



## EASI Case Study

### Mitigation Credits Offer New Value for Reclaimed Mine Land

Central Valley, California

Compensatory mitigation credits offer new levels of value for reclaimed mine lands, boosting ecological productivity and generating measurable value for mining companies. This Case Study illustrates how improved mitigation credit market data and business-relevant methods motivated one company to pursue eco-uplift opportunities for a property in California's Central Valley.

#### Background

A gravel mining company successfully reclaimed a 60-acre property located in California's eastern Central Valley. Reclamation met all requirements of the State Mining and Reclamation Act (SMARA) and the property was released from bond.

The company considered additional ecological uplift at the property to earn wetland and conservation credits. Credits could be



earned by protecting, enhancing, restoring or creating (PERCing) ecosystem services such as water storage & filtration, aquifer recharge as well as creation of habitat supporting federal- or state-listed species. Earned mitigation credits have significant market value. They may be used to offset future development impacts, or may be sold to buyers having similar environmental compliance obligations.

#### The Challenge

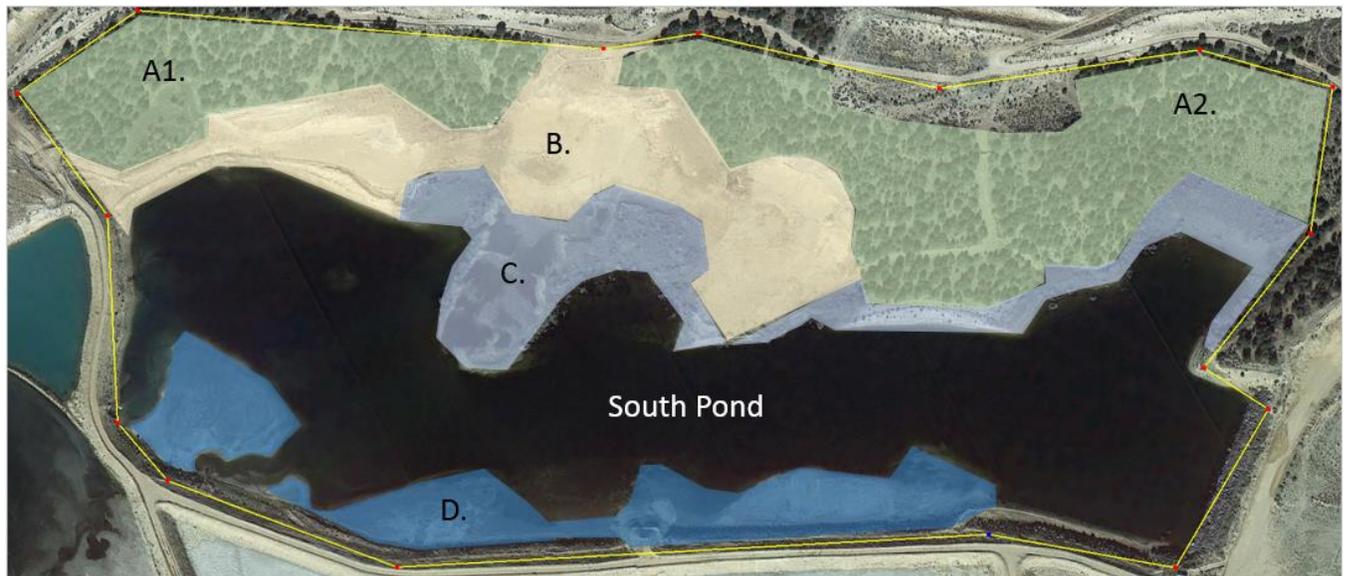
The business case for mitigation credit development is sometimes questioned, mostly due to lack of reliable revenue information. Development costs are typically well known, but information about mitigation credit sale prices has been lacking. Further, a comprehensive financial model comparing real costs-vs-benefits of mitigation credit development projects has been missing. Business certainty has needed to improve before business and industry would confidently invest in eco-uplift projects. This meant that collecting accurate price data in a reliable cost:benefit framework was necessary to lower business and optimize project gain.

A final challenge was negotiating the heretofore undeveloped policy pathway between a SMARA-released mitigation site and an agency-approved mitigation banking property. Cooperation was required between the California Department of Conservation (DOC) and the state and federal Interagency Review Team (IRT).



## The Solutions

EASI first gathered information from published reports and from available state and federal agency sources to determine the full ecological potential for the project site. This led to designation of parcels likely to have eco-lift potential qualifying the property for credits. Mitigation credits for riparian upland habitat, marsh wetland habitat, California red-legged frog, Swainson's hawk, valley elderberry longhorn beetle (VELB) and vernal pool species were considered. Ancillary benefits would occur for songbirds, migratory raptors, river otter and beaver.



*Figure 1. Potential PERC zones are identified for the project site.*

Second, EASI drew on its own unique set of 750 price records gathered from across the U.S. describing the value of five mitigation credit types: wetlands & streams, species & habitats, and water quality or nutrient credits authorized by state and federal agencies under the Clean Water and Endangered Species Acts. Mitigation credit sale price or value records were developed from publically available information. Each record has been given a unique identification number and is supported by hardcopy citations to satisfy future tracking and auditing needs.

Third, EASI applied its own mitigation banking financial model to tease out project development costs vs. benefits. The model allows cost results to be compared against market value of similar mitigation credit transactions captured for the project area.

Finally, the project team developed a rationale describing the public interest conservation value stemming from new, collaborative policy designed to encourage next-level ecological value for successfully reclaimed mine sites. This rationale was presented to the IRT in the presence of Cal DOC representatives. IRT members questioned the DOC staff and soon thereafter invited DOCs formal participation in the IRT for future, similar project proposals.

## Project Results

Costs to develop 40 wetland and conservation credits (vernal pool, riparian upland, VELB, Swainson's hawk) were estimated to be \$2.4 M including the conservation easement endowment.





For more information about the EASI Mitigation Credit Price Report or the Mitigation Credit Financial Model, contact: [info@easillc.com](mailto:info@easillc.com) or dial 415-706-6154.