

See Reference Map K

REGIONAL WILDCAT MAP

SHOWING WELLS NOT ON DIVISION FIELD MAPS

State of California - Department of Conservation
Division of Oil, Gas, and Geothermal Resources

NOTE: Wells with directional surveys on file with the division are indicated with a short line under the well symbol.
Current well status should be confirmed at the appropriate division office.

The Department of Conservation makes no warranties as to the suitability of this product for any particular purpose.

LEGEND

- Drilling
- Drilling - idle
- ⊕ Plugged and abandoned - dry hole
- Completed - oil
- Idle - oil
- ⊕ Plugged and abandoned - oil
- Completed - gas
- Idle - gas
- ⊕ Plugged and abandoned - gas
- ⊖ Completed - water disposal
- Idle - observation
- ⊕ Oil - converted to water disposal
- Completed - gas injection
- Buried idle
- ⊕ Abandoned - conductor
- ⊕ Gas injection
- ⊕ Gas - open to oil zone
- Water source
- ⊕ Plugged & abandoned - oil & gas
- Gas storage
- Observation
- ⊕ Gas - converted to gas storage
- ⊕ Abandoned oil - converted to water disposal
- Oil - converted to air storage
- ⊕ Plugged and abandoned - waterflood
- ⊕ Plugged and abandoned - oil to waterflood
- Idle - dual completion - producing oil and disposal
- ⊕ Field map boundary
- Field boundary

