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South King County River and Floodplain Management

Emily Amos
Western Washington University

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COLLEGE OF THE ENVIRONMENT



Internship Title: River and Floodplain Management in South King County

Student Name: Emily Amos

Internship Dates: 3/14/22 - 6/10/22

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STUDENT SIGNATURE *Emily Amos*

DATE: 6/15/22

I. STUDENT/INTERN INFORMATION

Name: Emily Amos	W#: W01366635
Major: Geography	Concentration: NA
Internship Title: River and Floodplain Management in South King County	
Period of Internship: 3/14/22 - present	
Avg. Hours per Week: 15.47	Total Hours Worked: 154.75

II. HOST INSTITUTION INFORMATION

Institution Name: King County – Natural Resources and Parks, Water and Land Resources Division
Institution Address: 401 Fifth Avenue Seattle, WA 98104
Institution Mission: Restoring rivers and reducing flood risk.
Supervisor Name and Title: Chris Brummer, Supervising Engineer
Supervisor Contact Information: Chris.brummer@kingcounty.gov 206-477-4655

III. DESCRIPTION

Provide a brief description of the project or program on which you worked, the objectives of that project or program, and your role as an intern within that project or program:

This Spring I was an intern with King County's River and Floodplain Management section of the Natural Resources and Parks Department. Specifically, I worked within the Cedar/Sammamish and White River Basins Unit on a variety of program management and strategic communications materials. This section of the Dept. Of Natural Resources and Parks (DNRP) conducts work on behalf of the King County Flood Control District, whose mission is to bring a comprehensive approach to flood management and to provide funding to improve the County's aging and inadequate flood protection facilities (King County Flood Control District). Since 1990, 13 federally declared flood disasters have occurred in King County (King County Flood Control District).

The project that I spent my time working on was the White River Pacific Right Bank Flood Protection Project. In January of 2009 the White River significantly flooded neighborhoods and a county park in the City of Pacific. The overall goal of this Capital Improvement Project is to reduce the potential for White River flooding and to improve environmental conditions for ESA-listed Chinook salmon, other wildlife and more. Design alternatives (that have yet to be decided on) include many components that will happen over multiple years including property acquisition, levee construction and floodplain restoration along the right bank (River and Floodplain Management Section). Currently, the project is in the feasibility and environmental review stage, and a draft Environmental Impact Statement (EIS) is being prepared in order to evaluate project alternatives.

My position consisted primarily of remote office work, shadowing the team's program manager and leading engineer. These tasks were under the umbrella of program management and communications within our basin unit. I worked on a range of projects including the coordination of reviews to a draft Sample Plan Communication Strategy and other outreach materials, development of a map using ArcGIS Pro, coordinating/planning a meeting between multiple agencies for updating the White River Spotters Guide, a site visit to the City of Pacific, preparations for the community event of Pacific Days and multiple training sessions offered virtually by King County.

IV. DUTIES AND RESPONSIBILITIES

Provide a list of your specific duties and responsibilities as an intern:

Over the course of my time with King County, I worked on a wide array of jobs. Part of this position involved being very familiar with working in Microsoft Teams, and I had access to all the River and Floodplain Management (RFMS) Teams channels and drives. Every week I participated in multiple virtual meetings with various people, for example, monthly meetings with my Cedar/Sammamish/White River basin team and the environmental consultants overseeing the Pacific Right Bank project.

One of my largest projects involved coordinating the review of edits to a Sample Plan Communication Strategy that is part of the outreach and communications of the draft Environmental Impact Statement (EIS) for this flood protection project. For materials like these, reviews are first made by the basin team, and communications and technical teams within the section, before moving onto review by the Water and Land Resources Division and then the Dept. Of Natural Resources and Parks. I helped to edit and resolve comments from these teams on both the Communication Strategy and all outreach materials being created for the public. The outreach materials include Temporary Construction Easements, signs, maps, a website update, letter templates and property access preference templates. I submitted all of these items for review.

