



## Mining-Related Hydrologic Studies

For mine development projects, understanding the surface water and ground water hydrology in the project area is of paramount importance, so that potential impacts due to mining can be assessed and mitigated, while potential mine water supplies can also be evaluated. In addition, both the operational and the retirement aspects of the mine should be evaluated during the initial studies of the mine feasibility so that issues related to changes in the hydrologic regime are understood upfront.

JCHA personnel can provide the following services for mining-related hydrology studies:

- Conduct water balance analyses
- Develop mine dewatering plans
- Prepare mine reclamation
- Develop mine water management plans
- Conduct seepage analyses
- Assist in the preparation of permit documents
- Provide expert testimony during permit process
- Develop quality assurance/quality control plans
- Model aquifer/stream interactions
- Develop aquifer and aquifer/stream interaction characteristics
- Provide surface and ground water sampling services
- Develop aquifer hydraulic characteristics through ground water testing
- Develop and maintain surface water flow gaging systems
- Design and install surface and ground water monitoring systems
- Develop water balances for operational and retirement aspects of the mine

