and conceptual diagram for general public.

11-19-10 3:00-4:00 Brainstorm with Sally Duncan on conceptual diagram again and running it by other ULTRA team members.

11-23-10 11:00-12:00 Update ULTRA documents.

11-29-10 11:00-1:00 Staff meeting at INR-updates on INR business. Make final transportation preparations for ULTRA meeting in Vancouver, Washington.

12-6-10 10:30-12:30 Meet with Kelly Chapman at Printing and Mailing Services to discuss the upcoming SB 513-Ecosystem Services and Markets booklet. Meet student, Kate, which I will be working with.

12-10-10 7:30 am-4:00 pm Leave OSU motor pool with Dr's Mary Santelmann and Anita Morzillo to attend ULTRA meeting in Vancouver,

Washington. Meeting covered research updates from several of the sub-projects as well as question and answer sessions. Return to Corvallis.

12-23-10 5:00-8:00 Review the SB513 Booklet and make note of edits needed.

12-26-10 4:00-6:00 Look over the newest version of the SB513 booklet. Make additional edits.

12-27-10 6:00-8:00 Look over the Oregon Department of Forestry science review and make copy edit suggestions.

12-28-10 1:30-4:30 Continue making copy edits of the ODF science review.

12-29-10 9:00-2:45 Finish ODF science review edits. Meet Kelly Chapman at Printing and Mailing to work on copy and layout edits for SB513 booklet.

12-30-10 1:00-4:00 Work on the literature review for the Civic Ecology theme of the ULTRA project.

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1-3-11 10:00-2:00 Work on literature review for Anita Morzillo regarding social surveys on green streets, stormwater, urban riparian spaces.

1-5-11 11:00-12:00 Meeting with Anita Morzillo to discuss work and transfer work product

1-6-11 5:00-8:00 Review and edit SB 513 Ecosystem Services and Market booklet (at home)

1-7-11 4:00-5:30 Meeting with Kate at OSU printing services to discuss booklet changes and edits

1-9-11 12:00-6:00 Additional Edits on the SB513 booklet, review INR website and make suggestions for changes in online copy.

1-11-11	6:00-8:00	Final review and edit of SB 513 booklet. (at home)
1-12-11	8:00-10:00	Meeting with Kate at OSU printing to make final edits to electronic copy and order printed booklets.
1-24-11	4:00-5:00	Meet with Sally Duncan at INR for status meeting and discuss current work and potential upcoming work
2-1-11	8:15-9:00	Meeting with Sally Duncan to discuss internship progress and goals
2-06-11	8:00-9:30	Meeting with Anita Morzillo to discuss the work I completed for her and any potential for upcoming work.
2-10-11	10-12 & 1:30-4	Creation of an ULTRA project fact sheet for distribution to project members, advisory committee, and public.
2-11-11	8:30-9:30	Finish first draft of the ULTRA Fact Sheet and submit to Sally Duncan and Alan Yeakley for approval
2-23-11	9:00-10:00	Meeting with Sally Duncan to discuss upcoming work and ULTRA project details
3-2-11	6:00-8:00	Additional Literature searches for Anita Morzillo regarding ULTRA projects and social surveys
3-4-11	12:00-2:00	Further edits on ULTRA fact sheet and addition of institutional logos.
3-9-11	1:00-2:00	Final Edits to Fact Sheet and logos for ULTRA Fact sheet
3-17 -11	1:00-12:00	Phone call with Kimberly Heavener, the new ULTRA administrative assistant. Discuss ULTRA project to date and smooth transition of workload on project. Verify she has a copy of all relevant documents thus far.
3-17-11	12:00-1:00	Meet with Mary Santelmann; discuss potential further ULTRA related work.

3-28 -11 12:00-4:00 Meet with Lisa Gaines at INR. There is a transportation and mitigation credits document that needs a 10 page synopsis created. Begin work on the synopsis document.

3-29-11 8:00-10:00 Work on the transportation document synopsis

3-30-11 10:00-11:00 Meet with Mary Santelmann for follow up on previous weeks discussion

4-1-11 8:00-11:00 Work on the INR transportation document

4-4-11 12:00-4:00 Work on the transportation document from 12-2:30. From 3:15-5 create an ULTRA field trip map, complete with site description and driving directions.

