Projects and ActivitiesThu Mar 28 23:37:46 HST 2024

Name	Groundwater Tracers to Evaluate Connection Between Inland and Coastal Groundwater Systems, Kona Area, Island of Hawaii
Timeframe	- Multi-decadal (scenarios)
Capability Area: Impacts/Adaptations	- Understanding Climate Impacts and Informing Adaptation - Climate Impacts - Research/Development - Climate Adaptation - Assessment and Evaluation
Sectors	- Fresh Water Resources - Community Planning and Development
Status	- Ongoing
Focus Area	- Fresh Water Resources and Drought
Regions	- Central North Pacific - State Of Hawaii
Description	Since 1970, west Hawaii has experienced a population increase of about 83 percent and the fastest economic growth on Hawaii Island, although the effects of development on groundwater resources remain uncertain. At issue among stakeholders is whether urban development over, or withdrawals of freshwater from, the high-level groundwater system will adversely affect the coastal groundwater system, which itself is developed for municipal, agricultural, and industrial uses and which sustains aquatic resources. The results from this study will help water managers and other stakeholders to better understand potential risks to coastal water resources associated with groundwater withdrawals from, and development over, the inland high-level groundwater system. This study is consistent with the USGS mission to provide a clearer knowledge of the status of water resources; specifically, the likely changes in land use, land cover, and water use on water quality and ecosystem health.
Objectives/Outcomes	The objective of this study is to evaluate whether groundwater from the high-level system discharges into the coastal groundwater system, and whether there are characteristic chemical or isotopic signatures that aid in making this discrimination.
Lead Agencies	USGS/PIWSC
Contacts	Delwin Oki, dsoki@usgs.gov
Partnering Agencies	Hawaii State Commission on Water Resource Management
Projected Timelines	May 2012 through September 2014

Url	http://hi.water.usgs.gov/studies/isotopes/