

**SANTA MONICA MOUNTAINS CONSERVANCY
GRANT APPLICATION**

Project Name: Liberty Canyon Wildlife Corridor Acquisition Project	Amount of Request: \$385,000		
Applicant Name: Mountains Recreation and Conservation Authority	Total Project Cost: \$760,000		
	Matching Funds: \$375,000		
	Lat/Long: 34° 8'26.65"N 118°43'28.47"W		
Applicant Address: 570 West Avenue 26, Suite 100 Los Angeles, CA 90065	Project Address: 27382 Canwood Road		
	County	Senate District	Assembly District
	Los Angeles	27	50
	Phone: 310-589-3230, ext. 121 Email: judi.tamasi@mrca.ca.gov	Tax ID: 77-0112367	

Grantee's Authorized Representative:
Amy Lethbridge, Deputy Executive Officer 323-221-9944, ext. 188
Name and Title *Phone*

Overhead Allocation Notice:

- ✓ Any overhead costs will be identified as a separate line item in the budget and invoices.
- ✓ The Conservancy encourages grantees to reduce overhead costs including vehicle and phone expenses.
- ✓ The overhead allocation policy has been submitted prior to or with the grant application.

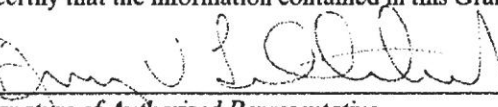
All check boxes must be checked

Project Description:
Acquisition of approximately 5-acre property (APN 2052-013-040) in the heart of Liberty Canyon wildlife corridor, north of the 101 freeway. Property is adjacent to MRCA land. Includes upstream terminus of blue line tributary of Liberty Creek, in the Malibu Canyon watershed.

Tasks / Milestones:	Budget:	Completion Date
Property Acquisition	\$375,000	June 30, 2017
Staff Time (Legal and Planning)	\$6,500	July 15, 2017
Appraisal, Title Reports and Appraisal Review	\$3,500	May 15, 2017

For Acquisition Projects: APN(s): 2052-013-040
Acreage: Approximately 5 acres

I certify that the information contained in this Grant Application form, including required attachments, is accurate.

 2-23-17
Signature of Authorized Representative *Date*



MOUNTAINS RECREATION & CONSERVATION AUTHORITY

Los Angeles River Center and Gardens
570 West Avenue Twenty-six, Suite 100
Los Angeles, California 90065
Phone (323) 221-9944 Fax (323) 441-8691

Proposition 1 Competitive Grant Application Liberty Canyon Wildlife Corridor Acquisition Project

NARRATIVE

The proposed grant would fully fund the acquisition of a five-acre parcel (Assessor Parcel Number [APN] 2052-013-040) that encompasses approximately 684 feet of United States Geological Survey (USGS) blueline stream identified as Liberty Canyon in the Santa Monica Mountains. The parcel is in the heart of the Liberty Canyon wildlife corridor. The Liberty Canyon inter-mountain range wildlife corridor connects the Simi Hills to the Santa Monica Mountains. The parcel is a fundamental acquisition to ensure the success of the proposed California Department of Transportation (Caltrans) 101 Freeway wildlife overpass. Staff of the Mountains Recreation and Conservation Authority (MRCA) is working with the owners on a sale. The parcel is located north of the 101 Freeway and abuts the approximately 321-acre Liberty Canyon Open Space to the west and approximately 5-acre Liberty Canyon-Hasserjian property to the south, both owned and managed by MRCA.

The parcel is near the headwaters of Liberty Canyon. Liberty Canyon is a tributary of Malibu Canyon with its Federally-listed steelhead trout population. The subject section of Liberty Creek is completely natural and supports a moderately-developed riparian community with valley oak (*Quercus lobata*), coast live oak (*Q. agrifolia*), and mulefat (*Baccharis salicifolia*), as well as mixed grassland.

Starting around 2002, MRCA has conducted creek restoration on the MRCA-owned Liberty Canyon-Hasserjian property, just south of, and adjacent to, the subject parcel. South of the 101 Freeway, MRCA and Santa Monica Mountains Conservancy (Conservancy) own several key open space parcels in the Liberty Canyon watershed. MRCA also holds a conservation easement on parcels just southwest of the Liberty Canyon Road/101 Freeway intersection. The Conservancy-owned parcel between Vendell Place and Agoura Road underwent a creek restoration approximately ten years ago. South of Agoura Road is a large MRCA parcel that has undergone creek restoration for the last five to seven years.

The subject parcel contains a well-used unofficial trail from the adjacent MRCA property to the south and the 101 Freeway, northwesterly to the MRCA-owned Liberty Canyon Open Space. The existing trail connects to other existing official trails, including a spur of the Rim of the Valley Trail, then northerly onwards to Cheesboro Unit of the Santa Monica Mountains National Recreation Area in the Simi Hills.

Trail users on the subject site can travel south, under the freeway, to access additional trails and open space. The trail on the subject site would also connect to the south to the proposed wildlife overpass, over the 101 Freeway. The design of the proposed freeway wildlife overpass includes a multi-use trail that would also connect to Agoura Road, south of the freeway. One freeway overpass design would actually span over

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Agoura Road. Both south-side-of-freeway trails would connect to an existing MRCA trailhead and trail that lead south into Malibu Creek State Park.

Making the unofficial trail on the subject property official will offer immediate potential for nature education with good public access beginning 0.25 mile from a Los Angeles Metropolitan Transportation Authority (MTA) bus stop at Agoura Road and Liberty Canyon Road. Easy parking is available just north of the freeway, with a gentle road leading to the subject property.

For over a decade, owner outreach to address public acquisition of the parcel was met with silence. A development group acquired the property approximately 19 months ago and contacted staff about potential acquisition. The owners subsequently received a ministerial plot plan approval from Los Angeles County. No public notice was required and hence there was no public input on the plot plan approval. Staff is in negotiations with the owners. The property has an access easement through the private property to the east. This is a regionally significant property that requires every effort to fully protect. A house on the property in the middle of the wildlife corridor would be extremely detrimental to its function.

