

WATER MANAGEMENT CASE STUDY

Company: Incusa (feldspar and sand and gravel)

Location: Carrascal del Río, Spain

Type of site: Sand and gravel pit

Potential impact on water or groundwater	<p>The site is in an ecological area with a high level of protection. The water is discharged into a mountain river with salmon fisheries.</p> <p>The water consumption for cleaning is 1500 m³/h with two circuits: neutral an acid (feldspar production)</p> <p>Aggregates are by-products</p>
Action on	<p>Treatment plant / Mining waste treatment</p>
Description of the good practice	<p>95% of water recovery and recirculation</p> <p>5% of loss due to wet content in products and to the fresh water needed in acid circuit.</p> <p>In the beginning, acid water was neutralized in a sedimentation pond by precipitation of pollutant elements with excess of calcium hydroxide in a 12 hours reaction process.</p> <p>A new plant designed for a continuous pH monitoring and control, with addition of calcium hydroxide according to the pH of water and continuous extraction of the precipitate (solid) fraction in a 14 hours. A press filter reduces humidity to less than 5%</p>
Description of the positive effects on water/groundwater	<p>A better control of pH</p> <p>Disposal of the solid fraction with less water content</p> <p>Elimination of the risk of acid water drainage</p>