

**NOAA Fisheries
Portland Office
Internship Program**



Coastal Management Policy Analyst Intern

Location:

Portland, Oregon (with potential to work remotely)

Reports to:

Kris Wall, NOAA West Coast Regional Coastal Management Specialist

Duration:

Part-time, Temp., ~10 hr/week for 10 weeks during Spring 2012 (with possibility of extension)

Project Background:

This position is located within NOAA's National Ocean Service (NOS), a separate line office in NOAA than NOAA Fisheries. Within NOS is NOAA's Office of Ocean and Coastal Resource Management (OCRM), which is responsible for administering the federal Coastal Zone Management Act (CZMA). OCRM is headquartered in Silver Spring, MD, but has one staff person in Portland, OR who would be the supervisor for this position. For more information on OCRM, please visit: <http://coastalmanagement.noaa.gov/>.

The National Coastal Zone Management (CZM) Program is a voluntary partnership between the federal government and U.S. coastal states and territories. To meet the goals of the CZMA, the National CZM Program takes a comprehensive approach to coastal resource management—balancing the often competing and occasionally conflicting demands of coastal resource use, economic development, and conservation. Under the CZMA, states with federally-approved coastal management programs are allowed to review certain federal activities and determine whether the proposed activities are consistent with the state's coastal program. State Coastal Programs are required to update their programs' policies with NOAA in order to maintain a current program that reflects the state's existing policies and regulations. Currently, both the Oregon and Washington Coastal Management Programs are undergoing a comprehensive effort to submit updates to their Local Coastal Programs (Oregon) and Shoreline Master Programs (Washington) to NOAA for review incorporation into each state's program.

Job Description:

NOAA's Office of Ocean and Coastal Resource Management (OCRM), seeks a graduate or upper-level undergraduate student to assist with the task of reviewing and processing program changes made to state coastal management programs. For each state coastal program change submission, the intern will be responsible for reviewing and evaluating the submission in accordance with OCRM policies and guidelines, and drafting a policy analysis memorandum and a recommendation to OCRM staff.

Interns will have the option of working at the NOAA office in Portland or working remotely. If working remotely, the student will be responsible for supplying her/his own computer equipment, phone, and work environment. Work can be performed from the student's

location, but will require regular phone check-in meetings and may require an occasional trip to the NOAA office in Portland at the student's expense.

This internship is a great opportunity for a student to become familiar with a range of local comprehensive plans and coastal policies in Oregon and Washington, as well as to learn more about the intersection of federal, state, and local coastal management, and to work closely with staff from NOAA's OCRM.

Primary Responsibilities:

- Review each state's submission for completeness
- Evaluate policies the states have identified as enforceable policies to check for consistency with CZMA regulations and guidance
- Draft a policy analysis memorandum and recommendation to OCRM staff
- Track OCRM's review of the submission, including coordination with OCRM staff
- Assist with obtaining any additional information from the state that may be required

Qualifications:

Required:

- An interest in coastal management and federal consistency work
- Strong written and verbal communication skills
- The ability to analyze and synthesize complex information concisely
- An analytical mind and detail oriented tendencies
- The ability to work with limited supervision

Preferred:

- Familiarity with the Coastal Zone Management Act and Federal Consistency
- Familiarity with coastal management and/or land use planning, especially in Oregon or Washington

Compensation:

Compensation is a maximum of \$1030 per term at a rate of \$10.27 per hour. The number of internships hours may vary depending on student or position needs. Additionally, to the extent possible there will be opportunities for learning, training, networking, and professional development.

To Apply:

Send cover letter, resume, writing sample/excerpt (1-3pp, policy-related preferred), proof of at least half time enrollment for Spring 2012 (e.g. letter from advisor), and copy of unofficial transcript to Lauren Senkyr at lauren.senkyr@noaa.gov

Deadline:

Please submit application materials by **5 PM on Wednesday February 15, 2012.**

Contact:

For position-specific questions contact Kris Wall at kris.wall@noaa.gov, or 503-231-2221. Questions pertaining to the program requirements or hiring process can be directed to Lauren Senkyr, Lauren.Senkyr@noaa.gov (503) 231-2110 or Nancy Munn, Nancy.Munn@noaa.gov (503) 231-6269.