COUNTIES: RIVERSIDE AND SAN DIEGO



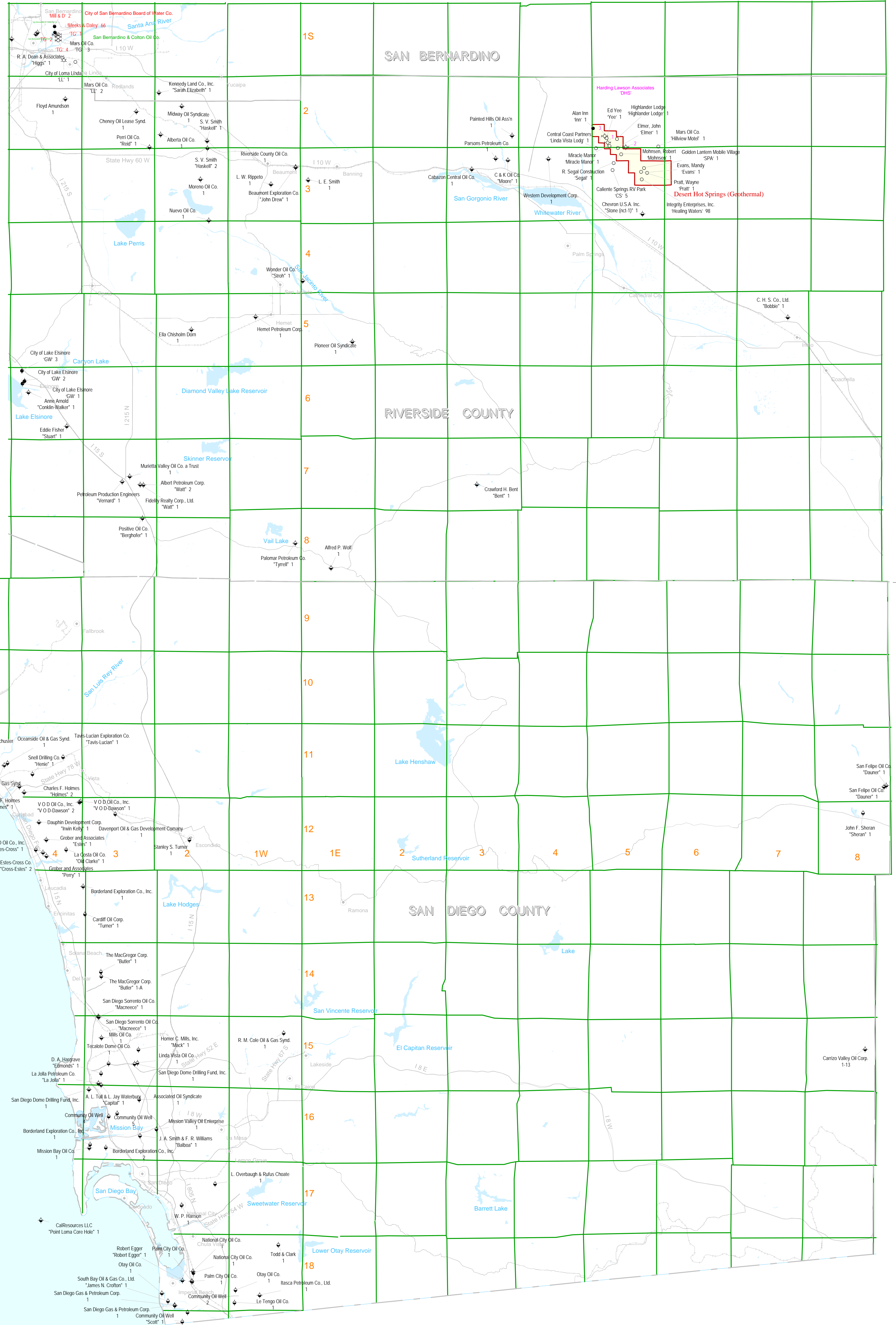
December 18, 2007

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W1-4

See Reference Map K

W1-8



Riverside County Integrated Project



EXISTING SETTING REPORT

by LSA Associates, Inc.

Revised March 2000

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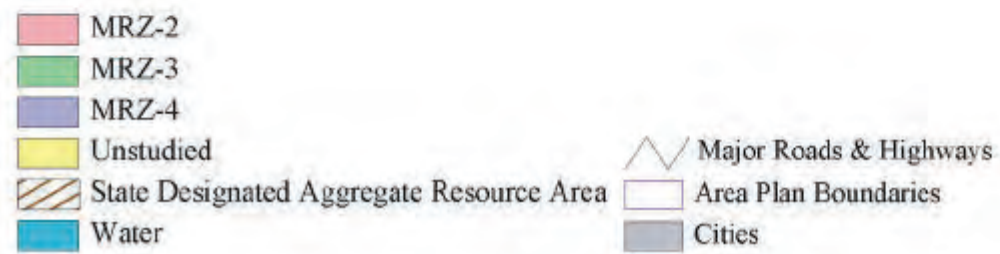
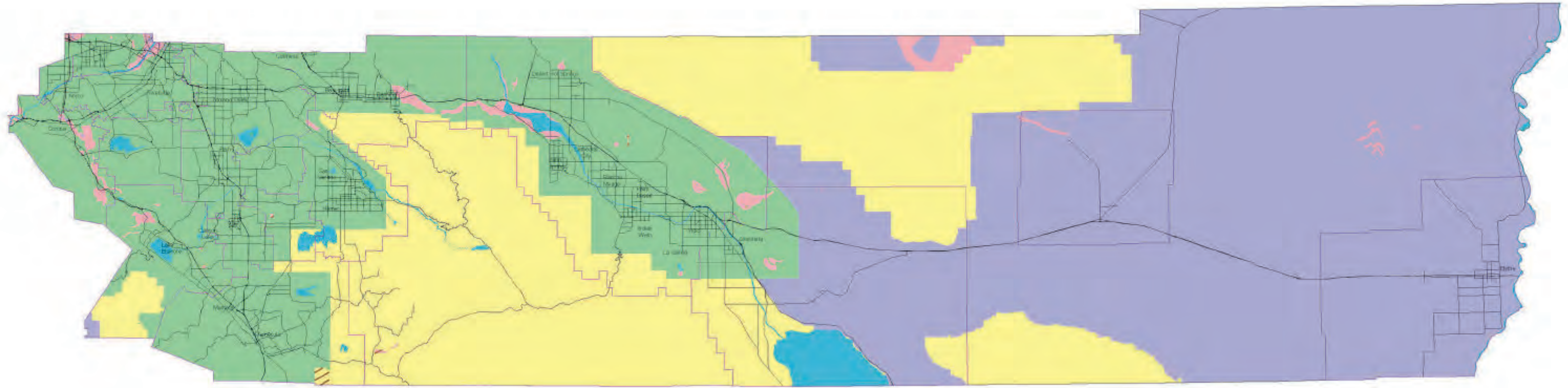
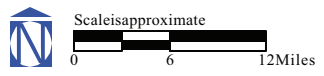