4-6-11 8:00-11:00 Work on transportation document synopsis

4-7-11 8:00-9:00 Shadow Sally Duncan and Susan Capalbo on NSP pre-proposal regarding a Science and Technology \$25 million dollar/5 year grant.

4-8-11 8:00-11:00 Work on INR transportation document synopsis

4-11-11 12:00-3:00 Work on INR transportation document synopsis

4-14-11 12:00-1:30 Shadow Sally Duncan and Susan Capalbo regarding NSF pre-proposal

4-15-11 8:00-11:00 Work on transportation document

4-20-11 9:00-11:00 Shadow Sally Duncan to discuss NSF grant proposal step and the grant proposal process

4-21-11 10:00-11:30 Meet with Sally Duncan, Susan Capalbo, and Sheri Pancake for further discussions regarding the NSF pre-proposal.

4-27-11 9:00-10:00 Work on Transportation document at INR

4-28-11 12:00-2:00 Shadow Sally Duncan and Susan Capalbo on the NSF pre-proposal

5-11-11 1:00-2:30 Meet Kuuipo at library to shadow conference call regarding upcoming Oregon Coastal data management workshop. Initial phone call discussing format of workshop and focus of objectives

5-18-11 9:00-11:00 Work on Transportation Document

5-24-11 4:00-4:15 Write emails regarding upcoming Coastal workshop and scope of involvement.

5-25-11 9:45-10:45 Meet with Kuuipo Walsh and Julie Risien to discuss upcoming workshop, objectives, and pre-workshop briefing document.

6-1-11 1:00-3:00 Create name tags for Coastal Data Management workshop.

6-13-11 9:00-3:00 Worked on the transportation summary document. Finished first draft and emailed it to Lisa Gaines. Emailed various people about upcoming projects.

6-14 -11 9:30-3:00 Researched Oregon landscapes, issues and actions for upcoming science writing project on Oregon Explorer. Emailed contacts about Oregon Explorer project and scope of work.

6-15-11 9:45-12:15 Meet with Sue Lurie to discuss Bullitt foundation project with EWEB. Research partner organizations of EWEB in relation to type of institution, legal authority/limitation, current projects, finances, etc.

6-16-11 12:00 – 5:00 Research on Bullitt foundation proposal on developing an Ecosystem services district.

6-17-11 9:00-12:30 & 2:00-5:00 Meet with Sue Lurie regarding Bullitt foundation research, continue organizational research, build conceptual diagram for potential Ecosystem Services District. Read peer reviewed journal article regarding Ecosystem Services District.

6-20-11 8:30-11:30 Continue research on organization for Bullitt foundation project. Begin to build a conceptual diagram illustrating relationships between various organizations. Review journal article for pertinent points to incorporate into project.

6-21-11 9:00-10:30& 12:00-4:30 Meet with Sally Duncan and Sue Lurie to discuss work on Bullitt foundation project thus far. Discuss current and past versions of conceptual diagram and new work project. Begin working on developing a matrix evaluating current certification schemes. Identify components of scheme, benefits, methods, certification levels, etc.

6-22-11 8:00-11:00&1:00-4:00 Research certification scheme for Bullitt foundation project. Continue creation of scheme evaluation matrix. Read background research articles on Payments for Ecosystem Services, compile notes. Set up time with Sally, Sue and Karl Morgenstern to participate on conference call regarding Monday's meeting (6/27/11).

6-23-11 9:00-12:00&2:00-5:00 Continue researching certification schemes. Email progress to Sue Lurie and Sally, Read additional peer-reviewed journal articles regarding Payment for Ecosystem Services. Exchange email with Kuuipo Walsh regarding the upcoming science writing for the Oregon Explorer projects.

6-24-11 9:00-12:00&1:30-4:00 Attended the tail end of the INR monthly meeting. Brief meeting with Kuuipo Walsh and Myrica McCune discussing upcoming Oregon Explorer/ILAP science writing project. Began background research on ILAP Project and current INR writing. Began to compile a list of sources for landscapes explorer. This list includes peer reviewed journal articles as well as government agencies websites. Continue to create and update Accreditation scheme matrix for Bullitt project.

7-1-11 8:30-10:30 Catch up on EWEB project meeting notes and read relevant journal article.

7-5-11 8:00-9:45&11:30-5:00 Meet with Sally and Sue to discuss next steps on the Bullitt/EWEB project. Begin research on Businesses with "green" or sustainable strategies, focusing on sustainable business actions, certifications, awards/recognitions, and environmental partnerships/affiliations. Work on background informational sources for Oregon Explorer project.

