

FACT SHEET:

WATERSHEDS

What is a watershed?

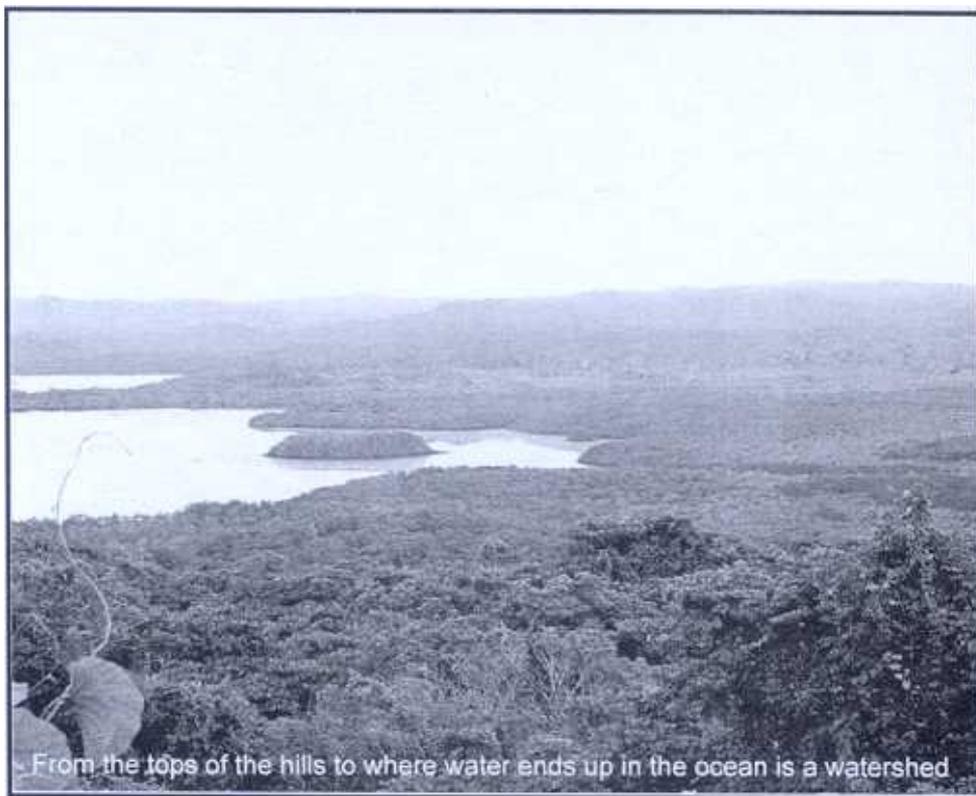
A question such as this may not stir your curiosity unless you know just how important watersheds are to us as islanders. No matter where you live in Palau, whether it is up in the hills, next to mangroves, or by the sea, we all live in a watershed.

A watershed is basically an area that water travels through from where it fell as rain to where it enters a watercourse and then the ocean. Each watershed is separated by the hills or ridges that direct the flow of water into a river or stream. A watershed is like the roof of your house. When it rains, the only way the water will go is down. That is watershed.

There are 5 main watersheds in Palau: Ngerikiil, Ngerdorch, Diongradid, Ngeremduu and Ngerbekuu. Within each of these there are sub-watersheds where water runs into smaller streams, which then run into the main river before entering the ocean.

Why are watersheds important?

Water is the source of all life. Protection of watersheds is thus important for people as well as plants and animals. Water running from watersheds is used for many uses. One of the most important uses for people is for drinking water. For example the Ngerikiil watershed supplies water to Koror and Airai, so keeping the water from this watershed clean is essential for human health. The same applies to any watershed where people use water from streams.



From the tops of the hills to where water ends up in the ocean is a watershed

A study done by EQPB in 1999-2000 found that the Ngerikiil River contained bacteria (fecal coliform) that exceeds the acceptable limits for its use as public water. Fecal coliform Bacteria are found in the intestines of warm blooded animals like pigs, dogs, cows and humans and can cause serious sickness in humans.

Over 70% of the rain that falls on the ground in Babeldaob will end up in the ocean. The quality of this water can have a major effect on the health of our reefs and fisheries. Pollution of the water from sewerage, soil erosion, chemicals or other sources can seriously damage them.



Healthy Watersheds

Local residents of Oche-lochel, Airai, have reported that mangroves areas that used to supply them with fresh fish are now too silty and the marine life that used to thrive there is now mostly gone. Fish species such as the udech (emperor) and kelsebuul (rabbitfish) are now rarely found.

A healthy watershed is one where water is not polluted and the natural water flows are not seriously disturbed. Pollution or soil erosion from farming, road construction, urban development, industry or many other sources all have the potential to damage the health of watersheds. Maintaining vegetation cover is a major factor in keeping watersheds healthy. Native forests are especially valuable for their important roles in preventing soil erosion and regulating water flows. Mangroves are a critical part of watersheds as they help filter sediment and pollution from water before it reaches the reefs that supply us with fish.

What can we do to keep our watershed healthy?

Here are 8 suggestions for actions we can all take to keep our watersheds healthy:

1. **Remember that what you do in a watershed will almost always affect someone else as well as yourself.** Water runs downhill, so any pollution caused by someone on the slopes or in the upper part of the watershed will always move downstream and affect other people's drinking water or fisheries.
2. **Reduce unnecessary burning.** Burning results in nutrient loss, leads to soil erosion and pollutes streams. Use alternative methods wherever possible for clearing land for crops or removing weeds around your house. Avoid burning savanna or forest areas.
3. **Maintain buffer zones along streams and rivers.** Keeping vegetation along streams and rivers helps filter out sediment and pollution before it reaches the water. Avoid cultivating, clearing vegetation and animal grazing within 50 feet of small streams and 150 feet of larger rivers.
4. **Minimize pollution from your house or farm.** Prevent contamination of drinking water by locating piggeries and septic systems away from streams, and keeping farm animals out of streams. Keep pesticides and fertilizers away from streams. Store all chemicals carefully in a secure area.
5. **Minimize soil erosion** from your farm by adopting farming practices that conserve your soil and prevent erosion.
6. **Encourage careful development.** Promote careful land-use practices in your local community. Ensure farm workers are properly trained. Seek advice on minimizing negative impacts and get appropriate approvals for all developments.
7. **Protect all mangroves.** Avoid clearing or filling mangrove areas.
8. **Monitor water quality in streams** you know about or use, and let EQPB know if you notice any changes.

An unhealthy watershed results in damage to human health and the natural environment, as well as damage to important economic resources such as fisheries and tourism resources

Seek advice from Environmental Quality Protection Board (EQPB), the Bureau of Agriculture and Natural Resources Conservation Service (NCRS) on

- proper design and location of piggeries, septic systems and chemical storage areas.
- maintaining buffer Zones along streams
- minimizing erosion on your farm
- training for farm workers
- development standards and approvals



For more information contact:

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