

OCT 13 2009

Craig L. Cantrell
29843 Arline Street
Canyon Country, CA 91351
(661) 299-9081

October 12, 2009

Mr. Mitch Glaser
Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

**RE: 1) LAND USE AND ZONING CHANGES FOR PARCEL 3231-014-024
2) GENERAL PLAN, HIGHWAY PLAN, O.V.O.V. AND SKYLINE RANCH
(D.E.I.R.) REGARDING CRUZAN MESA ROAD**

Dear Mr. Glaser:

On behalf of the Cantrell Family Trust (family property owners for 75 years) and a 10 year resident of Canyon Country myself, I applaud you for making a grand effort to plan for the future. We want to go on record that, in general we are in agreement with the Zoning and Land Use changes being proposed if future building density is not reduced and the property tax rate is not increased. It appears that future building density is being reduced from a combination of U2 & HM to solely RL1 and any property tax rate change for the new designation is unknown.

Parcel 3231-014-024 is an approximate 36 acre piece of raw land at the end of county maintained paved Arline Street in Canyon Country. It begins where Arline Street ends and turns into Plum Canyon Fire Road (which is planned to become Cruzan Mesa Road going through the Skyline Ranch Project to Whites/Plum Canyon). There is a fire hydrant within less than 200 feet of the property, electricity, cable, phone and gas lines already present. This is not in a remote location.

In addition, the properties at the entrance are residential, being zoned H18 (the Forest Park 1929 Troutman Tract) and H5 (north side of Arline Street). It is only natural for this property to be developed as residential in the future at a higher density than one dwelling per acre with a like Land Use category of H5 to H18. The future addition of Cruzan Mesa Road further illustrates this point.

As a resident currently living on Arline Street, I support the improvement of Arline Street to Cruzan Mesa Road if it includes public: water system, sewer system, underground utilities and proper above/underground drainage with curbs. Improvement of this road was on the county plan for many years (notices were sent out in the 1970's or 1980's), yet as noted in the County of Los Angeles Department of Regional Planning - Skyline Ranch Project (D.E.I.R.) on the top of Page 4.Q-8, Figure 4.Q-1, entitled: Existing Land Use Designations (copy attached with Parcel 3231-014-024 drawn in), it states:

"NOTE:

*The proposed Cruzan Mesa Road
is not shown on the Draft General Plan,
Draft Highway Plan (September 2008)."*

Although you may already have been forwarded a copy of my August 2, 2008 letter to Mr. Micheal D. Antonovich regarding this property, I have attached it for further reference (6 pages, some two-sided).

With that said, I have the following questions:

- 1) Do the Land Use / Zoning changes from U2 & HM / A1-1-10000 to RL1 / A-1-1 reduce the ability to build 3.4 to 6.6 homes per acre in the future?
- 2) If the property becomes RL1 / A-1-1, does this limit the ability to change that designation to H5-H18 in the future?
- 3) Is there a tax rate change on the property with the proposed Land Use and Zoning? If so, what is it?
- 4) What is the status of improving Alrine Street and Plum Canyon Fire Road to Cruzan Mesa Road? Why is it not included in the Draft General Plan and Draft Highway Plan?

Thank you for the opportunity to provide input as the county, city and developers work together to make this valley better for all.