7-6-11 10:15-4:30 Catch up on emails regarding ongoing projects and upcoming meetings. Meet Myrica McCune to discuss Western Landscapes portal science writing. Talk about the list of deliverable and the content of the stories I will be writing. Discuss the project further with Janine Salwasser, the

project coordinator. Commit to videographing a half dozen or so interview for the Web portal. Discuss timing and content. Work on EWEB project Green Companies information sheet. Work on wildlife habitat module background information compilation. Make apt with Sally to discuss INR business model for my internship report.

7-7-11 10:30-2:15&2:45-4:30 Begin gathering information from shared portal on ILAP site regarding Wildlife Habitat Module. Start to write Wildlife Habitat Module Portal piece. Background research on various aspects and components of the module methods for use in writing. Edit the Fuel Treatment Economic Analysis module summary and submit to Janine. Start research on the LANDFIRE piece.

7-11-11 9:50-12:15&12:40-5:00 Catch up on project email. Work on science writing background research for the Wildlife Habitat Conditions Module. Attend meeting with Renee Davis-Born, Kuuipo Walsh, Myrica McCune, Mark Hempel, Darell Oldfield, Ruth (from Library-content editor), regarding the Western Landscapes Explorer. First part of meeting discussed updates regarding other projects. Majority of meeting discussing project timeline and launch dates. Discuss data types and tools that will be created for the portal as well as my progress with the science writing and goals of the articles I will be writing. More discussion on who the desired audience of the articles is as well as how early assignments will fit into later more comprehensive pieces for the project.

Begin to explore the shared point site for the ILAP site for background information on the different science pieces. Contact project heads for upcoming conversations regarding their modules. Review existing fact sheets and webinars for background information and begin to compile lists of questions for the articles.

7-12-11 9:00-10:30&12:00-1:30&2:15-4:00 Work on ILAP background research. Communicate via email with several ILAP module heads to set up time for phone conversations regarding their project. Watch Climate Change and Vegetation Module for background information, developing a question sheet for phone interview. Meet with Sally, Sue, Hillary, and Kelly to discuss the EWEB/Bullitt project and where to go from here. Meeting with Sally to discuss the INR business model for internship Business report. Discuss with Sue and

Sally development of a conceptual map for the EWEB/Bullitt project and how the pieces fit together.

7-13 -1 12:00-5:00 Background research on ILAP module, construction questions to ask module Lead, Jessica Halofsky about her research. 2:00 Phone call interview with Jessica. Follow up organization of information and begin writing the summary piece.

7-14-11 8:30-11:30 & 1:15-4:30 Background research on Dominique Bachelet's ILAP module. 9:30 Phone interview with Dominique regarding the module. Organization of information. Background research on Xiaoping's module. 2:00 phone interview with Xiaoping. Continue to work on summaries for different modules, particularly the Forest Fuel Characteristics module (Jessica Halofsky). More background research and watch webinar on Rebecca Kennedy's module.

7-15-11 8:30-11:30& 12:30-4:30 Continue background research on Rebecca Kennedy's ILAP module. Phone interview with Rebecca Kennedy regarding her module. Compile notes on webinar and conversation. Begin first draft of summary on module.

7-18 -1 8:10-11:10 & 1:10-4:00 Review background information on ILAP vegetation and GIS module preparing for conversation with Josh Halofsky. Phone interview with Josh Halofsky. Finish the write up on Fuel Characteristics module and send off to Janine and Myrica for comments. Have impromptu discussion with Janine on the specific framework of the module write ups. Exchange emails with Myrica and Janine regarding a quick meeting the next day to talk about write up structure. Phone interview with Anita Morzillo regarding Wildlife Habitat Conditions module. Create a shortened and simplified version of the wildlife habitat conditions module write up to use as a comparison for Tuesday's meeting. Correspond with final ILAP module lead to schedule phone interview for Wednesday morning.

7-19-11 9:00-12:00&2:00-4:30 Work on write up for ILAP modules. Meet with Myrica and Janine to discuss write-up structure and scope. Decided on 2-3 sentences of problem statement/issue driving research (to be developed with help from module leads) and 3-5 sentences of what ILAP is doing to

address the problem. Determine audience is non-scientific and non-academic average person. Include in write up the research questions the modules are addressing and potentially the overall goal of the work.