**NOAA Fisheries
Portland Office
Internship Program**



Communications Intern

Location:
Portland, Oregon

Reports to:
Katherine Cheney, NOAA Fisheries Northwest Region Senior Communications Specialist

Duration:
Part-time, Temp., ~10 hr/week for 10 weeks during Spring 2012 (with possibility of extension)

Project Background:
NOAA Fisheries' Northwest Region seeks to align, coordinate and strengthen communications to achieve its science, stewardship, and service objectives for our nation's living marine resources in Washington, Oregon and Idaho. In 2011, NOAA Fisheries' Northwest Region adopted a Communications Vision and Strategy to integrate pro-active communications into regional programs and policies; to communicate NOAA's mission and activities; and to provide stakeholders useful and accessible information.

To advance the Northwest Region's Communications Vision and Strategy, the Regional Communications Team develops strategic communications materials to relay our mission, activities, and messages to stakeholders and the public. In addition, the Communications Team is working to broaden the venues through which we convey this information. We focus on the most current scientific information and the way in which the science informs NOAA Fisheries Northwest Region's management decisions.

Job Description:
NOAA Fisheries' Northwest Region is recruiting a Communications Intern for the Portland office. The Communications Intern will participate in communications planning sessions to help guide the direction and strategy of various communications efforts and (s)he will help to advance the Communications Vision and Strategy by developing key communications materials, including but not limited to:

- Fact sheets
- Graphic visuals
- Web stories
- Short videos
- Social media content
- Frequently Asked Questions

The development of communications materials will focus on thematic areas, such as:

- Habitat restoration and protection
- Fish passage
- Salmon recovery
- Marine mammal protection
- Sustainable fisheries

For examples of communications products, please visit website <http://www.nwr.noaa.gov/nwrcms2/>

Primary Responsibilities:

The Communications Intern will work with the Senior Communications Specialist and Communications Team to develop communications materials and distribution plans for each assigned topic. In addition, the Communications Intern will provide ideas for communications approach and content development for various topics. Skills Acquired through internship will include an ability to develop and implement strategic communications plans, knowledge of a diverse set of audiences and skill set for corporate communications efforts.

Qualifications:

- Ability to plan for and develop multi-media materials through various communication vehicles
- Excellent writing skills
- Skills in developing content for web and social media venues
- Degree or working toward a degree in communications, environmental studies, natural sciences or related field
- Collaborator who enjoys working in fast paced and challenging work environment
- Flexible individual who is willing to learn and contribute to communications mission

Compensation:

Compensation is a maximum of \$1030 per term at a rate of \$10.27 per hour. The number of internships hours may vary depending on student or position needs. Additionally, to the extent possible there will be opportunities for learning, training, networking, and professional development.

To Apply:

Send cover letter, resume, writing sample, proof of at least half time enrollment for Spring 2012 (e.g. letter from advisor), and copy of unofficial transcript to Lauren Senkyr at lauren.senkyr@noaa.gov

Deadline:

Please submit application materials by **5 PM on Wednesday February 15, 2012.**

Contact:

For position-specific questions contact Katherine Cheney at Katherine.Cheney@noaa.gov, or 503-231-6730. Questions pertaining to the program requirements or hiring process can be directed to Lauren Senkyr, Lauren.Senkyr@noaa.gov (503) 231-2110 or Nancy Munn, Nancy.Munn@noaa.gov (503) 231-6269.

**NOAA Fisheries
Portland Office
Internship Program**



Fish Passage Engineer Intern

Location:
Portland, Oregon

Reports to:
Aaron Beavers, Hydraulic Engineer E.I.T.

Duration:
Part-time, Temporary, ~10 hours/week for 10 weeks during spring quarter 2012

Project Background:
One of the responsibilities of NOAA Fisheries is to ensure the safe and timely passage of ESA listed salmon and steelhead past in-stream barriers. To fulfill this responsibility NOAA Fisheries employs biologist and engineers to analyze current and potential barriers and develop studies and designs which aim to provide a level of upstream and downstream passage commensurate to non-barrier conditions. As fish passage technology moves forward there is a corresponding need to develop new analytic tools to better aid the design and evaluation of fish passage projects. Current areas of interest are the hydraulics of steep rough channels and tide gates. This project will aid in development of fish passage criteria for these structures, as well as to provide project designers and resource managers with more effective tools to conceptualize, construct, and monitor their projects.