Figure 4.5.2



**MINERAL
RESOURCE AREAS**





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County of Riverside General Plan

Multipurpose Open Space Element

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Biomass Resources

Biomass resources refer to organic materials, either wastes, residues, or specific crops, that can be converted to an energy fuel to replace conventional sources or directly used in combustion processes. Due to agricultural production in the County, resources exist that enable this technology to be more widely employed.

Policies:

OS 13.1 Encourage economic biomass conversion under sensible environmental controls. (AI 71)

NON-RENEWABLE RESOURCES



SMARA mandates the classification of valuable lands in order to protect mineral resources within the State of California subject to urban expansion or other irreversible actions. SMARA also allows the state to designate lands containing mineral deposits of regional or statewide significance. The California Division of Mines and Geology (CDMG) has identified a number of significant aggregate resource areas throughout Riverside County.

The non-renewable resources discussed in this element are mineral resources and energy resources. The Mineral Resources section of this element addresses those resources that are classified under the State Mining and Reclamation Act of 1975 (SMARA). The Energy Resources section addresses petroleum resources as well as energy conservation.

Mineral Resources

In addition to agricultural production, mineral extraction is an important component of Riverside County's economy. The County has extensive deposits of clay, limestone, iron, sand, and aggregates. Classification of land within California takes place according to a priority list that was established by the State Mining and Geology Board (SMGB) in 1982, or when the SMGB is petitioned to classify a specific area. The SMGB has also established Mineral Resources Zones (MRZ) to designate lands that contain mineral deposits. The State of California has also designated Aggregate Mineral Resource areas within the County. These mineral resource zones are mapped in Figure OS-5.

The classifications used by the state to define MRZs are as follows:

- **MRZ-1:** Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.
- **MRZ-2a:** Areas where the available geologic information indicates that there are significant mineral deposits.
- **MRZ-2b:** Areas where the available geologic information indicates that there is a likelihood of significant mineral deposits.
- **MRZ-3a:** Areas where the available geologic information indicates that mineral deposits are likely to exist, however, the significance of the deposit is undetermined.
- **MRZ-4:** Areas where there is not enough information available to determine the presence or absence of mineral deposits.



Figure OS- 5 Mineral Resource Areas



Mineral deposits in the County are important to many industries, including construction, transportation and chemical processing. The value of mineral deposits within the County is enhanced by their close proximity to urban areas. However, these mineral deposits are endangered by the same urbanization that enhances their value.

The non-renewable characteristic of mineral deposits necessitates the careful and efficient development of mineral resources, in order to prevent the unnecessary waste of these deposits due to careless exploitation and uncontrolled urbanization. Management of these mineral resources will protect not only future development of mineral deposit areas, but will also guide the exploitation of mineral deposits so that adverse impacts caused by mineral extraction will be reduced or eliminated.

Policies in this section seek to conserve areas identified as containing significant mineral deposits and oil and gas resources for potential future use, while promoting the reasonable, safe, and orderly operation of mining and extraction activities within areas designated for such use, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately mitigated.

