

Phytoremediation:

A Reality Check

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Phytoremediation

Use of plants to remediate and clean up contaminated soil, sludge, sediment and water

Types of Phytoremediation

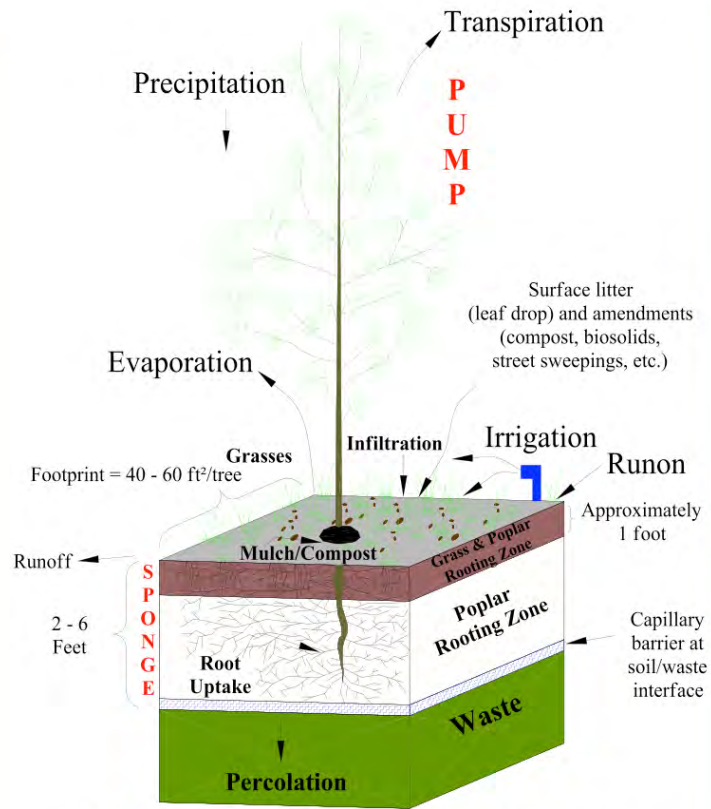
- Phytoextraction
- Phytovolatilization
- Phytostabilization
- Rhizodegradation
- Hydraulic control

Phyto Applications

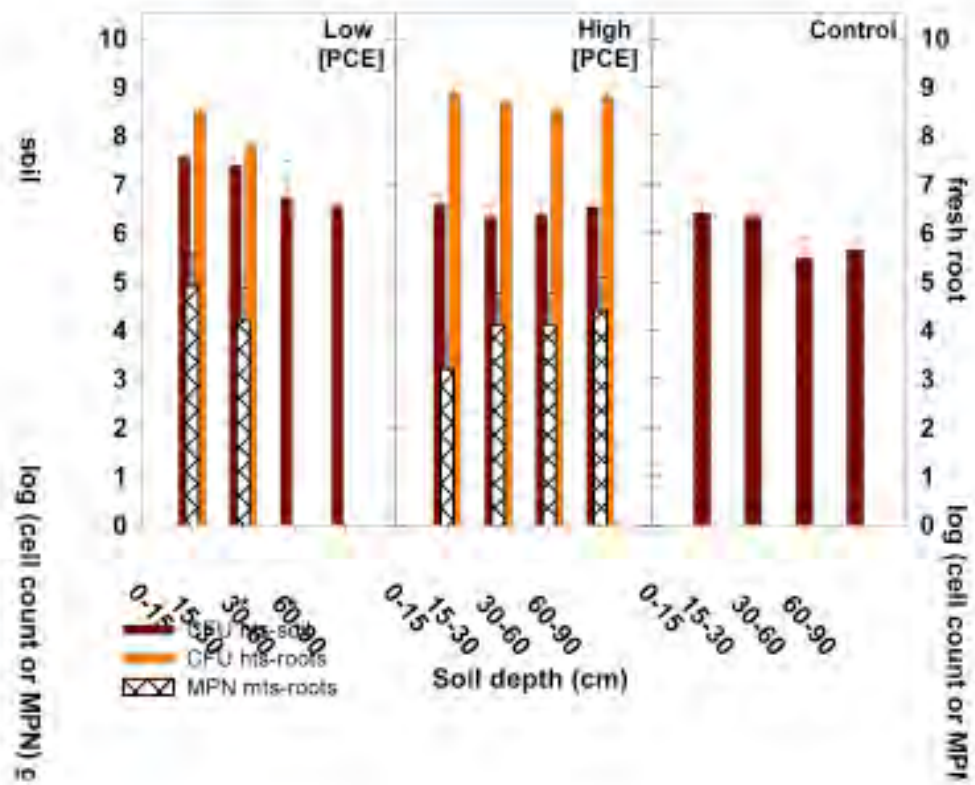
- Buffers
- Vegetation filters
- *In situ* phyto plantings
- Vegetative caps

Choice of Plant Material Considerations

- Plant origin
- Soil
- Microclimate
- Pests
- Diseases
- Application goals
- Policies



$$\text{Percolation} = \text{Initial Moisture} + \text{Precipitation} + \text{Irrigation} + \text{Runon} - \text{Final Moisture} - \text{Evaporation} - \text{Transpiration} - \text{Runoff}$$



Regulator---Cleanup Goals

- Time line
- Depth of contaminant/Quantity
- Budget—Maintenance/Monitoring
- Disposal

Safety

- HAZMAT
- Utilities---Above/below ground
- Equipment

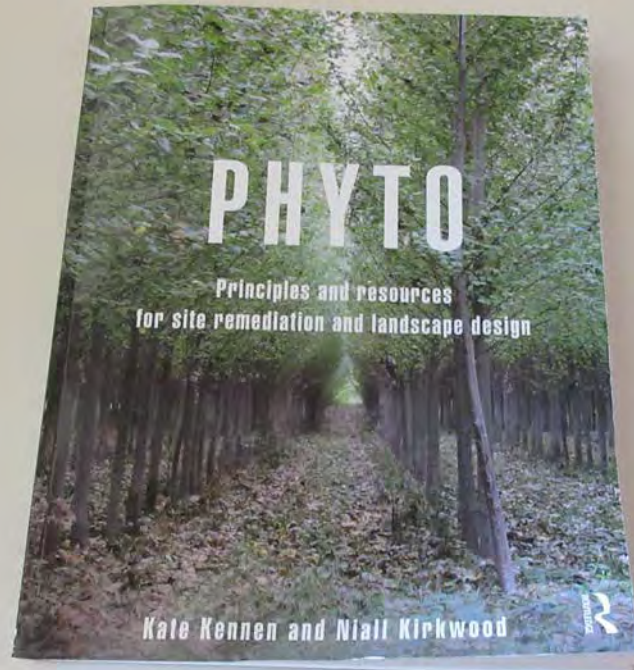


Environmental Science and Technology: A Wiley-Interscience Series of Texts and Monographs
Jerald L. Schnoor and Alexander Lehner, Series Editors

PHYTOREMEDIATION Transformation and Control of Contaminants

Edited by
Steven C. McCutcheon
Jerald L. Schnoor





PHYTO

Principles and resources
for site remediation and landscape design

Kate Kennen and Niall Kirkwood

