Group #
Group Member names:

Project title:

Annotated Bibliography
Answer the following questions below for each of the 10 sources of evidence you gather.
Research Question: How to get young adults engaged in water conservation?
Review Paper 1

"Do Health Risk Perceptions Motivate Water- and Health-Related Behavior?" A Systematic Literature Review.

- Team member evaluation:
- Citation for the article: **Anthonj, Carmen, et al. "Do Health Risk Perceptions Motivate Water-and Health-Related Behaviour? A Systematic Literature Review."** *Science of the Total Environment*, **vol. 819, 2022, article 152902, doi:10.1016/j.scitotenv.2021.152902.**
- 1-paragraph summary: **This talks about how literature has grown over the 10 years by reporting information from different countries and groups around the globe. Among the different populations big or small using different methods, theories and approaches. It talks about the evidence provided about how health-related risk perceptions are important.**
- What information does this source contribute to your research question? **The information that this source contributes to our research question is how it examines how people's perceptions of earth risks related to water influence their behaviors. How it finds that risk perceptions do tend to motivate protective behaviors especially around drinking water safety, use of improved water sources, water treatment, and etc. And how it shows that these relationships vary by socioeconomic status, geography, culture, and over time.**
- How does the source relate to other sources in your bibliography? **After analyzing this article and comparing this to my other sources in this bibliography, I've realized that this relates to those other sources. I say this because it emphasizes the inclusion of collecting data not just from a specific area but from all around the globe. It also mentions the possible behaviors that could be a factor on why there are many health risks that should be aware of because of the importance. This reminds me of the previous articles included in our bibliography.**
- What are the strengths and weaknesses of the source? **The strengths and weaknesses of this source is how strongly of the methods that were used in this article. Also, how the information given, from feedback, graphs, and flow charts are strongly articulated.**
- How does the source fit into your research topic? Why is it useful? **The way this source fits into my research topic is how not only am I talking about young adults but it brings in other background information. This information simply will help me develop a well organized bibliography because of the given information I know, the information I've found from articles and what I'm trying to figure out/solve to get young adults engaged in water conservation.**

Review Paper 2

"Perceptions of Drinking Water Quality—A Review of the Literature and Surveys Covering
the Topic"

- Team member evaluation:
- Citation for the article: **Sarkar, Madhura.** *Perceptions of Drinking Water Quality—A Review of the Literature and Surveys Covering the Topic.* **SP Group LLC, Apr. 2022. U.S. Department of Housing and Urban Development, Office of Policy Development and Research**
- 1-paragraph summary: **After reading this greatly written article, I can say it provides a comprehensive review of existing studies and surveys. On how individuals perceive the quality of their drinking water, specifically within the United States. It dives into how factors like taste, odor, color, race, and trust in water authorities can influence people's perceptions and their actions towards water sources. It also emphasizes that perceptions often differ from actual water quality, which can affect decisions. For example, using water bottles rather than tap water.**
- What information does this source contribute to your research question? **Most of the information from this review article doesn't cover or address young adult engagement in water conservation. Especially since this is a review article, but it does offer insights in a different route that can inform strategies for involving them. In the article it emphasizes that people's perceptions of water quality influence their actions. Which I personally can agree with because I once wasn't so informed about the use of water and how it is important to people, the world, the community, plants, etc. So I can agree when the article points out how people's perceptions of water quality influence their actions.**
- How does the source relate to other sources in your bibliography? **This source relates to other sources in my bibliography by the connections to water quality studies. I say this because they all work well alongside other articles that give more information and data with community perceptions, especially in urban bs rural settings.**
- What are the strengths and weaknesses of the source? **Given that this source is a review article, there isn't as much primary data as it would be if it were a research article. This source doesn't offer new observed data or case studies of its own. But regardless of the low data provided, this was still a great article. I like how it gives clear information to people like me. I also like how comprehensive the article is. It gives an in depth look at how people perceive drinking water quality across various demographics and geographic regions.**
- How does the source fit into your research topic? Why is it useful? **The way this source fits into my research topic is how not only am I talking about young adults but it brings in other background information. This information simply will help me develop a well organized bibliography because of the given information I know, the information I've found from articles and what I'm trying to figure out/solve to get young adults engaged in water conservation.**

Research Paper 1

"Water Quality in Sustainable Water Management"