Using my King County ArcGIS Pro license, I helped to design a site map for the proposed Offsite Remedial Investigation of contaminated water from a former dumpsite that lies beneath Pacific City Park. Design of the final flood protection project (most likely setting back the original levee) will not be complete until an analysis of the contaminated waste and environmental impacts is finished. Using aerial footage from 2019, the map I designed includes the approximate direction of groundwater flow, approximate extent of dumpsite contamination and the proposed sampling areas. This map will be printed on project signs to be posted around the time sampling takes place.

In addition to the Pacific Right Bank project, I coordinated and facilitated a meeting between agencies and stakeholders who use the White River Spotters Guide during

flood season. This field guide needed structural updates to make it more user friendly for people out in high-flow events monitoring the White River for flood risk. Attendees of this meeting were from the Army Corp of Engineers, the City of Pacific, the City of Auburn, the City of Sumner, Pierce and King Counties, and Pierce County Fire and Rescue. This guide is one of the first steps in alerting the Flood Warning Center of rising river levels and potential floodwaters.

V. LEARNING OBJECTIVES

Describe what you learned from your internship and how this experience contributed to your educational goals:

This was one of the most valuable learning experiences that I've ever had; one which closely aligns with the environmental work I see myself doing in the future. One of my biggest take-aways from my time with King County is the skill and art of task and time management. There will always be room for improvement, but this job forced me to become much more comfortable navigating organizational systems and coordinating schedules between many colleagues. In addition to this, I learned a lot about King County's commitment to equity and social justice within their environmental work. This included multiple county-wide training courses like Land Acknowledgement and Workplace Racial Microaggressions. The Land Acknowledgement training was a very impactful experience and something I wish everyone had access to. Overall, my time spent with the Rivers and Floodplain Management section of the Department of Natural Resources and Parks was an incredible learning experience. At times I was pushed out of my comfort zone, but always with the support of a very kind and intelligent team of colleagues. I am so grateful I had this opportunity.

VI. LITERATURE CITED

Provide reference information for all sources cited in your report:

About Us. King County Flood Control District. (2020, December 8). Retrieved June 9, 2022, from <https://kingcountyfloodcontrol.org/about-us/>

White River Pacific Right Bank Flood Protection Project. White River Pacific Right Bank Flood Protection Project - King County. (n.d.). Retrieved June 9, 2022, from <https://kingcounty.gov/depts/dnrp/wlr/sections-programs/river-floodplain-section/capital-projects/lower-white-river-right-bank.aspx>

APPENDIX I. SUPERVISOR LETTER

Attach a signed letter from your supervisor, on the host institution's letterhead, stating that you have completed the internship according to the organization's expectations and confirming the dates and number of hours of your internship work.



King County

Water and Land Resources Division

Department of Natural Resources and Parks
King Street Center
201 South Jackson Street, Suite 5600
Seattle, WA 98104-3855

206-477-4800 Fax 206-296-0192
TTY Relay: 711

June 9, 2022

To whom it may concern:

This purpose of this letter is to document completion of a King County internship by Emily Amos in the River and Floodplain Management Section, within the Water and Land Resources Division. Emily's internship began on March 7, 2022 and will run through June 10, 2022. Emily assisted with the preparation of outreach materials in support of a flood risk reduction project on the Lower White River that is in the planning phase. It has been a pleasure to work with Emily during her internship with King County.

If I can provide further assistance, please do not hesitate to contact me at chris.brummer@kingcounty.gov or 207-477-4655.

Sincerely,

Chris Brummer

Chris Brummer, P.E. L.E.G.
Supervising Engineer, River and Floodplain Management Section

Enclosure(s) (number)

cc: Emily Amos

APPENDIX II. SUPPORTING DOCUMENTS

Attach copies of any reports, presentations or other deliverables that you produced during your internship, if applicable.



Fig. 1



Fig. 2



Fig. 3

Site visit to White River on May 16, 2022. Figure 1 is a view from the right bank, looking across to the completed Countyline Levee Setback Project finished in 2017. Figure 2 shows HESCO barriers in place to protect the community from flood waters year-round. Figure 3 shows the Project Manager inspecting site facilities.