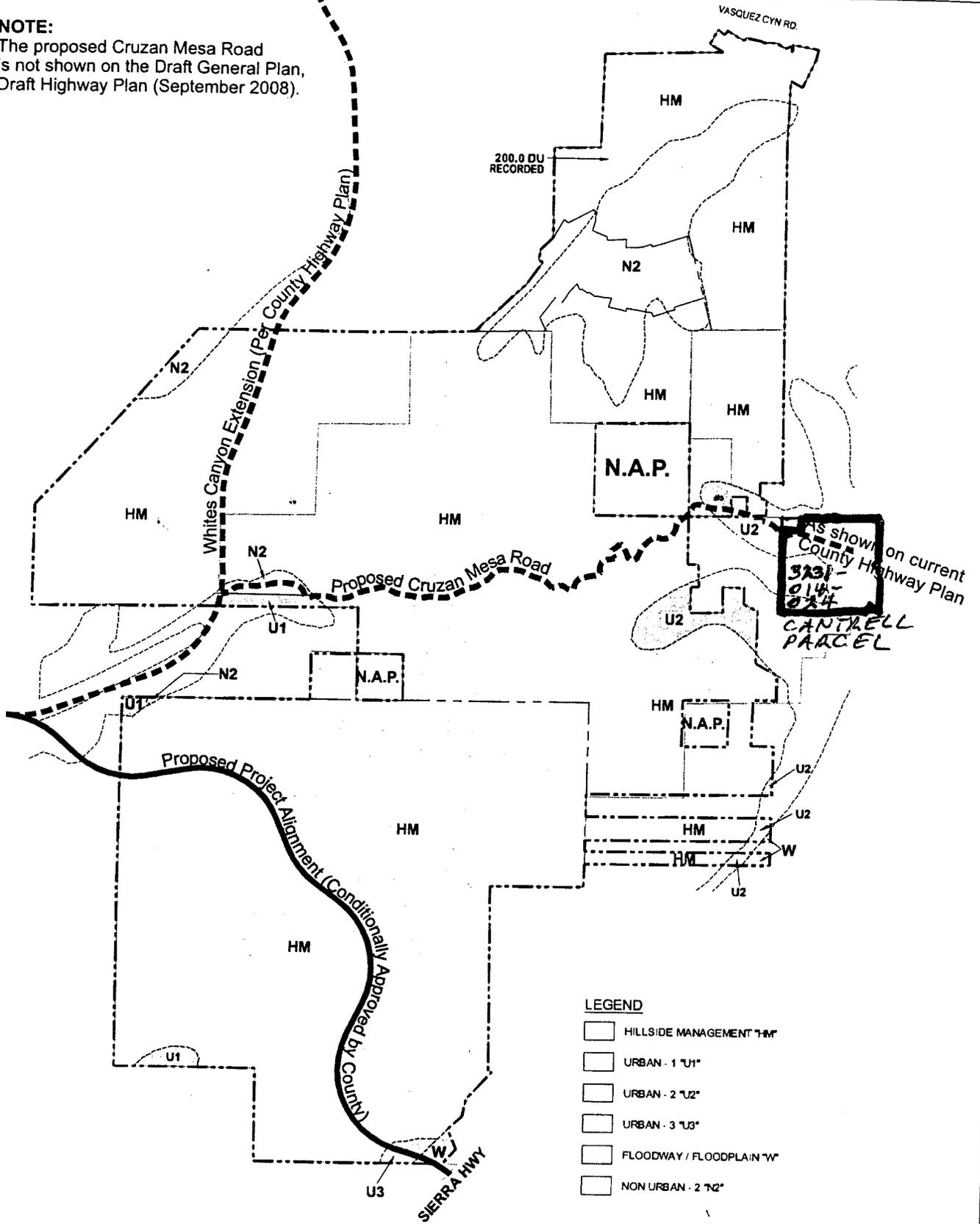
Sincerely,



Craig L. Cantrell

NOTE:

The proposed Cruzan Mesa Road is not shown on the Draft General Plan, Draft Highway Plan (September 2008).



Not to scale

Figure 4.Q-1
Existing Land Use Designations

Craig L. Cantrell
29843 Arline Street
Canyon Country, CA 91351
(661) 299-9081

August 2, 2008

Mr. Micheal D. Antonovich
Supervisor, Fifth District County of Los Angeles
(869 Kenneth Hahn Hall of Administration)
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisor Antonovich:

I am writing on behalf of the Cantrell Family Trust regarding a large parcel of raw land within your Fifth District County of Los Angeles that has been in our family for many years. Parcel 3231-014-024 is located about one mile north of the new College of the Canyons satellite campus on Sierra Highway and the current City of Santa Clarita border, at the west end of paved Arline Street. It is within the Santa Clarita Sphere of Influence (closest cross streets are Sierra Highway and Sand Canyon). Attachment #1 is a local area street map and attachment #2 (2-sided) are property parcel maps, all for your reference.

It is my understanding that this parcel is larger than the new College of the Canyons campus, measuring approximately 36 acres in size and contains the entrance to Plum Canyon Fire Road on its east side that extends off of Arline Street into the future planned Skyline Ranch project. It is also my understanding that virtually all property bordering its west side has been committed to this project. The plans for The Skyline Ranch Project indicate Arline Street and the Plum Canyon Fire Road as a new future highway called Cruzan Mesa Road (labeled, Per Highway Plan). Attachment #3 (2-sided) are pages from The Skyline Ranch Project (County Project No. 04-075, Tentative Tract Map No. 060922) showing the location of Parcel 3231-014-024 in relation to the project itself.

