

Contact: Nancy Ross, Pacific Institute, 510-251-1600 x106, nross@pacinst.org

PROTECTING WATER QUALITY IS EVERYONE'S JOB

Individuals Can Have an Impact

The health of the world's freshwater resources depends on commitment from individuals, communities, and governments to ensure that water resources are protected and managed in a sustainable manner.

Safeguarding the world's water quality is critical for human health and the health of our ecosystems. Individuals can make a difference by spreading awareness about the connections between water quality and health, and advocating for better services in developing countries and better water-protection policies at community, regional, and national levels.

Multi-faceted approaches are needed, beginning with incremental steps where economic resources are low, to major investment that respects what is socially and culturally appropriate and viable, in order to:

- -Prevent pollution
- -Treat what we dispose of into waterways
- -Clean up polluted waterways
- Individuals can work on community campaigns to spread awareness about the impact of refuse disposal and lack of safe sanitation on water quality and health. This awareness leads to advocacy and action at every level.
- Awareness translates to preventing disposal of solid and human waste and chemical and industrial waste into waterways as much as possible and treating wastes before they go into waterways.
- For many, water-quality protection means developing, promoting, and educating for safe and cost-effective ways of treating drinking water before consumption.
- Education that is relevant to individual communities in developing areas can help people determine their best strategies to avoid contaminating local water sources: avoiding urinating or defecating in or near the water; building toilets/sites for waste downhill from wells to reduce risks of contaminating groundwater; employing household water treatment and safe storage techniques are examples.
- In developed areas, individuals can participate in restoration organizations and activities to learn, help educate the community, and advocate with policy makers about water-quality solutions: "Low Impact Development" and protecting natural areas are examples.

Human activity has a tremendous impact on water quality. Promoting awareness and advocacy on the importance of protecting and improving water quality is critical to our health and our future.



TIPS FOR PROTECTING WATER QUALITY

Individuals Can Have an Impact

For Residents of Urban and Suburban Areas

As our cities and suburbs grow, more and more surface area is impervious: water doesn't soak in, it runs off. And as it runs off, more and more pollutants are carried into waterways: oil, grease, and toxic chemicals from motor vehicles, pesticides and fertilizers from lawns and gardens, waste from pets and sewers, chemical seepage, trash, and more.

But there are things individuals can do:

- Decrease polluted runoff by replacing paved surfaces, where possible, with porous pavement materials and plantings (especially native plants).
- Sweep, don't hose down, driveways, sidewalks, gutters, and patios.
- Direct downspouts to send rainwater to lawns and gardens or rainwater catchment.
- Pick up after your pet; pet waste is raw sewage.
- Store and dispose of household chemicals properly. Take paints, solvents, cleaners, and pesticides to Household Hazardous Waste Turn-In sites.
- Check cars for fluid leaks and recycle motor oil. Find a "green" car wash that recycles wastewater and avoid hosing down cars in driveways and on streets.
- Don't flush garbage down the toilet.
- Never pour anything down the storm drains and don't litter! Everything you see on the streets can be carried into our waterways.
- On lawn and garden areas, use fertilizers sparingly and avoid harmful pesticides.
- Compost, don't trash, yard and garden clippings.
- Weigh in on city planning! Voice and vote for ordinances and plans that require "Low Impact Development" strategies for new growth and protect natural areas.
- Volunteer for restoration organizations and activities, and help educate the community on water-quality solutions.



TIPS FOR PROTECTING WATER QUALITY

Individuals Can Have an Impact

For Residents of Rural and Agricultural Areas

Sediment washed off fields is among the largest sources of agricultural water pollution, as this soil runoff often contains harmful pesticides and chemical contaminants. Runoff of fertilizer contributes nitrogen and phosphorous to waterways, and these extra nutrients can lead to algae growth that depletes oxygen in the water and harms the ecosystem.

- Using soil erosion control techniques and implementing nutrient management plans on farms to reduce excess application can reduce runoff that contaminates waterways.
- Using Integrated Pest Management (IPM) techniques (which can include biological pest control), growers can minimize pesticide impacts on waterways.
- Using the least and least toxic applications protects groundwater, because fertilizers and pesticides used to grow crops may leach through soils and contaminate groundwater supplies.
- Controlling farm animal access with fences or with plantings like bushes and trees protects water quality. Livestock eat the vegetation that protects stream banks, their hooves can cause further erosion, and their waste degrades water quality.
- Maintain your septic system and have it inspected and pumped every 2-5 years. Keep household hazardous wastes out of it.
- Remember that roots from trees and shrubs can damage the septic system, so keep plantings away from the area.
- "Green infrastructure" can improve both urban and rural waters: using soil, trees, plants, wetlands, and open space to reduce total runoff and treat what is produced through capture and reuse or infiltration of rainwater.
- Be involved and speak out! Join or start –a local watershed coalition, stream or river protection group, or conservation organization. A good place to get information is your county Extension Office.



TIPS FOR PROTECTING WATER QUALITY

Individuals Can Have an Impact

For Residents of Developing Areas

There are good practices that help contain pollution and keep water safer, and sharing the information and getting a community involved and active to make the solutions a habit is one of the best ways to begin taking on the water-quality challenge.

- Urinating or defecating in or near water sources can contaminate the water with germs/bacteria.
- Defecating far from water sources keeps water safer (20 meters from any surface water, wells, or springs), in a place where people and animals will not come in contact with feces, and cover excrement with dirt.
- Water used for cleaning hands and bodies after defecating should never be dumped into lakes and streams, but rather into a toilet or waste pit (20 meters from any surface water, wells, or springs).
- Building toilets/sites for waste downhill from nearby wells reduces risks of contaminating the groundwater.
- Using fertilizers and pesticides in limited amounts helps to keep them from entering waterways.
- Protecting the area around a spring source with a fence helps keep animals out and a drainage ditch helps avoid pooling and mud where germs can thrive.
- Using clean containers to collect water helps keep the water safer.
- Spreading the word and making sure everyone in your community knows and understands how to help keep water sources safer makes a difference.
- Many problems can be solved through community organizing or other partnerships.