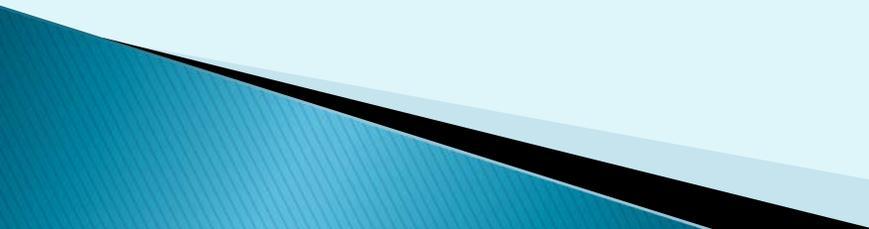


Methodology  
of the  
Environmental Scoring of  
Renewable Energy Projects  
by the  
California Energy Commission  
and  
California Public Utilities Commission

May 7, 2013



# Project Scoring Process

- ▶ CPUC requested the CEC Staff score 105 Commercial projects with approved Power Purchase Agreements for Project Environmental Viability in July 2012.
- ▶ CEC staff cross-checked CPUC Commercial projects database with Renewable Energy Action Team August 2012 database.
- ▶ When the two databases were combined, a total of 326 projects were eventually scored for the 6 DRECP Alternatives using the Environmental Scoring Matrix.
- ▶ Each project received a final score of the average for the 6 Alternatives.

# Databases Reviewed

	List Name	Number of projects	Project location	Source or use of project list
1	CPUC Commercial Project List	105	Lat/Long @ CEC	Projects with utility-approved Power Purchase Agreements
2	REAT List	221	Lat/Long @ CEC	CEC List of REAT Projects
	Total Projects Scored	326		

The 326 Projects were scored for each of the 6 Alternatives scenarios for a total of 1956 datapoints.

# Renewable Energy Action Team (REAT) Renewable Project Database

- ▶ Purpose to track projects state-wide that may need permitting assistance from REAT agencies
- ▶ Energy Commission has responsibility for managing the database
- ▶ REAT agencies identified the projects they were working on or knew about
- ▶ Counties were contacted to obtain information on projects under review

# Renewable Energy Action Team (REAT) Renewable Project Database

## ► List of projects published to CEC website

► [www.energy.ca.gov/33by2020](http://www.energy.ca.gov/33by2020)