NOTE
CORRECTION
→

Although the Cantrell Family Trust is not actively pursuing sale of this property currently, my goal is to open up communication to examine how best to incorporate our property into the Fifth District County of Los Angeles future growth needs for: schools, transportation, healthcare, water, sewer, general infrastructure, housing, etc...

The Cantrell Family Trust goal is to maximize our return on investment while best adding to the local community's future welfare. Tax consequences are a key consideration for us in any ultimate future property commitment.

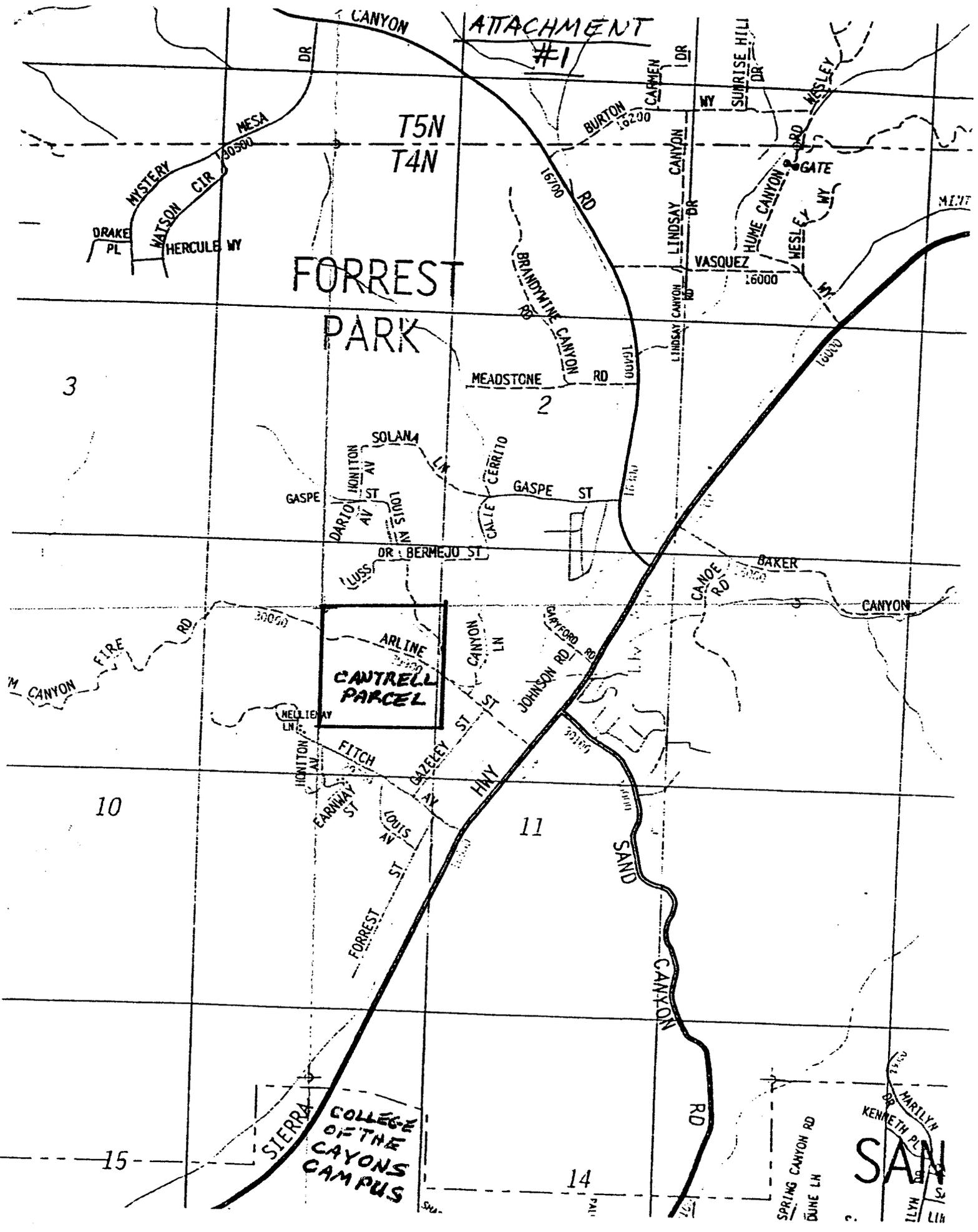
Please take a minute of your time to review this 36 acre property for any possible advantages it may provide the Fifth District of Los Angeles County in its' local area growth needs for the future.