The owners have made it clear that they are interested willing sellers. The MRCA is confident that the \$385,000 grant amount, plus the matching funds in the amount of \$375,000, can cover both direct acquisition costs, closing costs, and pre-acquisition expenses.

Development of the property would result in increased greenhouse gas emissions. The property has the development potential for one single-family residence. The development of the property would produce, on an annual basis, 137,630 pounds (62 metric tons) of carbon dioxide from daily trip generations, and an equivalent of 175,708 pounds (79.7 metric tons) of carbon dioxide from energy consumed for transportation needs that could be sequestered by 75.4 acres of forestland in one year. Additionally, the annual energy demands of a single-family residence on the property is equivalent to 27,999 pounds (12.7 metric tons) of carbon dioxide that could be sequestered by 12 acres of forestland in one year. Protecting this property would mean preventing a total of approximately 341,337 pounds (155 metric tons) of carbon dioxide per year that would otherwise be produced from developing the property.

Monitoring and reporting on the progress and effectiveness of the project will occur via written project status reports as requested by the Conservancy that confirm ongoing permanent protection of the property and the prevention by MRCA rangers and field personnel of detrimental activities.

This land acquisition project will not use the services of local or State conservation corps.

This land acquisition project will not employ new or innovative technology.

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Description of Property

The subject five-acre parcel (APN 2052-013-040) encompasses approximately 684 feet of USGS blue line stream in the Liberty Canyon watershed of the Santa Monica Mountains. The parcel lies near the headwaters of Liberty Canyon. Liberty Canyon is a tributary of Malibu Canyon with its Federally-listed steelhead trout population.

The parcel is a fundamental acquisition to make the proposed Caltrans 101 Freeway wildlife overpass feasible and functional. The Liberty Canyon inter-mountain range wildlife corridor connects the Simi Hills to the Santa Monica Mountains. The parcel abuts existing MRCA-owned open space to the west and south, including areas of creek restoration on the parcel to the south.

The subject section of Liberty Creek is completely natural and supports a moderately-developed riparian community with valley oak, coast live oak, and mulefat, accompanied by mixed grassland. The site was historically grazed. This section of Liberty Creek is important to provide high quality habitat and water in close proximity to both the proposed freeway wildlife overcrossing and the existing freeway undercrossing at the Liberty Canyon Road freeway interchange.

The western property boundary abuts Liberty Canyon Open Space owned by the MRCA. The parcel is separated from the 101 Freeway to the south by another MRCA-owned open space parcel.

Any wildlife species present in the Santa Monica Mountains could potentially occur within the subject parcel.

A house on the subject parcel would significantly and permanently degrade a regional habitat linkage acquired with many millions of public dollars over a 20-plus-year stretch of time.

The property is not located in or adjacent to a disadvantaged community. Disadvantaged communities would still benefit from public ownership of the property as a recreation, watershed, and viewshed resource.

BUDGET

The grant request is for \$385,000. Of that amount \$375,000 is budgeted for direct land acquisition payments. The remainder is for pre-acquisition and closing costs. The project relies on matching funds in the amount of \$375,000.

TIMELINE

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The proposed grant expenditure to acquire the one parcel is expected to occur by June 30, 2017.

RESPONSE TO EVALUATION CRITERIA

Project achieves the purposes of Proposition 1 per Water Code Section 79732(a)

The proposed Liberty Canyon Wildlife Corridor Acquisition Project involves the protection and restoration of California rivers, lakes, streams and watersheds. The proposed grant achieves at least four Proposition 1 purposes:

1) Protect and increase the economic benefits arising from healthy watersheds, fishery resources, and instream flow

The proposed project will protect and increase the economic benefits from healthy watersheds and instream flow by permanently protecting a minimum of 684 feet of a blueline stream that flows into Malibu Canyon and then Santa Monica Bay. The project includes substantial upland buffer habitat on both sides of the blueline stream. The parcel lies near the headwaters of Liberty Canyon. Liberty Canyon is a tributary of Malibu Canyon with its Federally-listed steelhead trout population.

2) Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors and the acquisition of water rights for instream flow

The proposed project will protect a minimum of 684 feet of a blueline stream that flows into the Santa Monica Bay. The subject section of Liberty Creek contains a moderately-developed riparian community, which has historically been subject to grazing. The property is part of the most important cross-freeway habitat linkage between the Santa Monica Mountains and the Simi Hills. The subject property is a key parcel in the Santa Monica-Sierra Madre Linkage, as identified by South Coast Wildlands. Liberty Canyon is a tributary of Malibu Canyon with its Federally-listed steelhead trout population.

3) Protect and restore rural and urban watershed health to improve watershed storage capacity, forest health, protection of life and property, stormwater resource management, and greenhouse gas reduction.

Permanent protection of a five-acre riparian community property ensures both higher water quality and sustained flow into Malibu Canyon. Protection of the Liberty Canyon watershed is integral to the overall health of Santa Monica Bay. The acquisition provides the greenhouse gas reduction benefits of eliminating a single family residence in a semi-rural area.

4) Reduce pollution or contamination of rivers, lakes, streams, or coastal waters, prevent and remediate mercury contamination from legacy mines, and protect or restore natural system functions that contribute to water supply, water quality, or flood management

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Permanent protection of five acres of riparian community and mixed grassland ensures both higher water quality and sustained flow into Malibu Canyon. Protection of the Liberty Canyon watershed is integral to the overall health of Santa Monica Bay. The permanent prevention of development on one parcel assures that no additional contaminants or pollution will come from the property into the Malibu Canyon watershed. Contaminants from upstream will have to permanently flow through a minimum of 684 feet of permanently protected riparian habitat before reaching these larger water resource systems. The property downstream is also protected open space. The permanent lack of impervious surface on the property will maintain existing water infiltration capacity to contribute to groundwater recharge.

The project will provide multiple benefits related to water quality, water supply, and/or watershed protection and restoration.

