

Changing the Way We Think About Fresh Water on Islands

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Marshall Islands: Ebeye



- On Ebeye, 11,000+ people are crammed on this tiny piece of land which is 1 mile long by a quarter of a mile wide.
- Water shortages are common, and sometime fresh water is only turned for one hour the whole day.
- There is a desalination plant because there simply is not enough rain to provide water for the entire population.
- This helped me understand the importance of a desalination plant on Lana'i

Marshall Islands: Likiep



- While I was on Likiep water was more accessible.
- The 200 people of this island rely entirely on rain water. Water catchment tanks are found in everybody's yard, along with lens wells which can provide non-potable water for washing and laundry needs
- However, in time of drought the people here DO NOT have enough fresh water; those who can, have to leave their homes in order to survive
- Further research on the desalination process would help countries like the Marshall Islands.

Lana'i

- In my lifetime on Lana'i, droughts have been bad.
- When droughts occur, especially the bad ones, deer move into the city and eat our vegetation.
- On Lana'i there once was a stream called Maunalei that now is dry.



The Tragedy of Maunalei



- Maunalei Gulch used to be home to a thriving community.
- Maunalei is place on Lana'i where a stream used to run
- The stream dried up when the town started tapping into the groundwater.

Desalination Around the World

- Desalination is the process at which salt is removed from water to produce fresh water suitable for human consumption or irrigation.
- Places such as the Marshall Islands, Italy, India, Greece, Japan, etc. have desalination plants.
- There has been an estimated 120 countries that have desalination plants within them.

My hope for desalination on Lana'i

- I hope desalination on Lana'i will provide more fresh water to the residents of the island.
- I also hope that it will provide a lot of water for the hotels so that they will no longer use the island's water from our aquifer to water their grounds and golf courses
- Also desalination can provide for sustainable agriculture, allowing people to have more water to grow their own food, and maybe also sell their produce to make extra money.

Where we are now . . .

- According to the Pulama Lana'i website, the desalination plant will be on the South side of the island where the Manele Bay Hotel and Hulopo'e Beach Park are located.
- They are hoping to increase the amounts of fresh water available to the islanders from four million gallons to ten million gallons.
- Their goal is to supplement Lana'i's fresh water reserves and protect its groundwater.
- If people learn more about desalination, they could help support Lana'i's efforts to be more self sustaining.