I am available to meet anytime if need be and look forward to hearing from you with any advice you can provide on how to proceed in opening up consideration communication regarding the future use of this property to benefit all.

Sincerely,



Craig L. Cantrell



ATTACHMENT #1

T5N
T4N

FORREST
PARK

3

2

10

11

15

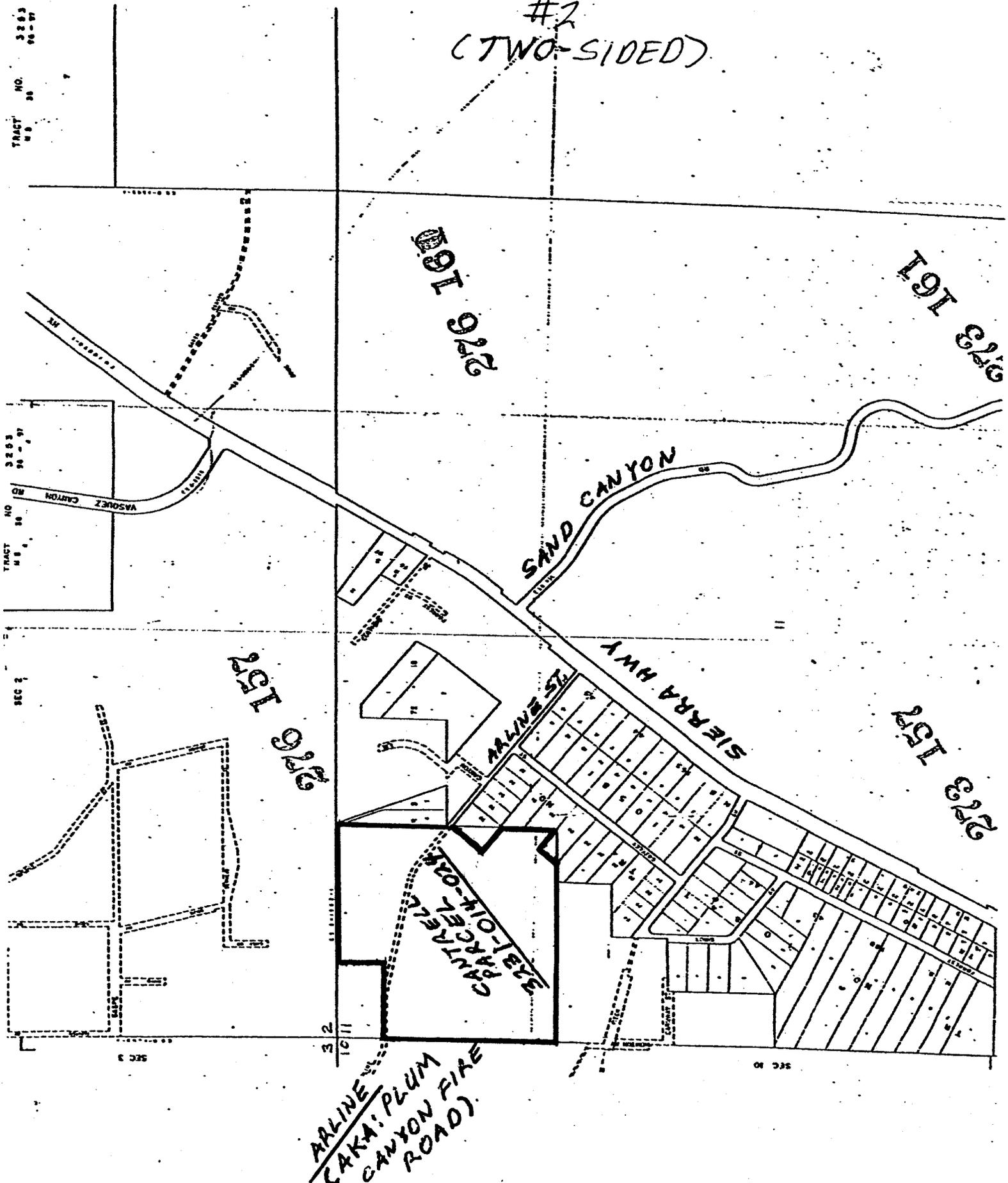
14

CANTRELL
PARCEL

SIERRA
COLLEGE
OF THE
CANYONS
CAMPUS

SAN

ATTACHMENT
#2
(TWO-SIDED)



