

My infographic communicated co-production by showing how the Klamath River came to be, via engineered infrastructure and natural processes, and how that shaped social and political decisions. This reflects the concept of co-production, where human systems and geophysical systems continuously interact and reshape one another, rather than operating independently. From a Hydrosphere perspective, the dam construction altered the river's flow regime by reducing seasonal flooding and interrupting downstream sediment transport. It also changed water temperature patterns and seasonal variability that previously resulted from natural snow-melt.

The stagnation of water from a moving river created warm conditions that were ideal for harmful algal blooms and poor water quality. These conditions illustrate eutrophication, where warmer, stagnant water promotes excessive algal growth from nutrient buildup. This, combined with reduced dissolved oxygen levels, rapidly degrades the quality of aquatic habitats. This shows how human infrastructure directly restructured hydrological processes, which circles back into ecological and social systems.

Additionally, the dams blocked historical migration routes for salmon and their reproductive cycles, disrupting the ecological connectivity between freshwater and marine systems. This decline in salmon populations extended beyond the ecosystem, affecting tribal food systems, fisheries, and regional economies. This links the biosphere and human systems, with ecological changes directly impacting food security, cultural practices, and economic livelihoods. The river is not completely "natural" or "man-made"—it's a co-produced system in which hydrological and ecological processes and political decisions shape one another through feedback loops.

The goal of my infographic is to raise awareness about how impactful dams can be on environments. They are advertised as a positive for ecosystems and clean energy, but are rarely advertised for the ecological consequences they can cause. The project aims to encourage critical thinking about the long-term tradeoffs of energy development and river management.

I made this infographic with a high-school local community audience in mind, one that can be compelled by the impacts of their local infrastructure. I think it can be powerful to educate the youth on local issues, particularly when they affect them. Younger populations can feel empowered to make positive change because their futures are at stake. By educating a local high-school audience that resides somewhere along the Klamath River, this population will be more likely to initiate change. Additionally, high-school students who are still receiving a regular science education are more versed on environmental science processes and implications—more so than an adult who hasn't taken a science class in years. Introducing the idea of co-production in relation to the River encourages this audience to think beyond a simple "dams are good or bad" narrative by highlighting the community's role. This poster helps them understand that they are part of these co-produced systems and how human decisions shape environmental outcomes.

I would share this infographic on social media platforms that are made for visually driven content. This infographic would be best suited for educational and environmental social media platforms, like NatGeo, environmental influencers, or educational platforms like BrainPOP and PBS LearningMedia. Another educational influencer that has a great following is Hank Green, from Crash Course. While his channel may not focus explicitly on environmental science, its purpose is to educate the youth in a digestible manner. His following would raise awareness on the issue and encourage the audience to learn more. By sharing this graphic on social media platforms, it will reach a broader audience and encourage discussion and debate about river

restoration. This kind of visibility can also amplify awareness of how local environmental issues are tied to broader hydrosphere and biosphere processes.

While I didn't use AI for my original project and I missed the category for the rubric, I thought using ChatGPT could be a useful resource to ensure I properly revise my project. To do this, I submitted my original accompanying text, along with the rubric and the comments made. I then asked ChatGPT to identify where I could strengthen my explanation of co-production and really spell it out, rather than describe. I received feedback on where to clarify relationships between human and geophysical systems, specifically adding key terms from the hydrosphere and biosphere modules. I used this feedback to revise my original writing and ensure I explained my understanding of the course concepts. Since I have already left campus and could not attend office hours to help with revisions, I do believe this was a helpful tool in engaging with the feedback I was given. I was able to upload the rubric, along with instructor comments, to train ChatGPT in a way that worked for these revisions. I did not use AI to generate original ideas or project content, but rather as a tool to strengthen my explanations while revising my project.

Revisions comment:

As I stated above, I used ChatGPT to help me with my revisions before resubmitting my project. I read the feedback and comments I was given, via the rubric, and while I reviewed my project, so I could understand where my mistakes were made. I then edited my online poster accordingly and "redrafted" my accompanying text, almost like a rough draft. This was when I then submitted the rubric, comments, and my project into ChatGPT, asking for feedback on how my revisions aligned with the given feedback. Ultimately, I revised the subtitle on my poster and fixed my citations by including in-text citations to accompany where I pulled my information from, and listing the full, proper APA citation on the "backside" of the poster. I also revised my accompanying text to include specific biosphere and hydrosphere facts, to walk the audience through the processes, step by step. This depth helped strengthen my co-production explanation. All in all, I used the comments I received to really understand where I needed to revise my project, so it could be best understood by my target audience, which was also refined in my revisions.

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