



# EASI Project Opportunity

## Conservation Bank in California's Panoche Valley

### San Benito County



Compensatory mitigation banks offer profitable opportunities for farm and ranch landowners across the U.S., leading to unexpected revenues as well as boosting landscape level ecosystem service production. This Case Study illustrates how real-world mitigation credit market data, new profitability tools and extended local networks have come into play for a potential 330 acre conservation bank in California's Panoche Valley.

#### Background

The highly regarded Equine Rescue Center & Sanctuary (ERC), a non-profit providing refuge to older or injured horses and cattle, recently relocated from California's central coast to a 355-acre property in San Benito County, CA.

The ERC moved to an undisturbed grassland in the Panoche Valley south of Hollister, CA. The Valley is a roughly 30 square mile lowland frequented by a variety of species of interest, including golden eagle, prairie falcon and western burrowing owl; San Joaquin kit fox, giant kangaroo rat and Nelson's antelope squirrel; as well as blunt-nosed leopard lizard.



#### The Challenge

Rural landowners are often unaware that their properties might harbor an essentially undiscovered natural resource – ecological assets – that can be developed and taken to market like more conventional natural resources such as precious metals, oil or natural gas. Ecological assets develop when rare habitats like wetlands, vernal pools, grasslands or certain scrub and forest lands are converted to compensatory mitigation credits that can be



sold in the environmental marketplace. These credits are awarded to landowners by state and federal agencies when properties are protected, enhanced or restored to support rare habitats and species. Earned credits can then be sold to a wide range of buyers who purchase the credits to comply with environmental regulations.

In prior years the business case for mitigation credit development has been questioned as a result of inadequate information and assessment tools describing the benefits vs. costs of developing mitigation credits. Not only are development steps not well known, but information about the real market value of ecological assets has been lacking. Further, landowners can be put off by challenging and expensive permitting requirements for new mitigation development projects. A well-defined, value-based business approach has been needed. Landowners want to have the process clearly described, see accurate cost: benefit information, and understand options that lower risk and increase potential rewards.

### The Solutions

The EASI *Phase I Analysis* for new mitigation projects first draws on publically available reports and data to determine important ecological features at the project location. EASI learned that the Panoche Valley property was at the edge of three migratory corridors for species moving between California's Central Valley and the Coast Range to the west. Five species of interest were on or adjacent to the project site – burrowing owl, kit fox, kangaroo rat, leopard lizard and tri-colored blackbird.



Second, EASI drew on its *Mitigation Credit Price Report (MCPR)* and its *Mitigation Credit Availability Report (MCAR)* to support the business case for a conservation bank. The **MCPR** includes ~ 600 mitigation credit price records developed from publically available information, allowing reviewers to understand potential revenue opportunities at the Panoche Valley property. The **MCAR** includes information about the distribution, type and number of mitigation credits currently up for sale in the same region, allowing reviewers to predict how competition would come into play for a new conservation bank.

EASI Eco-Asset Solutions & Innovations Mitigation Credit Value Analysis for the Panoche Valley Conservation Bank													
<b>Mitigation Bank</b>													
Hardy Rate	NPV Calculation												
NPV	Year	Cash Flow	1	2	3	4	5	6	7				
NPV		\$ 746,366	\$ 637,063	\$ 637,063	\$ 637,063	\$ 637,063	\$ 637,063	\$ 637,063	\$ 637,063				
<b>Revenue</b>													
Holder	Mitigation Credit Sale Comparison												
Credit Sale Period (years)	Volume	Stream	Wetland	Shrub	Habitat	Parcel	Cost	Revenue	NPV				
A	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000				
B	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000				
C	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000				
D	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000				
E	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000				
F	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000				
G	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000				
H	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000				
I	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000				
Total	3,485,933												
<b>Cost</b>													
Site planning, design, legal, permitting (estimates subject to change)	Mitigation Bank Development Costs												
Planning	Site Plan	Construction	Monitoring	Construction	Mark Up	Overhead	Parcel	Conservation Bank	Endowment				
Legal	Design	Construction	Monitoring	Construction	Mark Up	Overhead	Parcel	Conservation Bank	Endowment				
Permitting	Design	Construction	Monitoring	Construction	Mark Up	Overhead	Parcel	Conservation Bank	Endowment				
Subtotal site planning, design, etc.	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000				
Construction and Materials	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000				
Site Relocation (CMAA)	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000				
Construction	\$ 65,400	\$ 65,400	\$ 65,400	\$ 65,400	\$ 65,400	\$ 65,400	\$ 65,400	\$ 65,400	\$ 65,400				
Construction Management	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000				
Subtotal Construction	\$ 75,400	\$ 75,400	\$ 75,400	\$ 75,400	\$ 75,400	\$ 75,400	\$ 75,400	\$ 75,400	\$ 75,400				
Conservation Bank Development Cost	\$ 258,773												
Conservation Bank Endowment	\$ 4,300												
Cost of Acquisition	\$ 38,500												
Endowment Total	\$ 741,323												
Total Cost	\$ 741,323												
<b>Mitigation Credits Calculation</b>													
Parcel	Credit Type	PERC Rating	PERC Status	Wetland Acres	Wetland Acres	Stream Acres	Species Area 1 Units	Habitat Acres	Stream LF	Species Area 2 Units	Habitat Acres	Total Functional Credits	Approval Status
A	Wetland	PERC-1	PERC-1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PERC
B	Wetland	PERC-1	PERC-1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PERC
C	Wetland	PERC-1	PERC-1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PERC

Third, EASI applied its own *mitigation banking financial model* to pinpoint project development costs vs. returns on investment. The financial model leads to a project ROI and net present value calculation developed from a host of scenario-planning variables built into an Excel spreadsheet.



### Project ROI and NPV

Costs to develop a conservation bank at the property were estimated to be \$475K including site biology, report writing, agency review fees and a conservation easement endowment. Including paying off the property mortgage, total costs were \$1.3M.

Sale of 330 conservation credits (aka 'species credits') could generate \$2.8M in revenue based on MCPR market comparables. Return on investment was thus projected to be 2.2:1.

However, for this particular project, the landowner chose not to invest the capital funds to develop a conservation bank. Instead he invited EASI to find a bank development partner, or to assist with an updated property valuation taking into consideration the market price for ecological assets (future conservation credits).

EASI subsequently introduced this turn-key project to mitigation banking companies in central and southern California, to real estate agents, and to business & industry who may find cost-optimum solutions to their own future compensatory mitigation needs.

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### EASI Products for this Case Study

The EASI **Mitigation Credit Price Report** is an Excel-based dataset showing about 600 mitigation credit values and transaction citations. The Report describes the distribution, type and market value of available wetland & stream, species & habitat credits used to comply with certain state or federal environmental regulations. The data also represent market patterns and trends for U.S. mitigation credits from 1990 to present day.

The EASI **Mitigation Credit Availability Report** is an up-to-date inventory of compensatory mitigation credits available from the nation's 1200 operating mitigation banks. The Report also gives bank location information as a visual reference to help identify nearby mitigation banks with similar credits and overlapping service areas.

The EASI **Mitigation Credit Financial Model (MCFM)** is a set of Excel-based tables constructed to mirror the range of mitigation credit development prospects at a project site. The table represents a total number of potential, earned wetland and/or conservation credits suited to local ecological conditions. Credit-acres are examined across a range of 12 development cost parameters, including conservation easement endowment costs. Costs are compared against known market values for property-similar mitigation credit types. Total ROI is calculated as a sum of project development costs vs. future sale of agency-authorized mitigation credits.

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