ANATOMY
OF
WASTEWATER

DEPARTMENT of ENVIRONMENTAL SERVICES
One sunny day, the Aloha family enjoyed a picnic at Kakaako Park.
While the family was eating, Kimo asked his mother, “Where does my spam musubi go once I swallow it?”
His mother, a doctor, and father, a wastewater plant operator, looked at each other and thought how similar their answers would be.
“Your body, or anatomy, works very similar to the wastewater system,” Mrs. Aloha said.
“We all know you love spam musubi. Your body breaks down the food so it can use the good parts and get rid of the stuff it does not need,” Mrs. Aloha explained.
“The process begins when you chew and swallow your food,” Mrs. Aloha said. “It goes down your throat, through a long tube to your stomach.”
“Your stomach gets to work by breaking down your spam musubi with chemicals your body produces.
Mr. Aloha added, “This is very similar to what happens when you wash your hands, take a shower or flush the toilet.”
“The wastewater goes down the drain to a series of pipes usually located under the streets.”
“Here on Oahu, the wastewater flows down through the pipes to a treatment plant,” Mr. Aloha said.
At the entrance of the plant, the wastewater is screened to get rid of the large items.
From there, it goes into a giant holding container where oils are skimmed off the top and solids scraped off the bottom.
The next stop is a settling tank where tiny bugs are added to eat the solids. After the bugs are full, the wastewater moves to another holding container to clean it again.
“Are these holding tanks like my stomach?” Kimo asked. “Yes, after the musubi is broken up in your stomach, your body uses the good items,” replied Mrs. Aloha.
“The bad items go through another set of tubes called the small and large intestines,” she added.
The small intestine is about 20 feet long and receives chemicals from other organs in the body to break down the food even more.
The small intestine then connects to the 6-foot long large intestine. This is where food ends up if your body cannot use it.
“Your body separates the liquids and solids in the large intestine before you get rid of them when you go to the potty,” Mrs. Aloha explained.
Kimo’s dad jumped in, “After a treatment plant cleans the wastewater, it is then released back into the environment where Mother Nature further processes it.”
Mrs. Aloha added, “Water is our most precious resource on Earth; however, treating wastewater is extremely important to keep people from getting sick from germs and bacteria.”
Mr. Aloha ended by stating, “Kimo, a treatment plant is the last line of defense we have against water pollution.”
After their ono picnic at the park, Kimo said he needs to use the restroom before they drive home.
Kimo’s mother quizzed, “So, what happens after you flush the toilet?”
Kimo gave a big grin and yelled, “I remember! My spam musubi goes there,” pointing to the treatment plant across the bay.