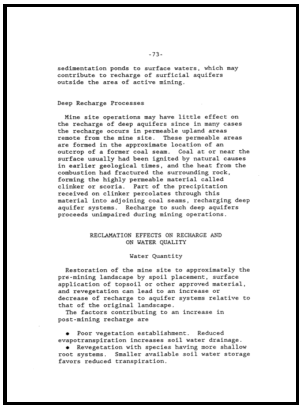
Plant and spoil characteristics affecting surface mine revegetation

s.n - Revegetation pattern affecting accumulation of organic carbon and total nitrogen in reclaimed mine soils [PeerJ]



-73-

sedimentation ponds to surface waters, which may contribute to recharge of surficial aquifers outside the area of active mining.

Deep Recharge Processes

Mine site operations may have little effect on the recharge of deep aquifers since in many cases the recharge occurs in permeable upland areas remote from the mine site. These permeable areas are formed in the approximate location of an outcrop of a former coal seam that burned near the surface usually had been ignited by natural causes in the past. The combustion gases and the heat from the subsurface fire fractured the surrounding rock, forming the highly permeable material called clinker or scoria. Part of the precipitation received on clinker percolates through this material into adjoining coal seams, recharging deep aquifer systems. Recharge to such deep aquifers proceeds unimpaired during mining operations.

RECLAMATION EFFECTS ON RECHARGE AND ON WATER QUALITY

Water Quantity

Restoration of the mine site to approximately the pre-mining landscape by spoil placement, surface application of topsoil or other approved material, and revegetation can lead to an increase or decrease of recharge to aquifer systems relative to that of the original landscape.

The factors contributing to an increase in post-mining recharge are

- Poor vegetation establishment. Reduced evapotranspiration increases soil water drainage.
- Revegetation with species having more shallow root systems. Smaller available soil water storage favors reduced transpiration.

Description: -
-Plant and spoil characteristics affecting surface mine revegetation
-Plant and spoil characteristics affecting surface mine revegetation
Notes: 13
This edition was published in 1971

Tags: #Distinguishing #reclamation, #revegetation #and #phytoremediation, #and #the #importance #of #geochemical #processes #in #the #reclamation #of #sulfidic #mine #tailings: #A #review

Revegetation approach and plant identity unequally affect structure, ecological network and function of soil microbial community in a highly acidified mine tailings pond

They can reverse the degradation process by stabilizing soils through the development of extensive root systems. The leaf debris plays an important role for improving the organic matter of the dump material for the successful implementation of revegetation.

Dump Stability and Soil Fertility of a Coal Mine Spoil in Indian Dry Tropical Environment: A Long

Our results showed that CR and DR achieved a vegetation coverage of 59. Akira Miyawaki, a Japanese botanist.

Dump Stability and Soil Fertility of a Coal Mine Spoil in Indian Dry Tropical Environment: A Long

Therefore, in the present study, we determined the SOC and TN concentrations and stocks in reclaimed mine sites RMSs and in adjacent undisturbed native sites UNSs at the Heidaigou surface coal mine. The growth of indigenous plants is dependent upon the soil quality as well as the organic matter of the dump material.

Natural Revegetation of Coal Mine Spoils in the Rocky Mountains of Alberta and Its Significance for Species Selection in Land Restoration on JSTOR

Soil depth cm Ar Bu AB Gr NRS SOC 0—10 2.

Revegetation approach and plant identity unequally affect structure, ecological network and function of soil microbial community in a highly acidified mine tailings pond

This paper includes physical, chemical and biological mine soil properties, their management to make soil productive, top soil management, vegetation of various species and assessment of effectiveness of reclamation. We then profiled the structure, ecological network and function of soil microbial communities associated with two dominant plant species of the vegetations via high-throughput sequencing. There were distinct temporal changes in soil bulk density, low soil bulk density were found in 10-year of restoration land at depth of 0-20 cm due to the significantly increase of the belowground biomass.

Related Books

- Cronologia, analisis y repercusion de la guerra de las Malvinas
- Belgian added value tax code - effective January 1, 1971
- World faith - the story of the religions of the United Nations.
- White trash - the eugenic family studies, 1877-1919
- Future of natural fibres - papers presented at a Shirley Institute Conference on 29-30 November 1977