The permanent prevention of development on the parcel assures that no additional contaminants or pollution will come from the property into Malibu Canyon or Santa Monica Bay. Contaminants from upstream will have to permanently flow through a minimum of 684 feet of riparian habitat before reaching these larger water resource systems. The permanent lack of impervious surface on the property will maintain existing water infiltration capacity to contribute to groundwater recharge. Liberty Canyon is a tributary of Malibu Canyon with its Federally-listed steelhead trout population.

The proposed project will assure the permanent protection of at least five acres in an ecologically important watershed.

The project results in more reliable water supplies pursuant to the California Water Action Plan.

Permanent protection of a minimum five acres ensures both higher water quality and maintained flow into Malibu Canyon. Maintenance of the existing onsite recharge potential and release into the Liberty and then Malibu Canyon watersheds contributes to groundwater supply.

The protection of any land in the watershed maintains existing levels of surface water infiltration.

The project results in restoration or protection of important species and habitat pursuant to the California Water Action Plan.

The permanent protection of a minimum five acres also ensures that a minimum of 684 feet of woodland-lined blue-line stream will also be secured. The Malibu Canyon watershed and its tributaries are regionally significant and also support a Federally-listed steelhead trout population. The Liberty Canyon wildlife corridor is significant to the ecological integrity of both the Santa Monica Mountains and the Simi Hills.

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Project demonstrates capability of collecting and treating runoff from offsite sources and has potential for improvements to capture more untreated runoff.

Storm runoff into the site includes roughly 130 acres. This includes runoff from the private, undeveloped lots to the north and east, as well as the MRCA-owned Liberty Canyon Open Space to the west. If those undeveloped lots to the north and east are developed, potentially additional runoff may be directed to Liberty Creek.

The Sanitation Districts of Los Angeles County Calabasas landfill is located to the north of the site. Likely a small portion of the landfill property drains to Liberty Canyon.

Acquisition of the site would prevent the paving, and increase in impermeable coverage, associated with the construction of one house on the five-acre parcel. Permanent protection of the site would ensure that the runoff reaching the site would have time to percolate, filter, and naturally flow in the creek, prior to reaching the greater Malibu Creek.

There is considerable potential for habitat restoration on the site, as it has been historically grazed. This restoration can be designed to capture for more untreated runoff.

Applicant has proven that implementation of the project is feasible.

The MRCA legal staff has the expertise to acquire the subject property. The MRCA owns and manages the 321-acre Liberty Canyon Open Space west of, and adjacent to, the subject property. The proposed acquisition is a simple transaction from a willing seller.

Applicant has financial capacity to perform project on a reimbursable basis.

The MRCA has the financial capacity to perform this project on a reimbursable basis. MRCA has been implementing capital projects on a reimbursable basis for three decades, and anticipates reimbursable payments in its budgets. The MRCA also maintains a line of credit that can be drawn upon in the event of an extended delay.

Applicant, or active project partner, has successfully completed multiple projects of similar size and scope.

MRCA, founded in 1985, is a local public agency exercising joint powers of [Santa Monica Mountains Conservancy](#), the [Conejo Recreation and Park District](#), and the [Rancho Simi Recreation and Park District](#). MRCA's mission is to complement the work of these and other agencies in protecting land and public access to natural lands in southern California's mountains and waterways. The MRCA currently manages over 75,000 acres of parkland and holds fee title to approximately 20,000 acres. The MRCA

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owns and manages the 321-acre Liberty Canyon Open Space west of, and adjacent to, the subject property.

Completion of the project would assist a government agency in fulfilling a water resources protection, watershed ecosystem restoration or multi-benefit river parkway plan.

The Governor of California and the United States Environmental Protection Agency (EPA) approved the Bay Restoration Plan for the Santa Monica Bay in 1994 and 1995, respectively. The proposed acquisitions implement many of the proposed actions called for in the plan.

The Los Angeles River watershed is part of the *Greater Los Angeles County Integrated Regional Water Management Plan (IRWMP)*¹. The project will contribute to four of the region's five objectives:

- Improve Water Supply – through groundwater recharge
- Improve Water Quality – by protecting existing storm water capture
- Enhance Habitat – by preventing development and allowing natural processes to continue undisturbed on the subject property
- Enhance Open Space and Recreation – by converting the property to public ownership and making an unofficial well-used trail official, thus connecting the official trail system northerly to Liberty Canyon Open Space and the Cheesboro Unit of the Santa Monica Mountains National Recreation Area in the Simi Hills, and connecting south under and over the 101 Freeway to additional trails and public open space

The project also implements both the *Santa Monica Mountains Comprehensive Plan* and the Santa Monica Mountains Conservancy Workprogram.

Applicant, or project partner, has 1+ years experience maintaining and operating projects of similar size and scope.

The MRCA was established in 1985. The MRCA owns over 20,000 acres and manages over 75,000 acres of open space. The MRCA has maintained open space for over 30 continuous years. The MRCA owns and manages the 321-acre Liberty Canyon Open Space west of, and adjacent to, the subject property.

The project implements a major component of an existing relevant plan related to a major recreational public use facility or watershed ecosystem restoration plan.

The Governor of California and the United States EPA approved the Bay Restoration Plan for the Santa Monica Bay in 1994 and 1995, respectively. The proposed acquisitions implement many of the proposed actions called for in the plan.

¹ <http://www.ladpw.org/wmd/irwmp/index.cfm?fuseaction=update2013>

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As noted above, the project contributes to implementation of IRWMP objectives which include recreation.

It also implements the *Santa Monica Mountains Comprehensive Plan* and the Santa Monica Mountains Conservancy Workprogram.

Site contains substantial potential for restoration of rivers, lakes, streams, or coastal waters ecosystems.

There are approximately 684 feet of blueline stream on the subject parcel with a moderately developed riparian community. There is a mixed grassland community on the site, with extensive native grassland adjacent. The site has been subject to grazing. The site is a blank slate and provides ample opportunities for habitat restoration. The site can contribute to natural filtration of runoff from the upstream surrounding area, including the landfill to the north, prior to water draining to the greater Malibu Creek.