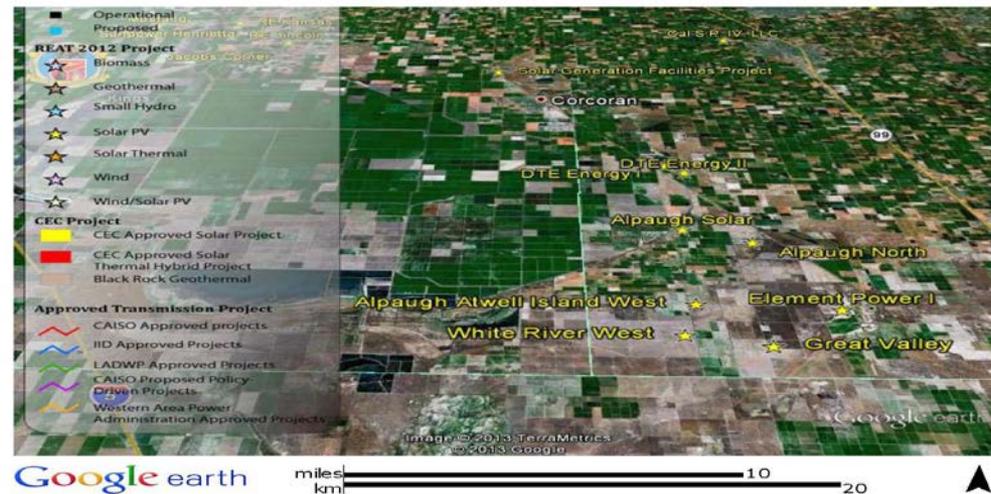
### RENEWABLE ENERGY ACTION TEAM [R]GENERATION TRACKING FOR RENEWABLE PROJECTS

Revised 1/30/13

Project Name	County	Developer	MW	Type
2013 Projects Under Review				
Solar PV				
1 Cool Earth	Alameda	Cool Earth		10 Solar PV
2 2094_Buzzelle	Butte	Pristine Sun Fund 1, LLC		1.2 Solar PV
3 2096_Cotton	Butte	Pristine Sun Fund 6 Butte PGE L		1 Solar PV
4 2125_Jarvis	Butte	Pristine Sun Fund 1, LLC		1 Solar PV
5 2129_Ballard	Butte	Pristine Sun Fund 6 Butte PGE L		1 Solar PV
6 2009_Retzer	Butte	Pristine Sun Fund 6 Butte PGE L		0.75 Solar PV
7 2172_Doering	Butte	Pristine Sun Fund 6 Butte PGE L		0.25 Solar PV
8 Concord Smart Energy Park	Contra Costa	Chevron Energy Solutions		1 Solar PV
9 Jack Roddy Ranch Golfcourse	Contra Costa	Jack Roddy		0.9 Solar PV
10 Schindler South Solar Center	Fresno	Schindler South Solar Center	Unk	Solar PV
11 Annedale Solar	Fresno	Annedale Solar, LLC	Unk	Solar PV
12 Gestamp Solar Asetym (2)	Fresno	Gestamp Asetym North Ame	Unk	Solar PV
13 Sunpower	Fresno	Sunpower	Unk	Solar PV
14 Gestamp Asetym Solar	Fresno	Gestamp Asetym North Ame		119 Solar PV

# Renewable Energy Action Team (REAT) Renewable Project Database

- ▶ Map of projects published to CEC website
- ▶ [www.energy.ca.gov/33by2020](http://www.energy.ca.gov/33by2020)



# Environmental Scoring Methodology

- ▶ A score was assigned based on the location of a project using one of five categories (see next slide).
- ▶ Scores were based on positive preferences for projects in Development Focus Areas or on disturbed lands.