Team member evaluation:
- Citation for the article: Rao, Sudhakar M., and P. Mamatha. "Water Quality in Sustainable Water Management." *Current Science*, vol. 87, no. 7, 2004, pp. 942–47. *JSTOR*, http://www.jstor.org/stable/24109398. Accessed 6 Oct. 2025.
- 1-paragraph summary: **After reading this well written research article, it provides an examination of how deteriorating water quality, especially in India, challenges the objectives of sustainable water management. In this article, it describes how surface AND groundwater sources are being compromised. It highlights how water quality degradation effectively limits usable water supply. It bridges theory and practice, reinforcing that sustainable water management must integrate water Walton control measures and not just quantity considerations.**
- What information does this source contribute to your research question? **The information that this source contributes to my research question is not only about how to get young adults engaged in water conservation but all how serious water pollution is, which is essentially a part of how we use water daily. It also further talks about pollution of surface and groundwater resources and how it occurs through point and diffuse sources.**
- How does the source relate to other sources in your bibliography? **This source can relate to other sources in my bibliography by the information given to help back up my research question. And mostly because all of it is all connected to water conservation.**
- What are the strengths and weaknesses of the source? **The strengths and weaknesses of this source is how relative it is to the research question and how it provides a lot of background information about the stakeholders and how there's different ways to solve these water issues.**
- How does the source fit into your research topic? Why is it useful? **The way this source fits into my research topic is how not only am I talking about young adults but it brings in other background information. What I mean by this is that it mentions the country India and the water resources, stakeholders and the new methods used. This information simply will help me develop a well organized bibliography because of the given information I know, the information I've found from articles and what I'm trying to figure out/solve to get young adults engaged in water conservation.**

Research Paper 2

"Indegeious water management"

- Team member evaluation:
- Citation for the article: **Jackson, Sue, and Bradley Moggridge. "Indigenous Water Management."** *Australasian Journal of Environmental Management*, **vol. 26, no. 3, 2019, pp. 193–196.**
- 1-paragraph summary: **After reading this research article, I think it highlights longstanding gaps. Despite more than a decade of policy recognition, actual inclusion of Indigenous interests in water planning remains limited and inconsistently implemented. The author of this article argues for deeper structural changes. Not just token**

consultation to enable indigenous communities to articulate their values, influence decision making, and shape water governance on their own terms.

- What information does this source contribute to your research question? **Some useful information that this source contributes to my research is the cultural and ethical framing of water. I like how it emphasizes that water is more than a resource. Something we all as humans should remember when using water. Especially since it's deeply tied to identity, culture, and spiritual responsibility, especially in Indigenous communities.**
- How does the source relate to other sources in your bibliography? **After reading and including this source in my bibliography, I definitely think it relates to other sources I've included. For instance, water quality research often centers on pollutants, regulations, testing technologies, and ecological indicators. The contribution from this article that relates to the overall bibliography is how it expands the concept of "water" quality" beyond biophysical measures to include cultural health indicators, the ability to practice and access to clean water for community ecological wellbeing.**
- What are the strengths and weaknesses of the source? **Something that I know I could take away from this source was how it explains the origin of the issue and situates the importance of Indigenous water management in the broader water-policy disclosure. Also, how it does not over reach and it gave me a road map without being overly dense. But for next time i do think where this article lacked was it not being very present of new empirical data or detailed case studies itself. Another thing is how limited critical engagement is with structural constraints. It does not deeply interrogate.**
- How does the source fit into your research topic? Why is it useful? **The way this source fits into my research topic is how not only am I talking about young adults but it brings in other background information. This information simply will help me develop a well organized bibliography because of the given information I know, the information I've found from articles and what I'm trying to figure out/solve to get young adults engaged in water conservation.**

Research Paper 3

"Protecting Indigenous Values in Water Management: A challenge to Conventional Environmental Flow Assessments."

- Team member evaluation:
- Citation for the article: **Finn, Marcus, and Sue Jackson. "Protecting Indigenous Values in Water Management: A Challenge to Conventional Environmental Flow Assessments.**
- 1-paragraph summary: **After reading this well written and informative article, something I can take away from this article is how it argues that standard environmental flow assessments in Australia have systematically failed to incorporate Indigenous values. Despite indigenous peoples' deep reliance on rivers and aquatic ecosystems for cultural, economic, and. Spiritual wellbeing. They contend that simply assuming environmental flows will safeguard indigenous interests is inadequate. I say this because conventional approaches often prioritize rare OR threatened species and generic ecological metrics rather than those species.**

- What information does this source contribute to your research question? **Some information that I found very useful for my research question from this article is how it offers a more inclusive, meaningful, and culturally relevant approach to environmental stewardship. Which is the main gain we're trying to get from our research and the question.**
- How does the source relate to other sources in your bibliography? **This source relates to other sources in my bibliography by how it makes important contributions across several areas. Especially in how water management can be more inclusive, sustainable, and culturally responsive.**
- What are the strengths and weaknesses of the source? **Some great things I took away from this article is how the article clearly identifies how traditional environmental flow assessments overlook or marginalize Indigenous causes, which is a major gap in mainstream water policy.**
- How does the source fit into your research topic? Why is it useful? **The way this source fits into my research topic is how not only am I talking about young adults but it brings in other background information. What I mean by this is that it mentions the country India and the water resources, stakeholders and the new methods used. This information simply will help me develop a well organized bibliography because of the given information I know, the information I've found from articles and what I'm trying to figure out/solve to get young adults engaged in water conservation.**