Any future habitat restoration onsite will complement other restoration efforts in the areas. Starting around 2002, MRCA has conducted restoration of the riparian corridor on the parcel to the south of, and adjacent to, the subject parcel. There is potential for additional riparian restoration on the subject parcel that would provide an enhanced cumulative benefit to the riparian habitat and wildlife corridor in the area.

The project provides a high quality access point for nearby open space, parkland, regional multi-modal trails, or water-based recreation.

The subject parcel contains a well-used unofficial trail from the adjacent MRCA property to the south and the 101 Freeway, northwesterly to the MRCA-owned Liberty Canyon Open Space. The existing trail then connects to other existing official trails, including a spur of the Rim of the Valley Trail, then northerly onwards to Cheesboro Unit of the Santa Monica Mountains National Recreation Area in the Simi Hills.

Trail users on the subject site can travel south, under the freeway, to access additional trails and open space. The trail on the subject site would also connect south to the proposed wildlife overpass, over the 101 Freeway. The design of the proposed freeway wildlife overpass includes a multi-use trail that would also connect to Agoura Road, south of the freeway. One freeway overpass design would actually span over Agoura Road. Both south-side-of-freeway trails would connect to an existing MRCA trailhead and trail that lead south into Malibu Creek State Park.

Making the unofficial trail on the subject property official will offer immediate potential for nature education with good public access beginning 0.25 mile from a MTA bus stop at Agoura Road and Liberty Canyon Road.

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The site is very accessible via vehicle from a paved road. A visitor could park north of the 101 Freeway. A gentle road leads directly to the property, making a visit possible for those with mobility impairments and/or for someone with limited time.

The project adds visitor-serving amenities, accessibility, and public safety improvements to public parkland with multiple ecosystem benefits.

The subject parcel contains a well-used unofficial trail from the adjacent MRCA property to the south and the 101 Freeway, northwesterly to the MRCA-owned Liberty Canyon Open Space. The existing trail then connects to other existing official trails, including a spur of the Rim of the Valley Trail, then northerly onwards to Cheesboro Unit of the Santa Monica Mountains National Recreation Area in the Simi Hills.

Trail users on the subject site can travel south, under the freeway, to access additional trails and open space. The trail on the subject site would also connect south to the proposed wildlife overpass, over the 101 Freeway. The design of the proposed freeway wildlife overpass includes a multi-use trail that would also connect to Agoura Road, south of the freeway. One freeway overpass design would actually span over Agoura Road. Both south-side-of-freeway trails would connect to an existing MRCA trailhead and trail that lead south into Malibu Creek State Park.

Making the unofficial trail on the subject property official will offer immediate potential for nature education with good public access beginning 0.25 mile from a MTA bus stop at Agoura Road and Liberty Canyon Road.

The site is very accessible via vehicle from a paved road. A visitor could park north of the 101 Freeway. A gentle road leads directly to the property, making a visit possible for those with mobility impairments and/or for someone with limited time.

Permanent protection of parcel has multiple ecosystem benefits including protection of the wildlife corridor, riparian and grassland habitats, and watershed.

The parcel is part of the scenic viewshed from the 101 Freeway.

The project results in new public access to a watershed resource with high interpretive and/or educational value, or enhances existing access.

The existing unofficial trail courses next to the stream corridor. Acquisition of the parcel secures official public access to an extremely valuable watershed resource with high interpretative value.

Making the unofficial trail on the subject property official will offer immediate potential for nature education with good public access beginning 0.25 mile from a MTA bus stop at Agoura Road and Liberty Canyon Road.

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The site is very accessible via vehicle from a paved road. A visitor could park north of the 101 Freeway. A gentle road leads directly to the property, making access possible for those with mobility impairments and/or for someone with limited time.

Project will benefit specially protected species pursuant to the California Wildlife Protection Act of 1990.

By permanently preventing development of the property, the project will benefit the Santa Monica Mountains lion population.

Extra Consideration Points

Quantifiable Carbon Reduction Points

The project develops or maintains multi-use trails that connect communities, provides access to public resources and reduces vehicle miles traveled.

Protection of the subject parcel would convert a well-used unofficial trail with no long-term protection into an official trail that heads north through MRCA open space to reach the Cheesboro Unit of the Santa Monica Mountains National Recreation Area in the Simi Hills.

Trail users on the subject site can travel south, under the freeway, to access additional trails and open space. In addition, the design of the proposed freeway wildlife overpass includes a multi-use trail that would connect to the trail on the subject parcel. The proposed freeway overpass includes a trail that would connect to the south to Agoura Road. One freeway overpass design would actually span over Agoura Road. Both south-side-of-freeway trails would connect to an existing MRCA trailhead and trail that lead south into Malibu Creek State Park.

The newly protected trail will offer immediate potential for nature education with good public access beginning 0.25 mile from a MTA bus stop at the Agoura Road and Liberty Canyon Road. It is also about 525 feet from the Liberty Canyon/101 Freeway interchange. The site is very accessible via vehicle from a paved road. A visitor could park north of the 101 Freeway. A gentle road leads directly to the property, making access possible for those with mobility impairments and/or for someone with limited time.

The trail from Cheesboro Canyon neighborhoods to Liberty Canyon neighborhoods will connect two communities within the City of Agoura Hills.

Appendix A: Carbon Emissions Calculations – Liberty Canyon Wildlife Corridor Acquisition

For one single family residential development, it is assumed that:

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- Each dwelling unit is an average of 1,583 square feet.
- 5 new residents will be added to the local population.
- Total number of daily trips generated will be 13 trips (per one dwelling unit).