- ▶ Negative (high/worse) scores were given for projects outside a DFA but within the DRECP boundary.
- ▶ Neutral scores (50) were assigned to projects on non-desert, non-disturbed lands outside of the DRECP.
- ▶ Rooftop mounted DG projects were assigned best (lowest) scores regardless of location relative to the DRECP and DFAs.

# Environmental Scoring Matrix

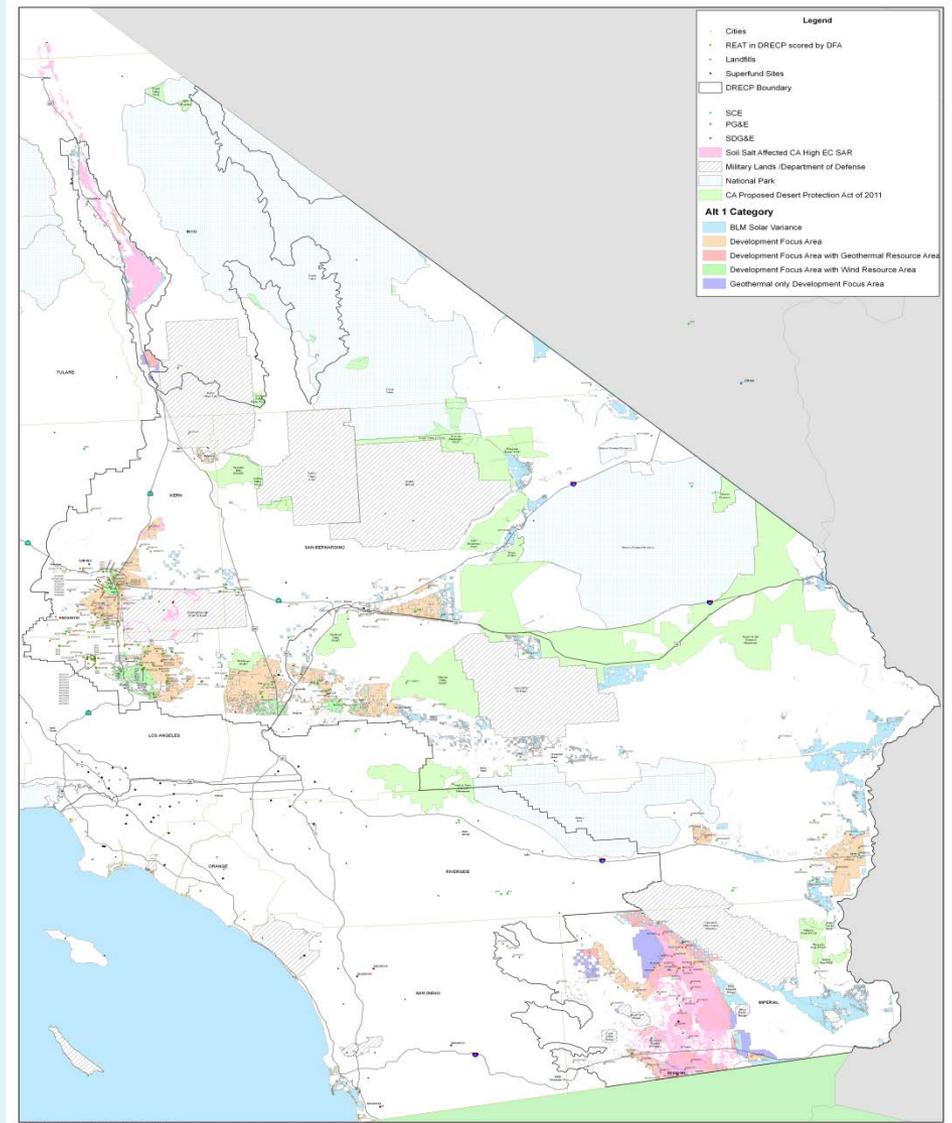
Category	DG?	Project Location			Score 0=best 100=worst	Location Examples
		In DRECP?	Disturbed Lands?	In a DFA?		
1	N	Y	N/A	Y	25	All ground-mounted projects in a DFA and not described by any other categories or located on active military bases.
2	N	Y	N/A	N	80	All ground-mounted projects outside of a DFA located within the DRECP boundary and not described by any other categories.
3	N	N	N	N/A	50	All projects outside the DRECP; all projects on productive agricultural lands including ground-mounted PV outside the DRECP; any project that could not be scored individually; all non-California projects.
4	N	Y	Y	N/A	20	Ground-mounted PV or other RE on abandoned agricultural lands; closed facilities (e.g., abandoned military bases, closed or active mines); degraded/disturbed lands.
5	Y	Y	Y	N/A	0	Roof-top solar PV, Solar PV projects located as shade structures in parking lots, ground-mounted PV at waste water treatment plants, on remote brownfields, remote DG on brownfields, landfills, remediated sites, at existing substations/electric facilities, Superfund sites, quarries, and industrial plants. This list of sites pertains to all types of renewable energy technologies. Projects in DFAs on degraded/disturbed soils.