Job Description:
May conduct limited literature review and provide abstract summary of (1) engineering methods for designing steep rough channels and (2) CFD applications for modeling fish passage structures. May include limited field work performing topographical survey of existing fish passage structures. All applicants will required to program using Visual Basic in Microsoft Excel to create 1D fish passage models. The most qualified applicants will be required to work in OpenFOAM to create and run 3D fish passage models. A written summary of the work performed is required to document the project at the end of the term.

Primary Responsibilities:
Developing, constructing, and running hydraulic models of fish passage structures.

Qualifications:
The most qualified applicants should be capable of (1) constructing and running open channel hydraulic models using OpenFOAM open source CFD software, (2) write complex Visual Basic programs in Microsoft Excel, and (3) completed senior or advanced level coursework in open channel hydraulic theory or design.

At a minimum applicants should have a moderate ability to program in Microsoft Excel using Visual Basic.

Undergraduate and graduate students are welcome to apply. Applicants do not need to have a background in fish passage design. Engineering background is preferred but not required.

Familiarity with engineering software such as HY-8, HEC-RAS, FishXing, or any 2D or 3D hydraulic model is advantageous.

Compensation:

Compensation is a maximum of \$1030 per term at a rate of \$10.27 per hour. The number of internships hours may vary depending on student or position needs. Additionally, to the extent possible there will be opportunities for learning, training, networking, and professional development.

To Apply:

Send cover letter, resume, proof of at least half time enrollment for Spring 2012 (e.g. letter from advisor), and copy of unofficial transcript to Lauren Senkyr at lauren.senkyr@noaa.gov If available, please include examples of programming in Microsoft Excel as well.

Deadline:

Please submit application materials by **5 PM on Wednesday February 15, 2012.**

Contact:

For position-specific questions contact Aaron Beavers, Aaron.Beavers@noaa.gov (503) 231-2177. Questions pertaining to the program requirements or hiring process can be directed to Lauren Senkyr, Lauren.Senkyr@noaa.gov (503) 231-2110 or Nancy Munn, Nancy.Munn@noaa.gov (503) 231-6269.

More information about the Northwest Regional office of NOAA Fisheries can be found here:
<http://www.nwr.noaa.gov/nwrcms2/>

**NOAA Fisheries
Portland Office
Internship Program**



GIS Mapping Intern

Location:
Portland, Oregon

Reports to:
Nancy Munn, Habitat Conservation Division, ESA Policy Analyst

Duration:
Part-time, Temporary, ~10 hours/week for 10 weeks during spring quarter 2012

Project Background:
NOAA Fisheries is seeking to develop a GIS mapping tool that will aid biologists in the Habitat Conservation Division in Endangered Species Act (ESA) consultations. Through ESA consultations, NOAA biologists are responsible for determining whether or not proposed projects will have adverse effects on ESA-listed species or their critical habitat. The focus area of this project will be the lower Willamette River from Willamette Falls to the confluence with the Columbia River. There are four threatened salmon populations as well as other ESA-listed species in this complex and diverse planning area. The GIS mapping tool will collect information and organize it in a way that is useful at the spatial scale of project consultations.

More information about NOAA Fisheries, the Endangered Species Act, and salmon listings in the Lower Willamette River can be found on the NOAA Fisheries Service Northwest Regional Office website: <http://www.nwr.noaa.gov/nwrcms2/>

Job Description:
The successful applicant will be given all supporting information such as Recovery Plans and technical documents. The applicant will review existing GIS information, and create a new GIS database for the lower Willamette River that summarizes the required information such as the distribution and timing of fish populations and life stages, limiting factors for salmon recovery within the reach, physical habitat characteristics, water quality information, viability criteria data, potential and completed recovery or restoration actions. There would also be a data layer with information on completed and ongoing ESA consultations.