Annual Carbon Dioxide Emitted from Daily Trip Generation

$$\frac{31.90 \text{ miles}}{\text{person} \times \text{day}} \times \frac{13 \text{ total trips}}{\text{day}} = 414.70 \text{ trip miles}$$

$$414.70 \text{ trip miles} \div \frac{21.60 \text{ miles}}{\text{gallons}} = 19.2 \text{ gallons}$$

$$\frac{19.64 \text{ pounds CO}_2}{\text{gallons}} \times 19.2 \text{ gallons} = 377.07 \text{ lbs. CO}_2$$

$$\frac{377.07 \text{ lbs. CO}_2}{\text{day}} \times \frac{365 \text{ days}}{\text{year}} = \frac{137,630.48 \text{ lbs. CO}_2}{\text{year}}$$

Annual Energy Consumed for Transportation Due to Residential Developments

$$\frac{77,370,000 \text{ BTUs Consumed}}{\text{person}} \times 5 \text{ persons} = 386,850,000.00 \text{ BTUs (113,374.55 kWh)}$$

This is equivalent to 175,708 pounds (79.7 metric tons) of carbon dioxide that could be sequestered by 75.4 acres of US forests in one year.

Annual Carbon Equivalent Emitted from Residential Units

$$\frac{38,800 \text{ BTUs}}{\text{ft}^2} \times \frac{1,583 \text{ ft}^2}{\text{DU}} \times 1 \text{ DU} = 61,420,400.00 \text{ BTUs (18,000.54 kWh)}$$

This is equivalent to 27,998.71 pounds (12.7 metric tons) of carbon dioxide that could be sequestered by 12 acres of US forests in one year.

Total carbon dioxide that would be produced annually from development:

$$137,630.48 \text{ lbs. CO}_2 + 175,708 \text{ lbs. CO}_2 + 27,998.71 \text{ lbs. CO}_2 = 341,337.19 \text{ lbs. CO}_2$$

Sources:

Bureau of Transportation Statistics. CA Average Daily Person Miles, 2009.
Bureau of Transportation Statistics. Est. On-Road Fleet Fuel Economy, 2012.
Bureau of Transportation Statistics. State Facts interactive map, 2012.

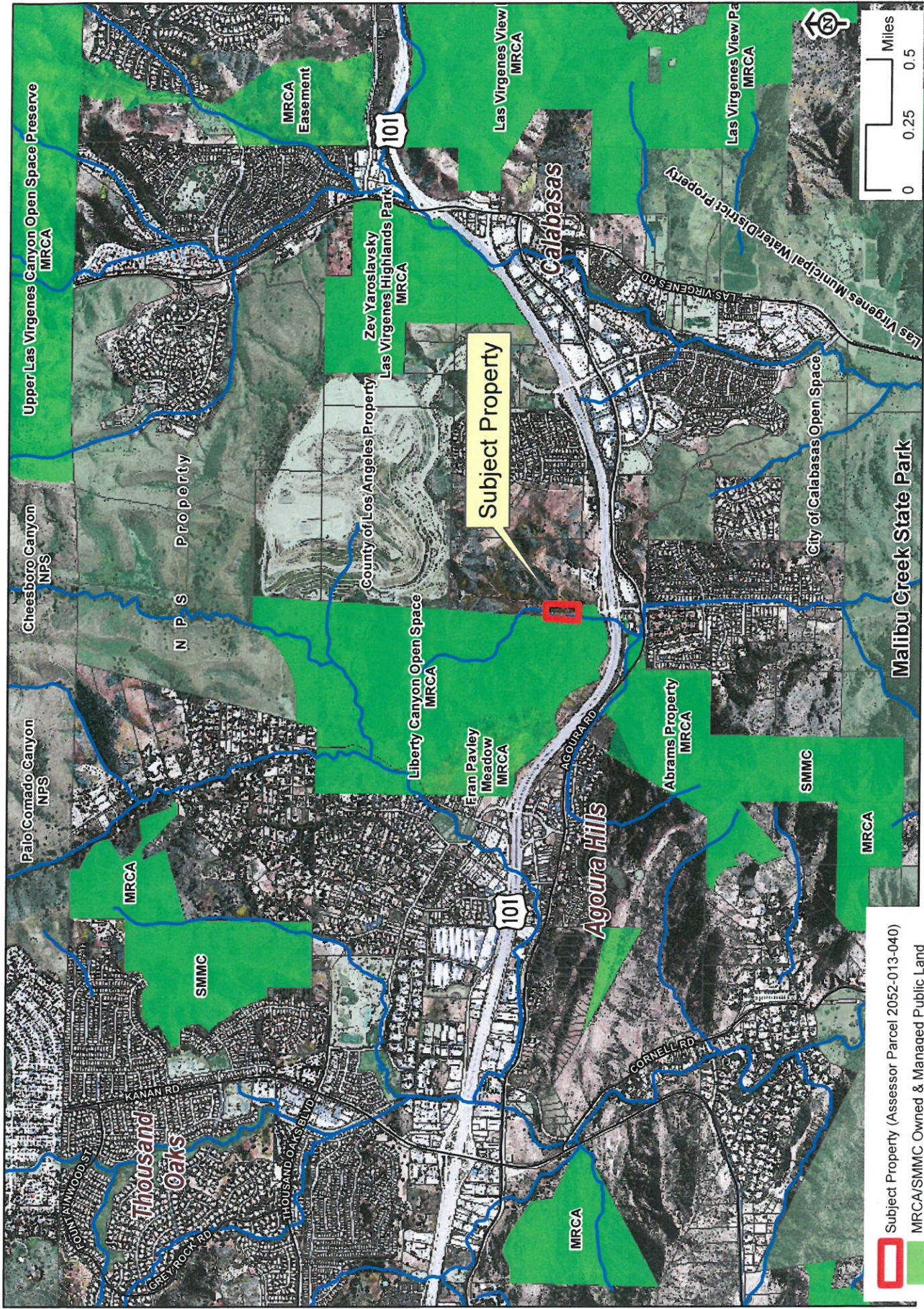
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Energy Information Administration (EIA). Frequently Asked Questions. How much carbon dioxide is produced by burning gasoline and diesel fuel?

EIA. Residential Energy Consumption Survey, California, 2009, Table CE1.5 Summary Household Site Consumption and Expenditures in West Region, Divisions, and States.