TRACT NO. 3283
M.B. 96-97

TRACT NO. 3283
M.B. 96-97

SEC 2

SEC 3

10 11

SEC 10

AALINE ST
AKA: PLUM
CANYON FIRE
ROAD

3231-014-024

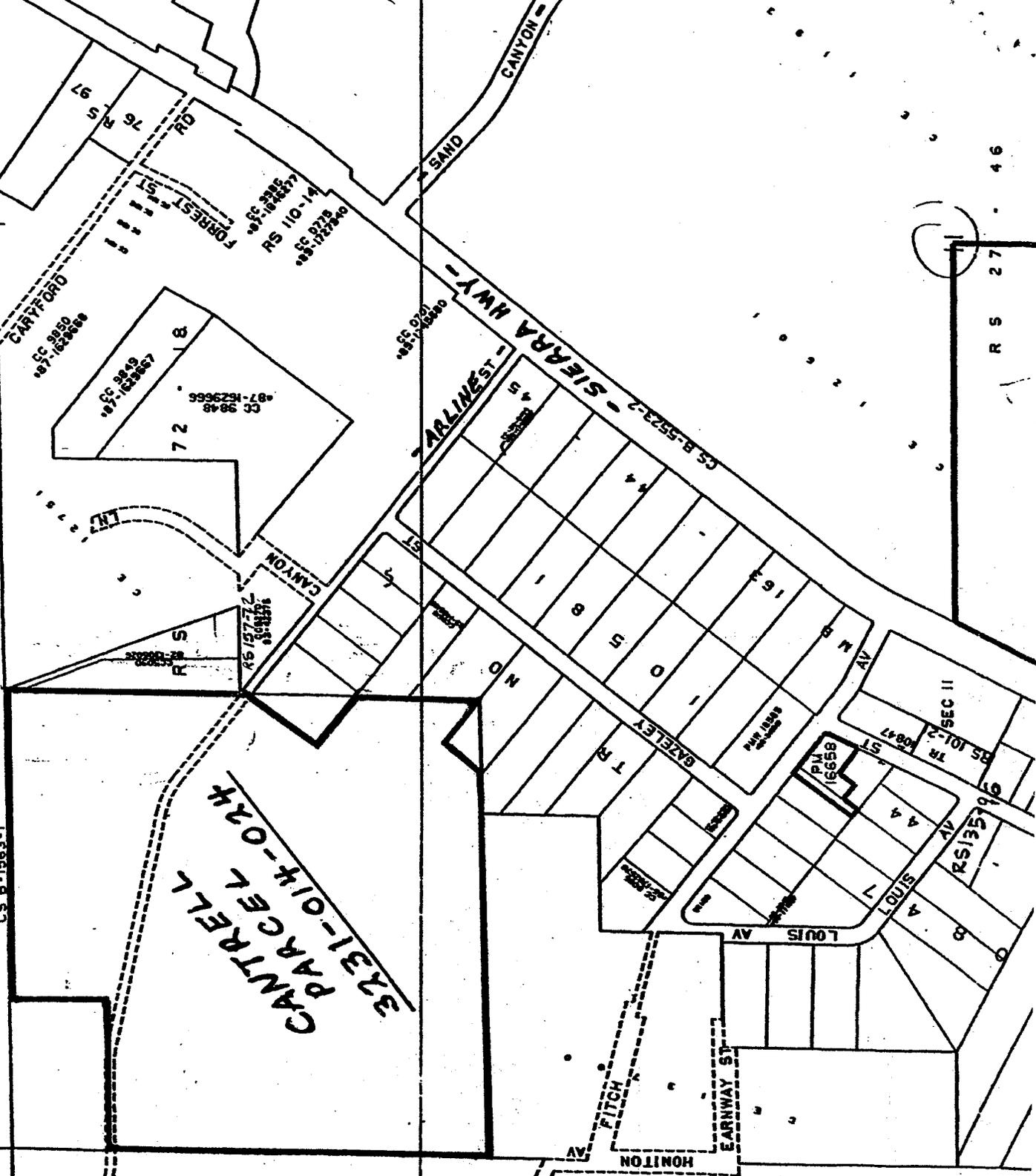
19T 926

19T 926

19T 926

19T 926

RS 97-91-92



✓ p550

CS B-1563-1

**CANTRELL
PARCEL 1