Verbal and written communication with various federal and state biologists will be required. Review of existing technical documents will also be required. The successful applicant will be fluent in GIS.

Primary Responsibilities:
The GIS Mapping Intern will determine which GIS platform to use. The GIS Mapping Intern will then review the relevant information, and develop data layers within the GIS platform.

Skills Acquired through Internship:

- Ability to develop a unique and very useful GIS tool that will be a prototype for future reach-scale GIS databases.
- Knowledge of a diverse set of data relevant to the lower Willamette River
- Networking with federal, state, and tribal biologists and natural resource specialists

Qualifications:

- Completed course work in biology or related natural resource field.
- Strong working knowledge of GIS and data systems.
- Ability to synthesize a diverse range of databases.

Compensation:

Compensation is a maximum of \$1030 per term at a rate of \$10.27 per hour. The number of internships hours may vary depending on student or position needs. Additionally, to the extent possible there will be opportunities for learning, training, networking, and professional development.

To Apply:

Send cover letter, resume, proof of at least half time enrollment for Spring 2012 (e.g. letter from advisor), and copy of unofficial transcript to Lauren Senkyr at lauren.senkyr@noaa.gov

Deadline:

Please submit application materials by **5 PM on Wednesday February 15, 2012**.

Contact:

For position-specific questions or questions pertaining to the program requirements or hiring process, contact Nancy Munn, nancy.munn@noaa.gov (503) 231-6269.

**NOAA Fisheries
Portland Office
Internship Program**



Physical Scientist Intern

Location:
Portland, Oregon

Reports to:
Janine Castro, Geomorphologist, NOAA Fisheries and US Fish and Wildlife Service

Duration:
Part-time, Temporary, ~10 hours/week for 10 weeks during spring quarter 2012

Project Background:
NOAA Fisheries supports stream restoration both through their Restoration Center and through the use of programmatic biological opinions, which streamline the Endangered Species Act permitting process for projects whose primary goal is salmon habitat recovery. There are a variety of programmatic biological opinions under which stream restoration actions are covered, depending upon the lead federal agency. Common covered restoration actions include large wood placement, dam removal, levee set-back and removal, instream habitat complexity, side channel construction, and channel reconstruction.

Channel reconstruction for the purpose of stream restoration has become a common restoration action in the Pacific Northwest, especially in Oregon, over the last decade. During the summer of 2009, three channel reconstruction projects were implemented in eastern Oregon. Each project included reconstruction of the physical stream channel and some level of floodplain reconstruction. All three projects included structural controls, such as riffles and weirs, and side channels for increased habitat. Each plan included vegetative re-establishment. While similar in scope and complexity, these three projects were designed and permitted in completely different ways. One had very detailed engineering drawings and two-dimensional modeling, while another had more of a conceptual plan and one-dimensional modeling. One went through an individual permitting and consultation process, while another went through a streamlined process.

Job Description:
The successful applicant will be given all design, permitting, and consultation materials for three channel reconstruction projects and then will compare projects, highlighting both commonalities and differences in project development, design, permitting, and implementation approaches. A written comparison will include specific details, such as the technical design approach and implementation plan, dewatering and rewetting plans, erosion control plans, as well as more general comparisons of the permitting process (individual versus nationwide 404 permit, programmatic versus individual consultation). Based on this comparison, an identification of

potential opportunities to further streamline restoration projects, along with potential risks of reduced oversight, should also be described.

Verbal and written communication with various project managers will be required throughout the project. At least one overnight trip to the field sites, with significant field work, will also be required. Meetings on either Tuesdays or Thursdays during the internship period will be required.

Primary Responsibilities:

Compilation and analysis of project data, review of permit applications and biological opinions, interviews with project sponsors, summarization of project similarities and differences, identification of opportunities and risks, and a written and oral presentation of the findings.

Qualifications:

Graduate students with an undergraduate education in any of the following areas: physical geography, geology, geomorphology, environmental science, civil or water resource engineering, geosciences, or closely related field. Familiarity with engineering plans is highly recommended. A strong background in fluvial processes will be extremely beneficial.