# Environmental Scoring Process

- Ensure that all projects had a unique CPUC or CEC ID number linked to latitude and longitude coordinates.
- CEC Cartography input latitude and longitude data to produce maps for each of the 6 DRECP Alternatives.
- All 1956 (326 projects X 6 alternatives) data points were verified using Google Earth at 2 miles elevation or less depending on the project site.

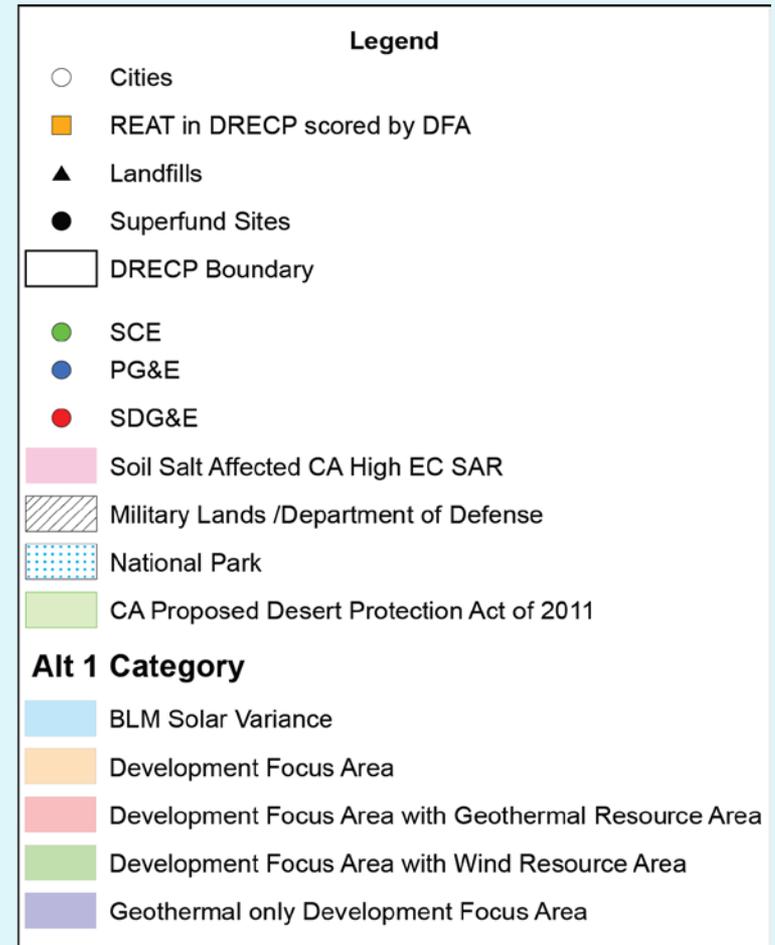
# Environmental Scoring Process

- The Development Focus Areas were mapped for each of the 6 DRECP alternatives.
- Project locations were added to each alternative map.
- Each project was assigned a score for each alternative.
- The 6 scores were averaged for a final score.

