

BIODIVERSITY CASE STUDY

Company: Rio Tinto Minerals Austria / Naintsch Mineralwerke GmbH

Country: Austria

Title The project “Habitat Mine” - the investigation of plant and habitat diversity within and outside the mining area to gain information on how to treat the post mining landscape for ecological benefits.

Context Talc mining at Rabenwald dates back to 1820, today, approx. 100,000 tons of talc are mined annually, shipped to the nearby production plant by cable. Final talc products are shipped to customers all over the world. In order to prepare a new mining project at the Rabenwald mine, Rio Tinto Minerals Austria initiated an extensive biodiversity project. In 2001 this research project on biodiversity was initiated in cooperation with the nature park „Pöllauer Tal”. The open pit area of Rio Tinto Minerals Austria Rabenwald mine makes part of this natural park, which covers 123 km² in total. The biodiversity in the present and future mining areas was of special interest in order to draw conclusions for the sustainable development of local species and the region as a whole. Thus, a co-operation between the Natural Park and Rio Tinto Minerals Austria began, representing a partnership of traditional antagonists: nature and mine.

Solution Biologists investigated the habitat mine for several months and found out that the habitat mine gives room to 27 types of biotopes and 220 different plant species. Some of the species are yet listed on the endangered species’ list, which means that the post mine area provides a habitat for those species to resettle. As a special focus, the scientists’ compared the concepts of re-naturation (natural process that aims at closing up soils by pioneer plants) versus re-cultivation (seeds of weeds are applied by a spraying method). The investigation of advantages and disadvantages of both concepts resulted in valuable recommendations for the sustainable development of the post mining landscape.

Result The results of this unique study have been widely communicated in the local community as well as to all major stakeholders. A two-year-exhibition at the area illustrated the major outcomes to thousands of visitors. Furthermore, Rio Tinto Mineral Austria produced a small booklet which was widely distributed to regional and national stakeholders. The study’s results on re-cultivation and re-naturation concepts have also been forwarded to the Austrian Mining Authorities which are in charge of legislation for re-cultivation. The scientific results will be considered to optimize the legal framework and consequently increase ecological benefits for post mining areas.

Partners Nature park „Pöllauer Tal”