7-20-11 8:15-11:45& 2:30-4:45 Background review on rural economies module in preparation for 9:00 phone interview with Claire Montgomery. Spoke to Claire Montgomery about her ILAP module. Traded emails with ILAP lead Josh Halofsky regarding first draft of Vegetation conditions write-up and incorporated his edits into a second draft. Communicate with other ILAP project personnel regarding upcoming trips for pachyderm video interview and for clarifications on terminology. Developed a first draft of the Rural Communities module write up. Meet with Sally Duncan, Sue Lurie, Hillary and Kelly regarding update to Bullitt/NIPA project.

7-25-11 9:15-11:00&1:00-5:15 Work on ILAP module write up and incorporate edits from module leads into the drafts. Exchange emails with module leads and Oregon Explorer contact regarding module write ups. Watch webinar to further inform myself about climate change research.

7-26-11 11:00-3:00 Work on ILAP module write ups. Send write ups to module leads for feedback. Incorporate feedback into the write-ups.

7-27-11 11:00-1:15 Work on ILAP module write ups and edits.

7-28-11 10:30-5:00 Research and write up about Department of Interior Landscape Conservation Cooperatives and Climate Science Centers. Trade emails with potential interviewees about trip in August to do ILAP video interviews. Send additional write-ups to Oregon Explorer contacts. Review module write ups for additional edits. Begin with IRB training for Bullitt Project.

7-29-11 11:00-5:00 Finish and pass IRB training for the Basic Course for Social/Behavior Research Investigators and Key Personnel. Integrate edits into ILAP write ups. Start on background research for additional ILAP write-ups, specifically Tapash.

8-1-11 11:00-5:00 Discuss with Janine the ILAP write-ups and send drafts for her edits. Research the Conservation Landscape Cooperatives. Create the first draft of the FireScope write-up.

8-2-11 10:45-3:30 Background research and create a write-up for the Tapash Sustainable Forest Collaborative. Start background research on IMAP. Exchange emails with Miles Hemstrom and other ILAP users about interviews.

8-3-11 11:00-2:15 Research and writing of the IMAP write up. Email and phone communication with potential interviewees for ILAP pachyderm project. Confirm two appointments for August 11th.

8-4-11 1:00-5:00 Look into camera options for ILAP video interview. Create short write up for the Cooperative Landscape Conservation. Read and edit IMAP, and FireScape documents. Start background research for next set of ILAP articles- Explore NW and SW landscapes. Leave voice mails for two people to schedule interviews, talk with one.

8-5-11 12:30-1:30 Background research on Exploring NW landscapes

8-8-11 11:15-4:30 Meeting with Sally, Sue, Julie, and Rob regarding status of current Bullitt research and potential future funding proposals. Continue background research on NW landscapes. Meeting at library with media services regarding equipment rental and operation.

8-9-11 11:30-4:30 Research on success components of environmental certification schemes. Mostly scholarly journal research. Confirm Thursday's interviews in Portland for ILAP. Research purchasing of external hard drive for storing video footage.

8-10-11 11:30-1:30&2:00-4:45 Buy external hard drive for ILAP video project. Check out camera equipment from library, review operating instructions. Emails sent to potential new interviewees regarding ILAP. Review of ILAP interview talking points. Continue to work on Bullitt annotated bibliography regarding success of environmental accreditation/eco-labeling schemes.

8-11-11 8:00-11:30&12:15-4:00 Drive to Portland for ILAP interviews. Meet with Ayn Shlisky and Louisa Evers at federal building in downtown Portland. Video the interviews. Upon return to Corvallis, check video equipment back into library and download video from camera memory card onto external hard drive for editing.

8-12-11 11:30-4:30 Work on confirming trip to Washington to meet with Ryan Haugo and Angus Brodie for following Tuesday. Make trip reservations and compile directions. Work on Bullitt accreditation/eco-labeling scheme annotated bibliography, plus summary of key points.

8-15-11 3:00-9:30 Pick up camera equipment from library. Confirm appointments with Angus Brodie and Ryan Haugo for Tuesday, August 16th. Pick up car from motor pool. Drive to Olympia, Washington.