Research Paper 4

"Youth Engagement in Water Quality Monitoring: Uncovering Ecosystem Benefits and Challenges"

- Team member evaluation:
- Citation for the article:

Cho, S. (2024). *Youth engagement in water quality monitoring: Uncovering ecosystem benefits and challenges. Oxymora, 2*(3), 163–177. https://doi.org/10.3390/oxymora2030013

- 1-paragraph summary:

This project details engaging the youth population in citizen science. It focused on students aged 13 to 18 from a neighborhood dealing with environmental justice issues in Cincinnati. They canoed along a 1.5 mile section of Lower Mill Creek. While out there, they used ArcGIS Field Maps to tag locations and rate water quality problems they could see, like lots of debris or obvious sewage. They also noted spots that seemed good for ecology, based on looks and biodiversity. Hotspot analysis showed debris piling up significantly near a barrier dam and where the creek meets the Ohio River. Students' input highlighted areas that the community might want to restore. Overall, it mixed real hands-on STEM work with partnerships in the area and mapping tied to the place. That way, it created data useful for the community and boosted awareness about the environment among young people.

- What information does this source contribute to your research question?

The paper gives a solid real-world example of engaging youth through hands-on, place-based activities. It does two things at once. First, it creates detailed, location-specific data on water quality that people can act on for city streams. Second, it helps build knowledge and a sense of responsibility for the environment locally, especially with young folks in areas where official checks are limited due to justice issues. The approach uses canoeing combined with participatory GIS mapping. That fills in where regular monitoring falls short. Plus, it puts youth views right at the center of planning for conservation.

- How does the source relate to other sources in your bibliography?

This source stands out because it happens in the field and involves real partnerships with the community. It fits right into the body of work on citizen science and mapping where people join in. It adds to bigger overviews on getting youth involved by offering a case that's physical and tied to a specific spot. If your list has reviews that scope things out or stuff with apps and games, this serves as the practical example on actual water. It shows monitoring through experience can lead to spatial data sets. Digital or classroom setups often skip that part.

- What are the strengths and weaknesses of the source?

Strengths include the fresh way of doing fieldwork by canoeing into areas tough to reach. There's a true link between civic groups and academics. The spatial work turned out hotspot maps that could guide cleanup efforts. It ties strongly to goals around environmental justice. On the weak side, the group was small and data collection lasted just a short time. That cuts down on stats and what you can say over longer periods. To add, some participants did not know much about ecology - so identifying good assets was not always that deep. The method stuck to what they saw and ranked visually.That means it catches what seems like hazards more than the complete chemistry of the water. Authors mention challenges with training on tech and logistics, like bad weather or finding volunteers.

- How does the source fit into your research topic? Why is it useful?

For research on pulling youth into water conservation or ways to live sustainably, this piece fits well. It lays out a model that's easy to copy and keeps people hooked. It makes data the community can use. It gives voice to youth from groups often left out in decisions about the environment.

Research Paper 5

"Engaging young people in climate change action: A scoping review of sustainability programs."

● Team member evaluation:

● Citation for the article:

[Engaging Young People in Climate Change Action: A Scoping Review of Sustainability Programs](#)

● 1-paragraph summary:

This article looks at 48 studies from around the world on programs that get kids involved in climate change initiatives. The main goal is figuring out what works to make these programs effective. They point out eight key factors that help keep youth engaged like: chances to lead, support from the community, building a sense of identity, and feeling like you can actually make a difference. Successful ones mix outside help, such as mentors and social connections, with inside growth like developing agency and thinking about big systems. In the end, the study concludes with the sentiment that the best approaches are long-term ones led by the youth themselves; and that they have to fit the local context to really stick and lead to lasting environmental habits and real action on climate.

● What information does this source contribute to your research question?

This source adds a lot by giving a full picture of the strategies that pull young people into climate work. It backs it up with real evidence from studies, and lays out a framework to understand why some ways of engaging work better than others. You can use that to build stronger cases for programs focused on youth in sustainability.

● How does the source relate to other sources in your bibliography?

When you compare it to other pieces that might zoom in on just one program or a particular result, this review pulls together info from tons of studies. That gives a wider view to make sense of those more specific findings. It goes well with research that's more about local spots or single cases, since it spots patterns that show up globally and the factors that lead to success pretty much everywhere.

● What are the strengths and weaknesses of the source?

One big plus is how broad it is, pulling from dozens of peer-reviewed papers across different countries and situations, so you get a rounded sense of how youth get involved. Plus, it flags some gaps in the theory and suggests what to study next. On the downside, being a scoping review means it does not dig deep into how good the studies were or measure effectiveness in numbers. So the results come off more as descriptive, not like hard conclusions.