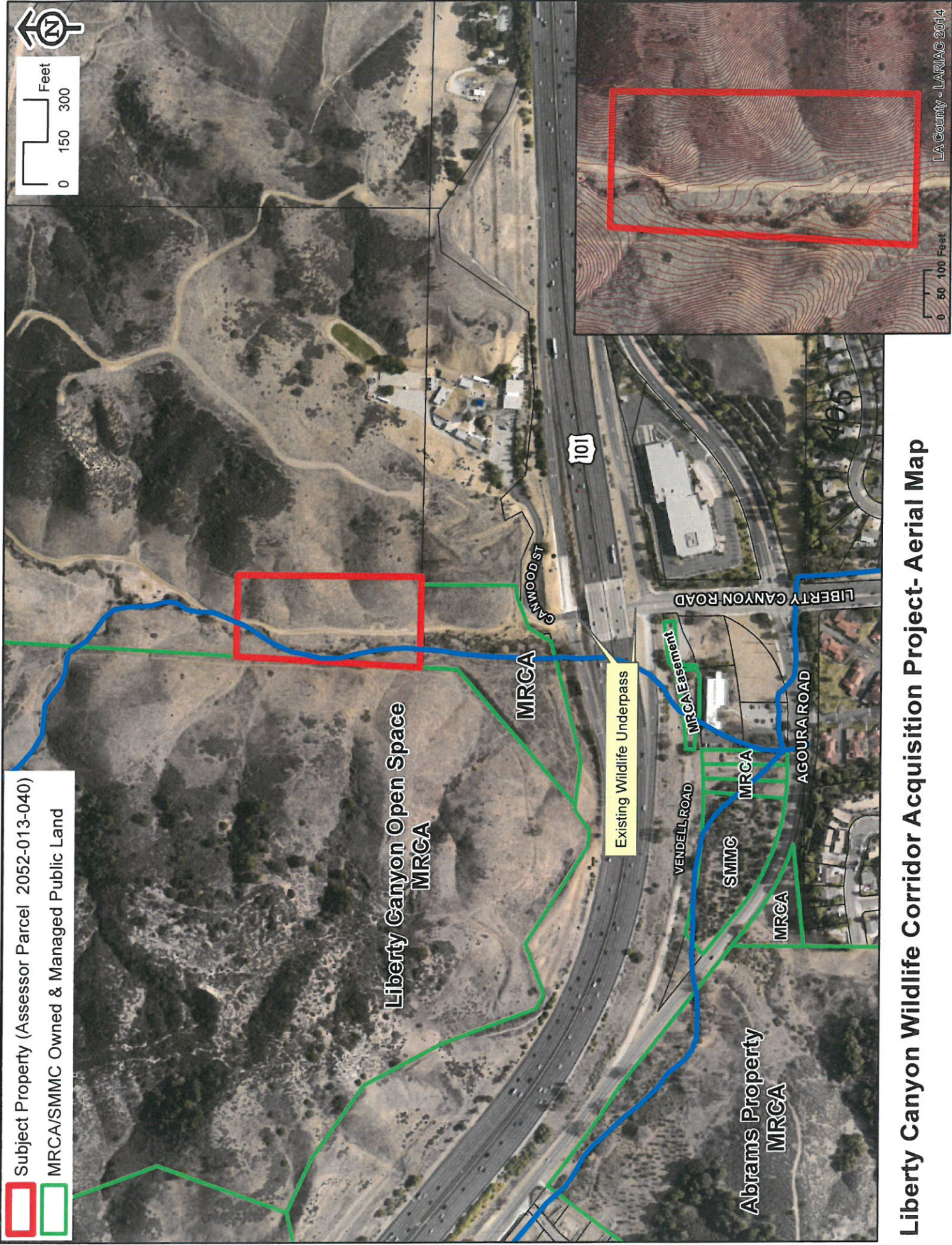
EIA. Residential Energy Consumption Survey, California, 2009, Table HC10.13 Average Square Footage of West Homes, by Housing Characteristics, 2009.

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

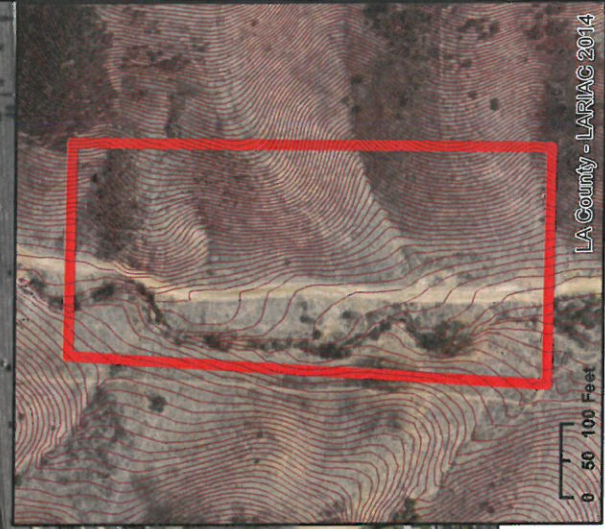


▭ Subject Property (Assessor Parcel 2052-013-040)
▭ MRCA/SMMC Owned & Managed Public Land
▭ Other Public Land