Policies:

- OS 14.1 Require that the operation and reclamation of surface mines be consistent with the State Surface Mining and Reclamation Act (SMARA) and County Development Code provisions.
- OS 14.2 Restrict incompatible land uses within the impact area of existing or potential surface mining areas.
- OS 14.3 Restrict land uses incompatible with mineral resource recovery within areas designated Open Space-Mineral Resources. (AI 11)
- OS 14.4 Impose conditions as necessary on mining operations to minimize or eliminate the potential adverse impact of mining operations on surrounding properties, and environmental resources.
- OS 14.5 Require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.
- OS 14.6 Accept California Land Conservation (Williamson Act) contracts on land identified by the state as containing significant mineral deposits subject to the use and acreage limitations established by the County.



Energy Resources

Energy resources provide the power necessary to maintain the quality of life enjoyed by most Riverside County residents. Many of the energy resources used within the County are non-renewable. Electricity and natural gas are the primary sources of household energy, while fossil fuels are the primary source of energy



Oil and gas seeps are natural springs where liquid and gaseous hydrocarbons (hydrogen-carbon compounds) leak out of the ground.

for most modes of transportation. Energy conservation and the substitution of renewable resources should be encouraged if these resources are to be preserved for the County's future generations.

Petroleum Resources

Riverside County's petroleum resources are deposited in the form of oil and gas seeps. The State Division of Oil and Gas does not report significant or active petroleum extraction in the County. Should extraction activities be undertaken in the future, the following policy provides direction for the siting of oil and gas facilities.

Policies:

- OS 15.1 Enforce California Division of Oil and Gas policies that direct the siting of oil and gas facilities in urban and non-urban areas.
- OS 15.2 Development of renewable resources should be encouraged.

Energy Conservation

Conservation is an important component of using energy resources in an efficient manner. Lowering energy demand by conserving both renewable and non-renewable energy is critical. Sensible energy conservation and design practices can also mitigate the "heat island" effects of urban development that increase local temperatures and result in increased energy demand.

In conjunction with the tactics proposed by the Southern California Association of Government's Regional Air Quality Management Plan, the following policies address energy conservation in Riverside County.

Policies:

- OS 16.1 Continue to implement Title 24 of the State Building Code. Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of Title 24. (AI 62)
- OS 16.2 Specify energy efficient materials and systems, including shade design technologies, for County buildings. (AI 68, 70)
- OS 16.3 Implement public transportation systems that utilize alternative fuels when possible, as well as associated urban design measures that support alternatives to private automobile use.
- OS 16.4 Undertake proper maintenance of County physical facilities to ensure that optimum energy conservation is achieved.
- OS 16.5 Utilize federal, state, and utility company programs that encourage energy conservation. (AI 63, 64)
- OS 16.6 Assist public buildings and institutions in converting asphalt to greenspace to address the heat island effect.
- OS 16.7 Promote purchasing of energy-efficient equipment based on a fair return on investment, and use energy-savings estimates as one basis for purchasing decisions for major energy-using devices. (AI 68, 69)





Mineral Resources On-Line Spatial Data

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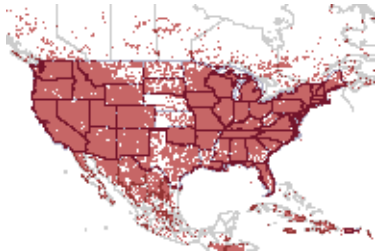
Mineral Resources Data System (MRDS)

MRDS is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. It subsumes the original MRDS and MAS/MILS.

MRDS is large and complex. This service provides a subset of the database comprised of those data fields deemed most useful and which most frequently contain some information, but full reports of most records are available as well.

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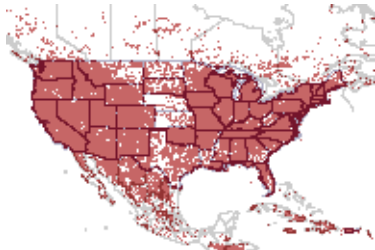
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