- How does the source fit into your research topic? Why is it useful?

It links straight to research on youth getting involved in sustainability and climate action. That stuff shows which methods actually spark real engagement and shifts in behavior. It builds a solid evidence base too. You can use it for designing programs, evaluating them, or just backing them up. The focus is on empowering young people as climate leaders. All that makes it useful in practical ways and academically too.

Research Paper 6

"Engaging Rural High School Students in a watershed literacy program."

- Team member evaluation:

- Citation for the article:

[Engaging Rural High School Students in a Watershed Literacy Program](#)

- 1-paragraph summary:

Describes a method called "place-based" learning. This article describes how a community watershed would be ideal for not just place-based learning but also for problem-based learning, (Young et al., 2025.)

- What information does this source contribute to your research question?

Studies show that this method of engaging youth in water literacy proves effective in increasing both civic knowledge and overall competence in youth, according to the Rural School and Community Trust. In summary, this article highlights the benefit of engaging students in a real life watershed environment, boosting their desire to learn.

- How does the source relate to other sources in your bibliography?

It poses duality, going beyond the classroom as opposed to pure second hand learning. It aims to also highlight the importance of getting students to engage in a more hands-on way as that

proves to be just as or if not more effective than second hand learning for the youth student age group.

- What are the strengths and weaknesses of the source?
- How does the source fit into your research topic? Why is it useful?

Science Communication Paper 1

"Understanding the role of youth in Indigenous territorial governance."
- Team member evaluation:
- Citation for the article:

Frontiers | Understanding the role of youth in Indigenous territorial governance

- 1-paragraph summary:

Youth engagement has become an increasingly popular priority among community leaderships. and part of the contemporary rhetoric of international development frameworks (UN, 2018; UNDESA, 2018) (Sarigumba 2023), including the 2030 Sustainable Development Agenda (Sarigumba et al., 2023) . It also highlights the conditions necessary to bring about noticeable engagement: we must first ensure the youth be met with a strong backing by both community and governmental institutions; also by bettering their understanding of the not yet visible incentives that would want to get them engaged in the first place.

- What information does this source contribute to your research question?

It details the necessary drivers required to engage youth in water conservation and over-all environmental sustainability. Also describes the dilemma of youth in the field of sustainability and the responsibilities that come with it. Regarding them as those with the least say in the matter.

- How does the source relate to other sources in your bibliography?

It goes over the positive and negative effects of the level of involvement youth have pertaining to the environmental challenges communities face in this present day.

It focuses on the general topic of sustainability but on a broader scale.

- What are the strengths and weaknesses of the source?

The strengths are bountiful, this source provides key factors relating to the involvement of youth, its benefits as well as the projected consequences for the underinvolvement.

It's a great source for understanding how giving indigenous communities more territorial governance which in turn can fuel a more sustainable society.

- How does the source fit into your research topic? Why is it useful?

It highlights the discouraging effects of youth not having adequate say in matters regarding sustainability which can lead to decreased efficiency as we've learned from other sources that youth are the carriers of the torch of sustainability and naturally should have the same if not more of a say concerning environmental matters. This helps readers like us determine what not to do when trying to get the younger generation involved in such practices.

Science Communication Paper 2

"Youth for a water-secure world"

- Team member evaluation:

- Citation for the article:

[Youth for a water-secure world - IWMI](#)

- 1-paragraph summary:

The goal of this research article is to highlight the importance of the perspective of future generations surrounding water conservation. It showcases special initiatives geared towards addressing this view such as the Transformative Futures for Water Security initiative as emphasizing the critical importance of movements geared towards youth education on water, such as the Global Youth Movement for Water.

The overall significance of these things are that they are essential building blocks towards achieving a more water secure world. This article also identifies the milestones yet to be achieved

- What information does this source contribute to your research question?
It contributes by providing a plethora of diverse programs that promote Youth Education in water conservation such as: the Global Youth Movement for Water as well as youth-led organizations such as World Youth Parliament for Water, Water Youth Network, and Youth and Young Water Professionals.

- How does the source relate to other sources in your bibliography?

It addresses the critical need to preserve the spark of desire to learn about the importance of water sustainability in the youth population. This relates to our research question as it targets the youth engagement criteria.

- What are the strengths and weaknesses of the source?
Some strengths are that this article states why it's important to get youth engaged in sustainability practices and the future of water security depends on it - as well as providing a generous amount of resources focusing on the practice at large. However, this source leaves out the fundamental building blocks required to initiate children to walk down the path of learning more about water management and instead just sounds like a desperate plea for the interest of the future generation

- How does the source fit into your research topic? Why is it useful?

It provides necessary resources to aim to involve youth in water conservation and sustainability which is the overall focus of my research.