

DAY 1: Water Quality

The discussion focused on the challenges of water quality and quantity due to climate change and non-point source pollution in Hawaii. Scott Miyashiro highlighted the complexity of watersheds, emphasizing the role of groundwater and the need for integrated watershed management. Joanna Seto discussed the importance of legislative support and public-private partnerships in sustainable development. Erin Derrington emphasized the global water crisis, noting that 30% of the world population lacks access to safely managed drinking water. Solutions like wetland restoration, water reuse, and community engagement were proposed to address these issues, with a call for better data and collaboration among stakeholders.

Action Items

- [] Collaborate with the Department of Health's Wastewater Branch on cesspool conversion and septic system management measures.
- [] Explore available funding sources, such as state revolving funds and the non-point source program grants, to support projects addressing non-point source pollution and climate resilience.
- [] Provide information on the Department of Health's beach water quality monitoring program and how the public can access advisories.

Outline

Watersheds and Water Quality

- Moderator, Francis Wiese, explains the concept of watersheds, emphasizing their role in collecting stormwater and the importance of groundwater.
- The complexity of watersheds is highlighted, including land use activities and the interconnection of surface and groundwater.
- Speakers mention the historical context of watershed management in Hawaii, with a focus on protecting surface water from non-point source pollution.
- Non-point source pollution is described as diffuse pollution that is challenging to trace and manage, affecting drinking water supplies and recreational areas.

Impact of Climate Change on Watersheds

- Speakers discuss how climate change can exacerbate non-point source pollution by increasing stormwater runoff and pollutant transport.
- Changes in precipitation patterns, including increased intensity and frequency of rainfall, can lead to more runoff and higher pollutant concentrations.

- Droughts and natural disasters, such as hurricanes and wildfires, can also worsen water quality by reducing flow and increasing pollutant levels.
- The speaker provides examples of the impact of wind erosion and wildfires on watersheds, including the exposure of cesspools and the release of hazardous substances.

Historical Context and Legislative Framework

- Speakers provide a historical overview of population growth and its impact on water resources in Hawaii, including the rise and fall of the sugar and pineapple industries.
- Outlines the legislative framework for managing non-point source pollution, including the federal Clean Water Act and the Hawaii Revised Statutes.
- The establishment of the Surface Water Protection Branch in 2021 is highlighted, along with the adoption of administrative rules to support the new branch.
- Speaker emphasizes the importance of collaboration with other state agencies and community organizations to address water quality issues.

Nature-Based Solutions and Community Engagement

- Speakers discuss the potential of nature-based solutions, such as wetland restoration and green infrastructure, to mitigate non-point source pollution.
- Highlights the role of community engagement and education in promoting sustainable water management practices.
- The importance of involving local nonprofits and community groups in watershed management efforts is emphasized, with examples of successful projects in Hawaii.
- Mentions the potential for using wastewater reuse for restoration work and reducing non-point source pollution.

Global Water Challenges and SDGs

- Provides an overview of global water challenges, including the lack of access to safely managed drinking water and the increasing scarcity of water resources.
- Discusses the importance of integrated watershed management and the need for holistic approaches to water resource management.
- The role of the Local 2030 Islands Network in promoting sustainable development solutions and building resilience in islands is highlighted.
- Emphasizes the need for public-private partnerships and community engagement to achieve sustainable water management goals.

Localized Water Management and Data Gaps

- Discusses the challenges of achieving global water targets, including data gaps and the need for better data collection and management.

- Highlights the importance of localized water management plans and the role of community-led initiatives in achieving sustainable water goals.
- Provides examples of innovative water management solutions, such as the Aloha Plus Challenge dashboard in Hawaii, which tracks progress towards sustainable development goals.
- The need for continued collaboration and knowledge sharing between local governments, NGOs, and community groups is emphasized.

Integrating Climate Projections into Water Management

- Raises the issue of integrating climate projections into water management plans to prepare for future changes in water availability and quality.
- Speakers discuss the importance of having accurate data and flexible plans to adapt to changing climate conditions.
- The role of partnerships and collaboration with other agencies and stakeholders in developing comprehensive water management strategies is highlighted.
- The need for legislative and policy frameworks to support sustainable water management practices is emphasized.

Nature-Based Solutions and Water Reuse

- Speakers discuss the potential of nature-based solutions, such as wetland restoration and green infrastructure, to improve water quality and resilience.
- Highlights the importance of community engagement and education in promoting sustainable water management practices.
- The potential for using wastewater reuse for restoration work and reducing non-point source pollution is discussed.
- The need for innovative financing models and policy frameworks to support nature-based solutions is emphasized.

Desalination and Small-Scale Water Reuse

- Raises the issue of desalination as a potential solution for water scarcity, while providing insights into the challenges and benefits of desalination.
- Discusses the importance of locating desalination plants in appropriate locations and managing the discharge of treated water.
- The potential for small-scale desalination and water reuse systems, such as those used by Terraformation, is highlighted.
- The need for continued research and development to improve the efficiency and sustainability of desalination and water reuse technologies is emphasized.

Final Thoughts and Community Engagement

- Emphasizes the importance of community engagement and partnerships in achieving sustainable water management goals.
- The role of local governments, NGOs, and community groups in developing and implementing water management plans is highlighted.
- The need for continued collaboration and knowledge sharing between stakeholders to address water quality and scarcity issues is emphasized.
- Encourages participants to share their priorities and feedback to help inform and support sustainable water management efforts.