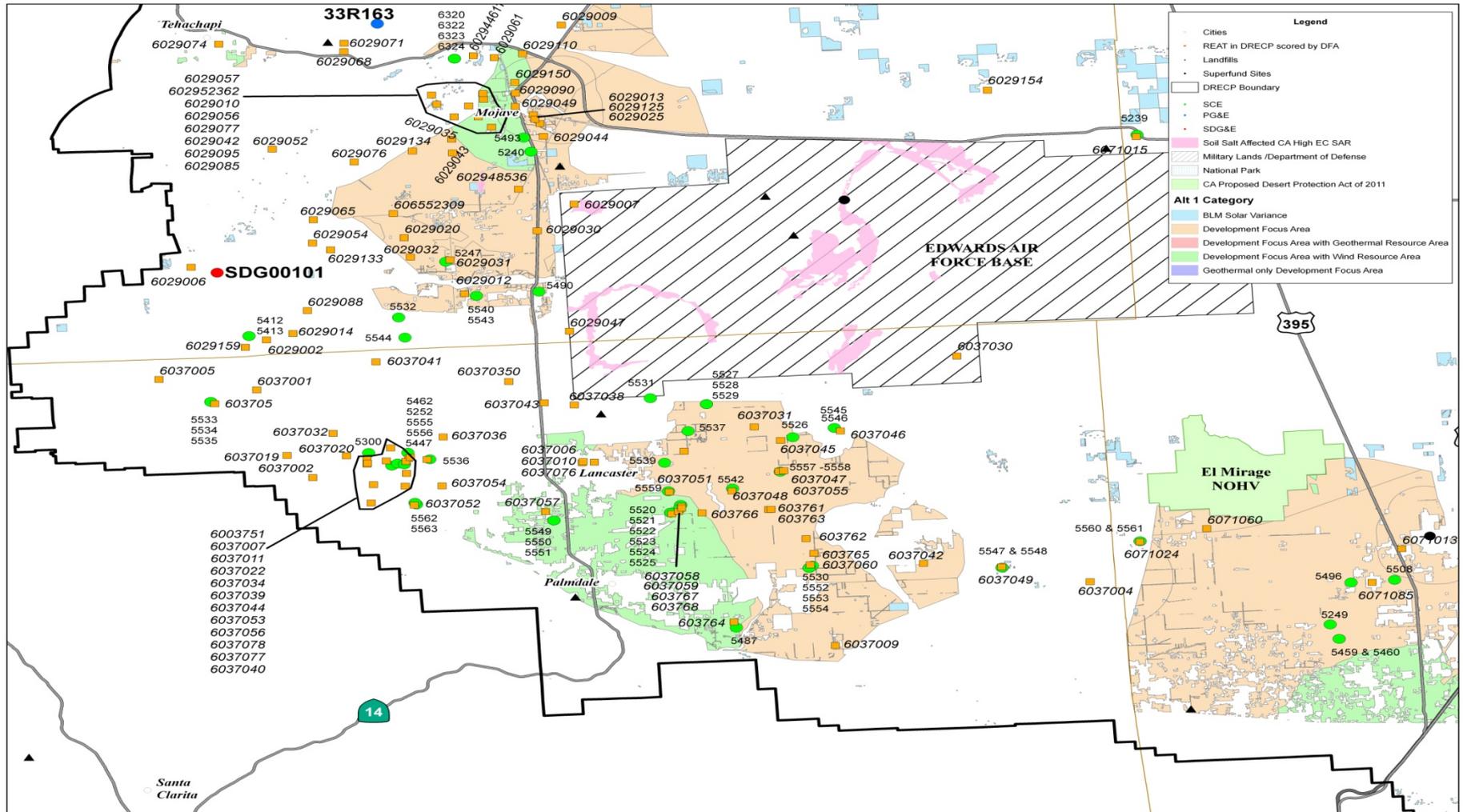


# Environmental Scoring Process

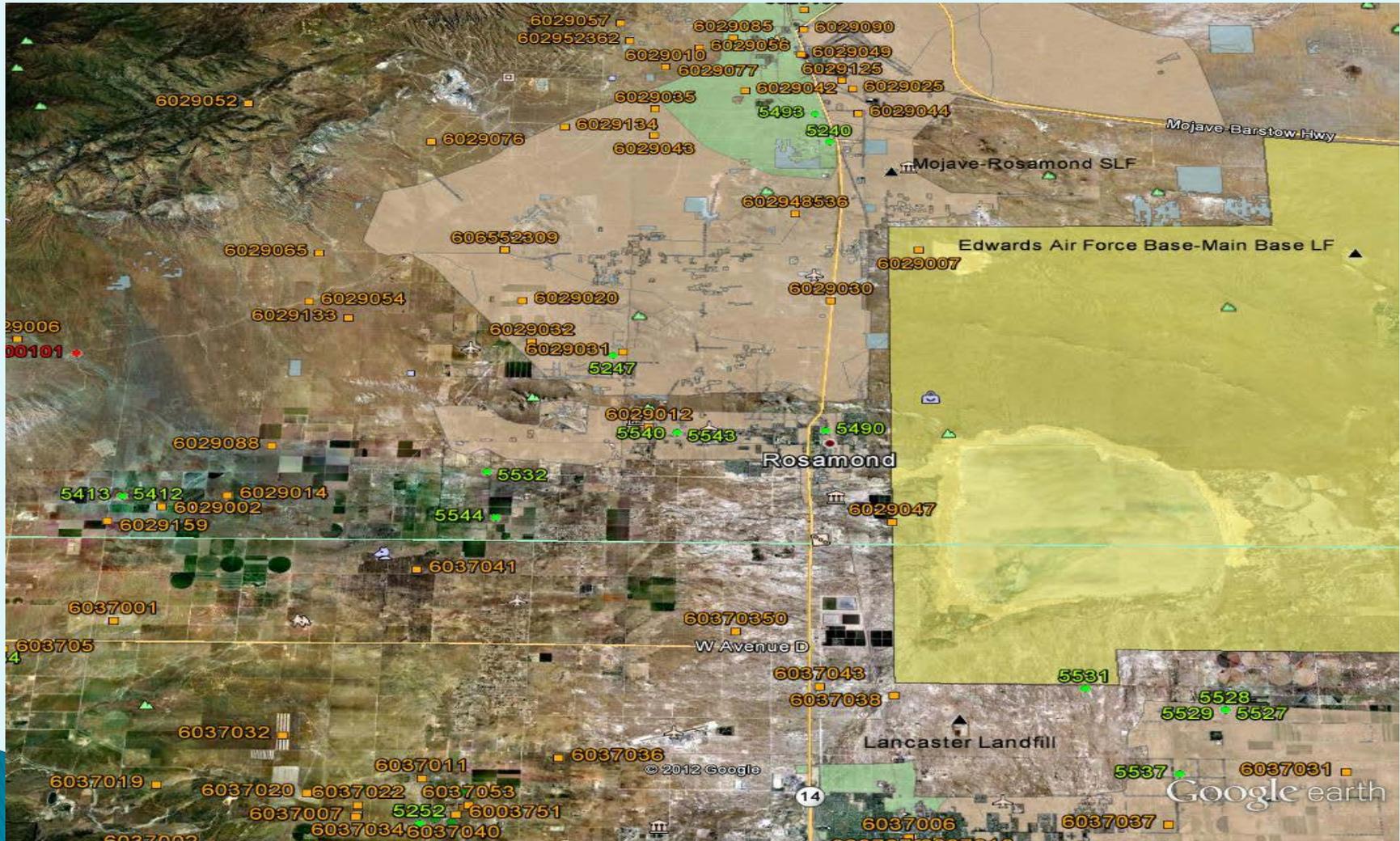
- Additional overlays for each DRECP Alternative included landfills, Superfund sites, and Salt-Affected soils.
- Each project was identified by its CPUC ID or CEC REAT ID on the maps.



# Each data point on the map was scored using the Environmental Scoring Matrix for each Alternative.



# All DRECP Alternatives scoring required the use of Google Earth to verify on-ground conditions



# Quality Control of Data

- ▶ After each map was produced, the database(s) were sorted by Unique ID to verify that each data point was scored. As the data points shown on the maps were scored, each project was highlighted on the map.
- ▶ The scores were then averaged and reported to CPUC.