



Protecting Water Resources from Soil Contamination

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Received date: 19 March, 2023, Manuscript No. JSPH-23-100582;

Editor assigned date: 22 March, 2023, Pre QC No. JSPH-23-100582 (PQ);

Reviewed date: 05 April, 2023, QC No. JSPH-23-100582;

Revised date: 12 April, 2023, Manuscript No: JSPH-23-100582 (R);

Published date: 19 April, 2023, DOI: 10.4172/jsph.1000183

Description

Soil contamination is a form of land degradation introduced by the spillage, migration, or burying of hazardous contaminants to the soil surroundings from untreated industrial effluents, manufacturing wastes, nearby waste, agrochemicals, and other man-made substances or activities. Soil contaminants not only have an effect on the soil but have a destructive impact on animal, plant, and humans as well. The infected soil may additionally come from breathing, swallowing, touching, or ingesting food grown in contaminated lands. Soil contamination commonly occurs in urban areas, through industries and mines.

Forms of soil contaminants

- Petroleum hydrocarbons: The infection of soil from petroleum hydrocarbons are generally added by way of crude oil and herbal gas.
- Agrochemicals (pesticides, herbicides, and fertilizers)
- Polycyclic or Polynuclear Aromatic Hydrocarbons (PAH)
- Solvents.
- Lead.
- Asbestos.
- Heavy metals.

Infection from land could make its way into groundwater, rivers and creeks. People can also use these waterways for drinking water and irrigation. Victoria sources most of its drinking water from surface water inclusive of rivers, streams and reservoirs.

In few areas, humans use tank water, unhygienic floor water or groundwater for ingesting, out of which water is the main source; that is recommended for human beings for the personal usage. The use of unhygienic water for drinking, irrigation or exercise may be a hazard to the human fitness. All the people who want to use groundwater for these functions, the first thing to do is to examine the water to ensure its purity and later the supply and sanity.

Impure water must be purified before it can be used for drinking in order to prevent capacity infection. It is difficult to re-take the water regularly, as its first-class can change over time. Victoria unearthed has information about contaminated groundwater places and restrictions. It does not necessarily follow that groundwater from a particular area is safe to use just because it is not included on Victoria Unearthed. This is due to the possibility that the groundwater hasn't been examined or tested.

If individuals consume or utilize water from a groundwater well or river, it is important to regularly examine it for potential chemical contamination. It is advisable to consult with the local water authority to learn how to conduct these tests. The Department of Health also provides guidance on ensuring the safety of drinking water sources.

The infection of soils with various inorganic and organic contaminants caused the degradation of huge prices of city and arable lands all through the arena. The presence of poisonous contaminants poses a substantial fitness risk to people and different ecological structures. Scattered literature is harnessed to critically evaluate the diverse natural and anthropogenic assets and potential risks and to identify the pleasant possible remediation techniques for a number of contaminants, specifically those inorganic in nature including Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), and Zinc (Zn) commonly observed within the infected soils. The remediation methods together with chemical and phytoremediation strategies are mentioned. Chemical remediation methods together with immobilization, soil washing, and verification are particularly risky to the surroundings, and aren't appropriate for big-scale soil remedies. Conversely, phytoremediation has emerged as an environmentally pleasant and viable technology for recuperation of contaminated soils, with restricted efforts, in order to demonstrate this generation beneath subject conditions. Remediation of heavy metallic-infected soils is important to reduce the associated risks, make the land an useful resource for agricultural manufacturing, enhance food quality, and cut down land tenure problems arising from adjustments inside the land-use sample.

Citation: Liu G (2023) Protecting Water Resources from Soil Contamination. *J Soil Sci Plant Nutr* 7:2.