

PHYTOREMEDIATION

Phytoremediation uses plants to clean up pollution in the environment. Plants can help clean up many kinds of pollution including metals, pesticides, explosives, and oil. The plants also help prevent wind, rain, and groundwater from carrying pollution away from sites to other areas.

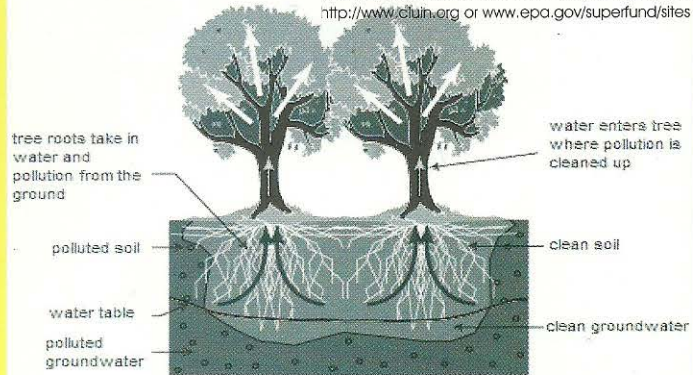
Phytoremediation works best at sites with low to medium amounts of pollution. Plants remove harmful chemicals from the ground when their roots take in water and nutrients from polluted soil, streams, and groundwater. Plants can clean up chemicals as deep as their roots can grow. Tree roots grow deeper than smaller plants, so they are used to reach pollution deeper in the ground.

Once inside the plant, chemicals can be:

- stored in the roots, stems, or leaves
- changed into less harmful chemicals within the plant
- changed into gases that are released into the air as the plant transpires (breathes).

Phytoremediation can occur even if the chemicals are not taken into the plant by the roots. For example, chemicals can stick or sorb to plant roots. Or they can be changed into less harmful chemicals by

Adapted from A Citizen's Guide to Phytoremediation
<http://www.cluin.org> or www.epa.gov/superfund/sites



bugs or microbes that live near plant roots. The plants are allowed to grow and take in or sorb chemicals. Afterward, they are harvested and destroyed, or recycled if metals stored in the plants can be reused. Usually, trees are left to grow and are not harvested.