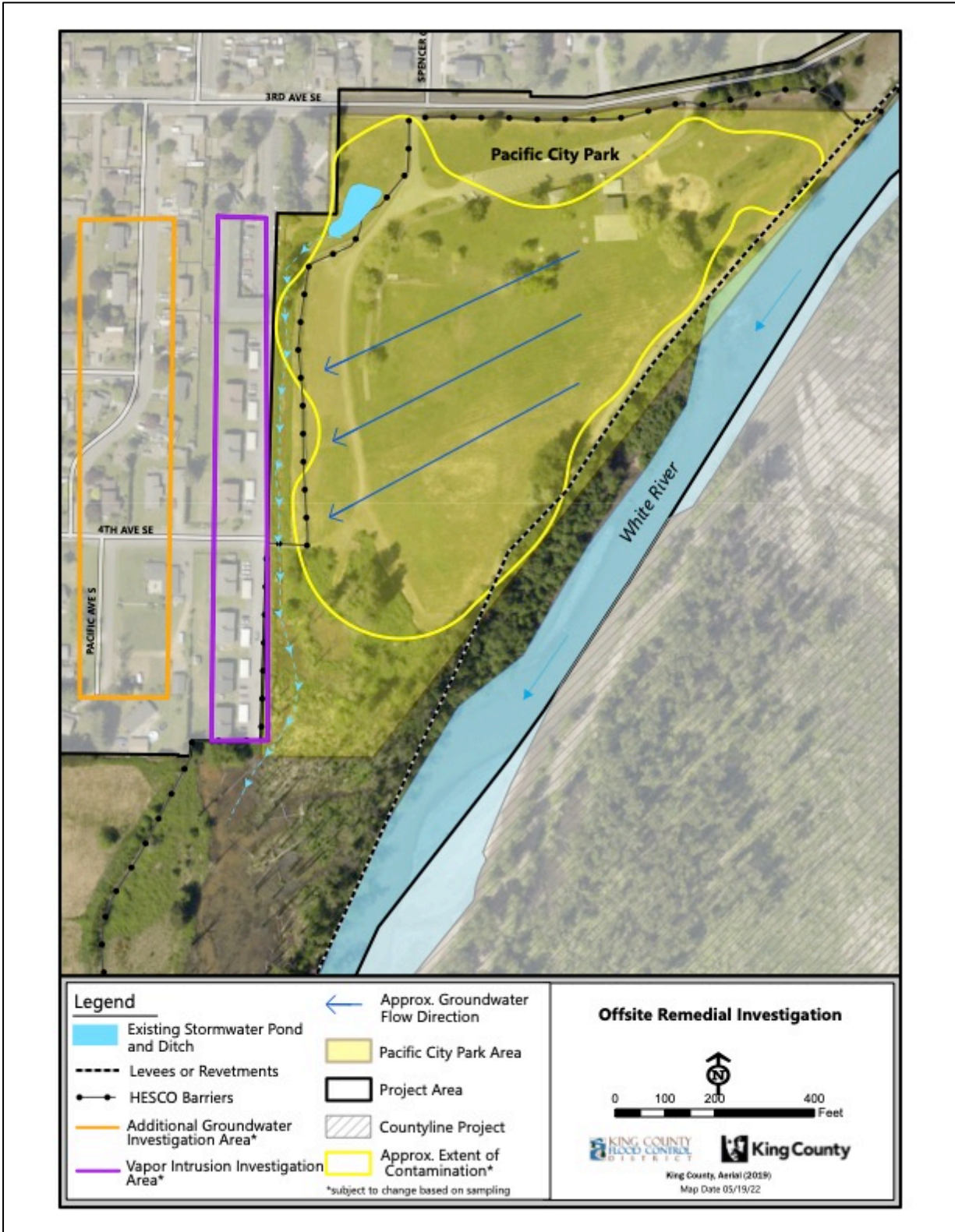


Fig. 4. Project map I designed for public outreach materials.