Liberty Canyon Wildlife Corridor Acquisition Project- Vicinity Map

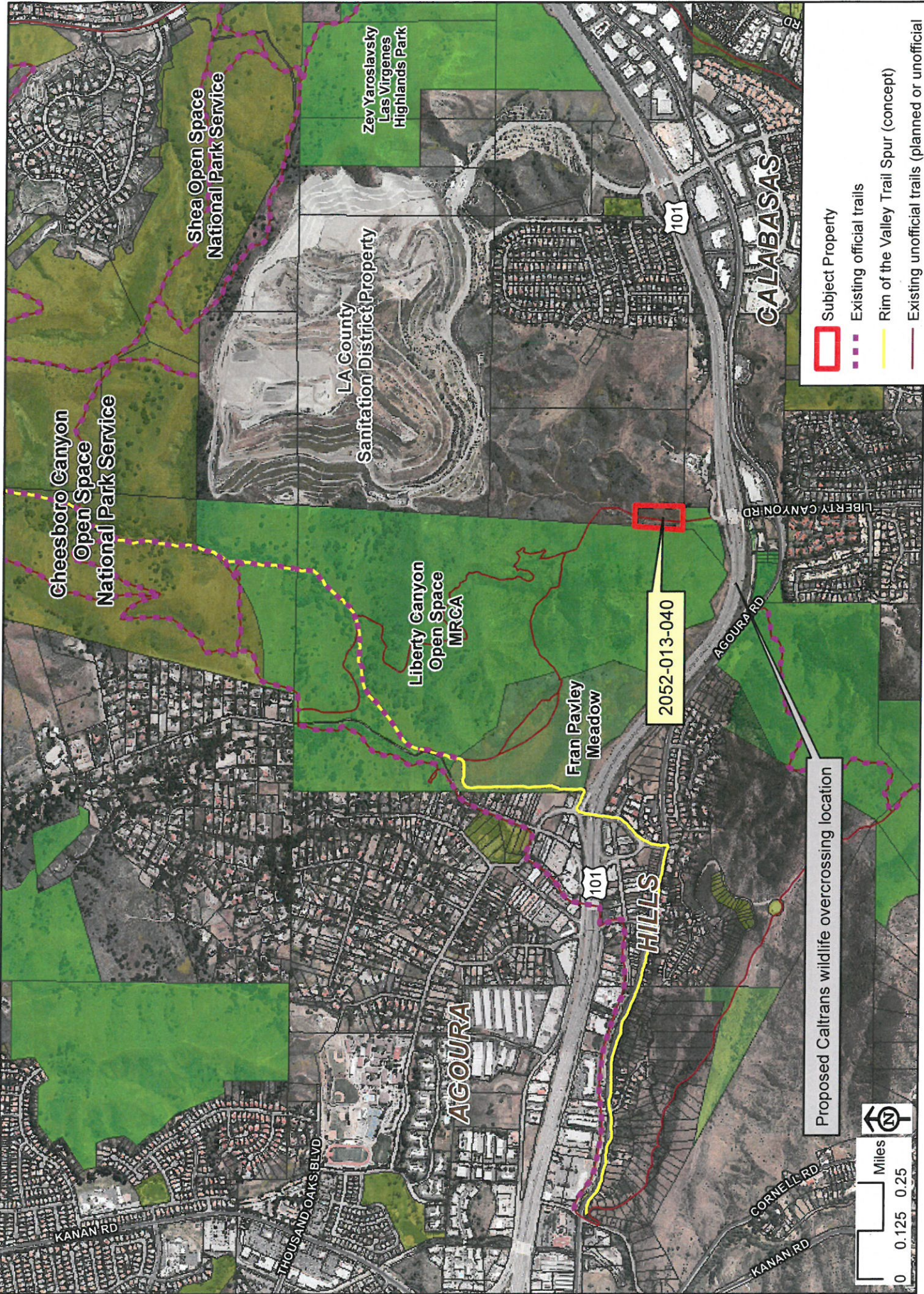


- Subject Property (Assessor Parcel 2052-013-040)
- MRCA/SMMC Owned & Managed Public Land



LA County - LARAC 2014

Liberty Canyon Wildlife Corridor Acquisition Project-Aerial Map



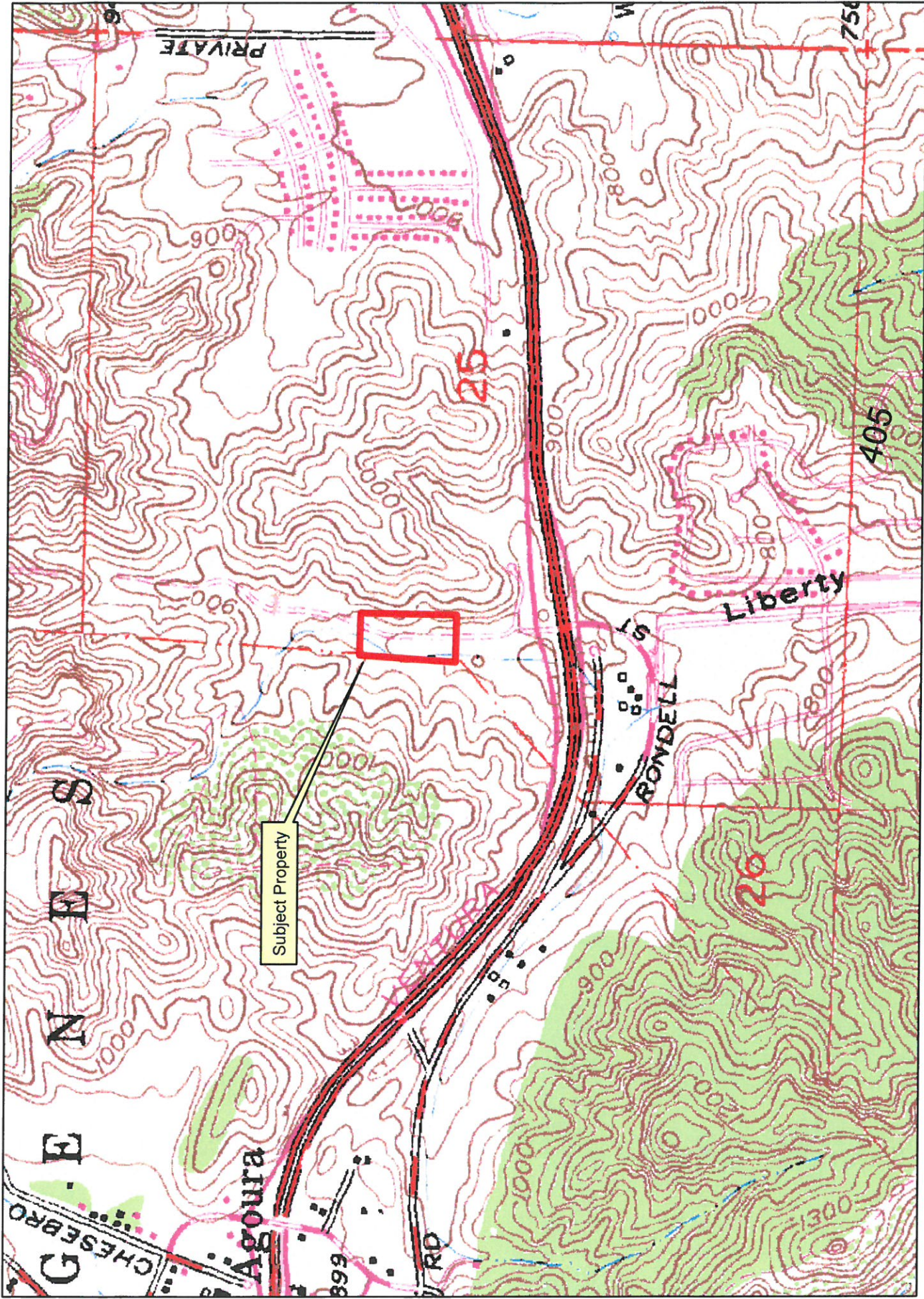
- Subject Property
- Existing official trails
- Rim of the Valley Trail Spur (concept)
- Existing unofficial trails (planned or unofficial)
- MRCA Managed Property
- Other Public Parklands