3731-014-04X**

**FRANKLIN
PROJECT
ARLINE
(AKA:
PLUM
CANYON
FIRE ROAD)**

276

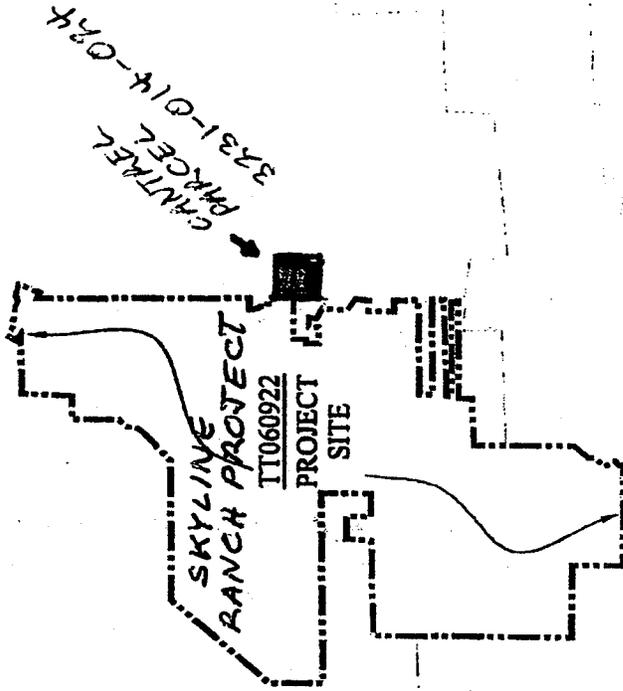
CE 10237

SEC 10

RS 27 46

ATTACHMENT

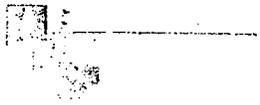
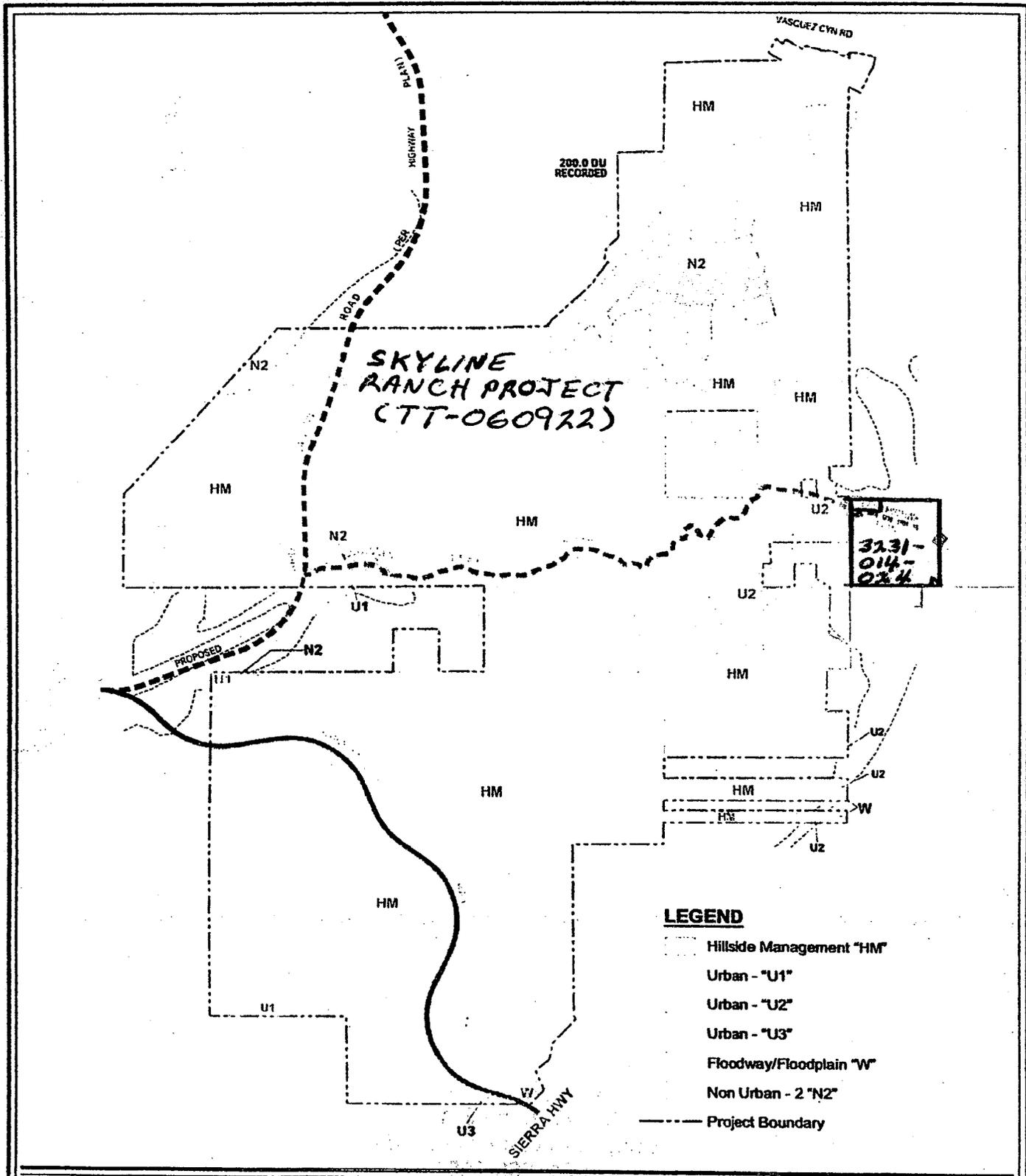
#3
(TWO-SIDED)