8-16-11 9:15-11:30&12:00-7:30&8:00-10:45 Meet Angus Brodie at Washington State Department of Natural Resources. Video tape his user testimonial regarding ILAP. Drive to Oak Creek State Wildlife Area (1/2 hour west of Yakima) and meet Ryan Haugo of The Nature Conservancy. Drive to lookout spot within the wildlife area and videotape his user testimonial of ILAP products. Drive back to Corvallis and turn car back into motor pool.

8-18-11 11:30-1:45&2:15-3:30 Return the video equipment to the Library. Transfer video from camera memory card to external hard drive. Send off ILAP write-ups to additional editors and incorporate edits into documents. Create a one page summary of "Successful Certification Schemes and Eco-labeling" for Monday's meeting with Sue, Sally, Julie and Rob. Follow up with Janine on ILAP interviews and future ILAP write ups.

8-19 -11 8:15-11:30&2-4:30 Go with Sue Lurie to visit the Horning's at their property, north of Monroe. Discussion was a follow up about their experiences with OWEB and BPA about putting part of their riverfront land into a land trust. Greenbelt Land Trust has been the intermediary for the process. It is taking a lot of time and money as it is considered a pilot project. I took notes during the discussion and had a small part of the discussion. I cleaned up the meeting notes and sent them to Sue and Sally to be stored on the INR-I drive. Write and address "Thank you notes" for ILAP interviewees and Bruce Taylor from Defenders of Wildlife (photos for SB513 booklet). Email some potential ILAP users to see if they are interested in participating in the user testimonials.

8-22-11 11:15-12:30&1:30-3:45 Attend meeting with Sally, Julie and Rob regarding eco-labeling and certification and incorporating ecosystem services into life cycle assessments. Discuss ongoing projects as well as how to

further the research. Begin research regarding using water as a proxy for biodiversity-ecosystem service and the Eco-LCA project from Ohio State University. Create a user account in the Ecosystem Commons and explore site as well as post a discussion questions regarding ecosystem services and life cycle assessments.

8-23-11 12:00-3:15 Create an account on the Ecosystem Commons and explore site. Start background research on Life Cycle Assessments and Ecosystem Services

8-24-11 1:00-4:00 Continue the background research on Life Cycle Assessment and Ecosystem Services. Start the background research on Biodiversity indicators and proxies. Set up meeting for 8/29 regarding ILAP stories and get updates on remaining science writing articles.

8-25-11 11:00-3:00 Work on the ILAP story of Exploring NW Landscapes. It is supposed to be a very "top level" description of the climate, landscape, and natural features of Oregon and Washington.

8-26 -11 12:30-4:30 Edit the "Explore Northwest Landscapes" story. Run a short search on water quality and biodiversity to explore research on the correlation between the two. Research and write the "Explore Southwest Landscapes" story for ILAP/Oregon Explorer.

8-29-11 10:00-11:15&1:00-3:00 Meet with Myrica McCune, Renee Davis-Born, and other Western Landscape Explorer partners to discuss current project. Give them updates on my science writing and discuss resolution requirements for pictures I will find to accompany my stories. Finish editing the NW and SW landscapes stories and send to Myrica for comments. Work on the literature reviews for the Life Cycle Assessments and Water quality as a proxy for biodiversity.

8-31-11 12:00-2:15&2:45-3:30 Review Life Cycle Analysis documents and start compiling a summary.

9-1-11 12:00-4:30 Email ILAP module leads and collaborative project personnel to ask for photos for ILAP stories. Work on LCA summary.

- 9-2-11 12:30-3:00 Continue working on LCA summary and bullet points.
- 9-6-11 12:00-2:15&2:45-5:00 Set up appointment with Media Services to edit ILAP interviews. Catch up on emails regarding photos for ILAP stories and additional ILAP interview. Start a collection of ILAP photos. Review ILAP story draft edits from Myrica and incorporate edits into final versions.
- 9-12-11 11:30-1:30 & 2:15-4:15 Meet with Sally and Rob regarding Life Cycle Assessments and corporations that may be willing to become involved with sustainable business practices in both the Portland and Eugene area. Email Myrica and Janine the most recent versions of ILAP stories. Begin video editing of the ILAP user testimonials.
- 9-13-11 12:00-2:00 Continue work on editing ILAP video, adding text to video clips listing name and organization the user worked for.
- 9-14-11 1:00-2:00 Work on securing additional photos for the ILAP stories. Make arrangements to film an additional ILAP user testimonial in Springfield (trip subsequently cancelled).