2052-013-040

Proposed Caltrans wildlife overcrossing location

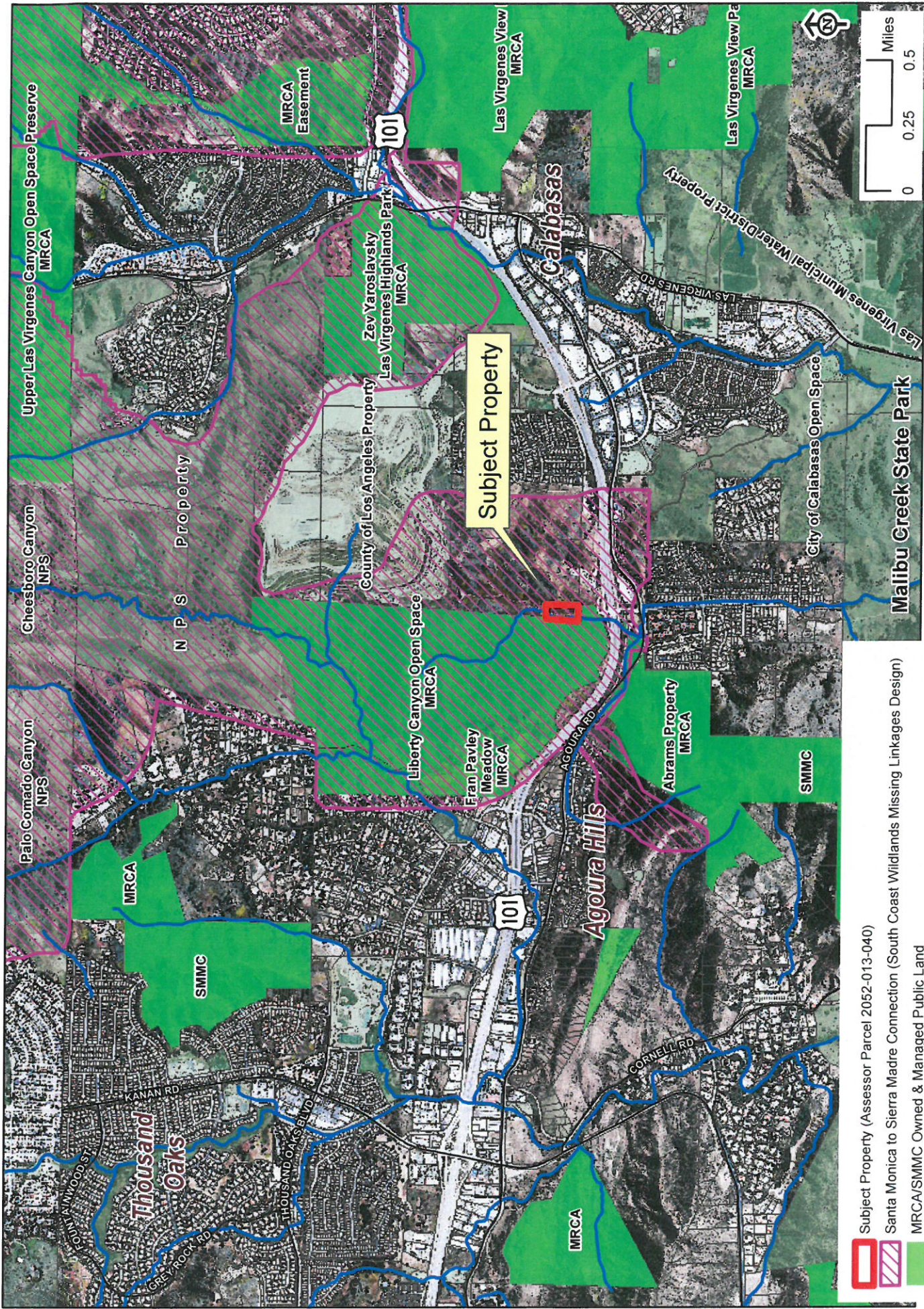






Liberty Canyon Wildlife Corridor Acquisition Project- Trails Map



Liberty Canyon Wildlife Corridor Acquisition Project- USGS Map

USGS 7.5' Calabasas Quadrangle



-  Subject Property (Assessor Parcel 2052-013-040)
-  Santa Monica to Sierra Madre Connection (South Coast Wildlands Missing Linkages Design)
-  MRCA/SMMC Owned & Managed Public Land
-  Other Public Land

Liberty Canyon Wildlife Corridor Acquisition Project- Habitat Linkage Design Map