Compensation:

Compensation is a maximum of \$1030 per term at a rate of \$10.27 per hour. The number of internships hours may vary depending on student or position needs. Additionally, to the extent possible there will be opportunities for learning, training, networking, and professional development.

To Apply:

Send cover letter, resume, proof of at least half time enrollment for Spring 2012 (e.g. letter from advisor) and copy of unofficial transcript to Lauren Senkyr at lauren.senkyr@noaa.gov

Deadline:

Please submit application materials by **5 PM on Wednesday February 15, 2012.**

Contact:

For position-specific questions contact Janine Castro, Janine.Castro@noaa.gov (503) 736-4468. Questions pertaining to the program requirements or hiring process can be directed to Lauren Senkyr, Lauren.Senkyr@noaa.gov (503) 231-2110 or Nancy Munn, Nancy.Munn@noaa.gov (503) 231-6269.

More information about the Northwest Regional office of NOAA Fisheries can be found here:
<http://www.nwr.noaa.gov/nwrcms2/>

**NOAA Fisheries
Portland Office
Internship Program**



Restoration Project Monitoring Intern

Location:
Portland, Oregon

Reports to:
Megan Callahan Grant, Marine Resource Specialist, NOAA Fisheries Restoration Center

Duration:
Part-time, Temporary, ~10 hours/week for 10 weeks during spring quarter 2012

Project Background:
The NOAA Restoration Center is involved in restoration planning for the Portland Harbor Superfund Site. NOAA and the other natural resource trustees are working with potentially responsible parties from the Superfund Site to identify restoration opportunities and implement high-value restoration projects. Restoration project construction in Portland Harbor may begin as early as Summer 2012.

A key component of the long term success of these restoration projects will be monitoring their effectiveness to determine whether or not the restoration sites function as intended and provide benefits to potentially injured species in Portland Harbor. The NOAA Restoration Center is looking for an intern to assist with developing a statistically rigorous monitoring plan for potential restoration projects in Portland Harbor.

More information on the Portland Harbor Superfund Site, the Trustees, and restoration planning efforts can be found at <http://www.fws.gov/oregonfwo/Contaminants/PortlandHarbor/>

Job Description:
The main focus of this internship will be to develop a monitoring plan that can serve as a template for restoration projects implemented through Portland Harbor settlements. The successful applicant will review existing monitoring plans and protocols being used in the Lower Columbia and tributaries, and at other natural resource damage sites, and use this information to develop a statistically based study design. Preparation of this monitoring plan will include review of background information on the Portland Harbor Natural Resource Damage Assessment case and other similar cases including the focus species and their habitats and the types of compensatory habitat restoration that are likely to occur in the harbor.

Primary Responsibilities:
Development of a statistically rigorous study design and documentation of the design in a written monitoring plan. Gathering of preliminary cost estimates for various monitoring components.

Qualifications:

Graduate students with an undergraduate education in any of the following areas: environmental science, biology, statistics, or other related field are eligible for this position. Some graduate student coursework in statistics is preferred. The most qualified applicants will also have experience with aquatic habitat monitoring and monitoring plan design.

Compensation:

Compensation is a maximum of \$1030 per term at a rate of \$10.27 per hour. The number of internships hours may vary depending on student or position needs. Additionally, to the extent possible there will be opportunities for learning, training, networking, and professional development.

To Apply:

Send cover letter, resume, proof of at least half time enrollment for Spring 2012 (e.g. letter from advisor) and copy of unofficial transcript to Lauren Senkyr at lauren.senkyr@noaa.gov

Deadline:

Please submit application materials by **5 PM on Wednesday February 15, 2012.**

Contact:

For position-specific questions contact Megan Callahan Grant, Megan.Callahan-Grant@noaa.gov (503) 231-2213. Questions pertaining to the program requirements or hiring process can be directed to Lauren Senkyr, Lauren.Senkyr@noaa.gov (503) 231-2110 or Nancy Munn, Nancy.Munn@noaa.gov (503) 231-6269.

More information about the Northwest Region of the NOAA Restoration Center can be found here: <http://www.habitat.noaa.gov/restoration/regional/northwest.html>