Not to Scale

Source: Siland, 2004

Figure 2
Vicinity Map



Not to scale

Source: Sikand, 2004

Figure 3
Existing General Plan Designation

PRELIMINARY WORKING DRAFT-Work-In-Progress

Craig L. Cantrell
29843 Arline Street
Canyon Country, CA 91351
(661) 299-9081

OCT 14 2009

October 12, 2009

Mr. Mitch Glaser
Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

**RE: 1) LAND USE AND ZONING CHANGE FOR PARCELS 3231-016-015 AND 3231-016-018 (29843 ARLINE STREET, CANYON COUNTRY, CA 91351)
2) GENERAL PLAN, HIGHWAY PLAN, O.V.O.V. AND SKYLINE RANCH (D.E.I.R.) REGARDING CRUZAN MESA ROAD WITH PUBLIC SEWER AND WATER SYSTEMS**

Dear Mr. Glaser:

As a 10 year resident of Canyon Country and family property owners for 75 years, I applaud you for making a grand effort to plan for the future. I want to go on record that, I am in full support of the Zoning and Land Use changes from U2/A-1-10000 to H18/H2 being proposed for my personal residence within the Forest Park 1929 Troutman Tract in Canyon Country, if the property tax rate is not increased and it does not restrict me from splitting my lot into 2 or 3 lots with a street frontage of over 50 feet through the process of a minor subdivision in the future. Any property tax rate change for the new designation is unknown at this time.

Parcel 3231-016-015 and 3231-016-018 make up a single lot just under 1 acre in size and is currently my personal residence at 29843 Arline Street in Canyon Country. The lot is rectangular in shape, 225 feet deep with 185 feet of street frontage on a paved county maintained street (property parcel map attached for your reference). There is a fire hydrant on the property connected to Santa Clarita/Castaic Water through the small Property Owner's Water System (P.O.W.S.).

In addition, I support the improvement of Arline Street to Cruzan Mesa Road if it includes public: water system, sewer system, underground utilities and proper above/underground drainage with curbs. Improvement of this road was on the county plan for many years (notices were sent out in the 1970's or 1980's), yet there is current inconsistencies between the old/new General Plan, old/new Highway Plan, Skyline Ranch Project and its Draft Environmental Impact Report (D.E.I.R.) and One Valley One Vision (O.V.O.V.) regarding Cruzan Mesa Road (which is Arline Street and Plum Canyon Fire Road through to Whites/Plum Canyon).

A county representative pointed this out at the County of Los Angeles Regional Planning Commission Public Hearing on September 16, 2009, but the issue was not

addressed and appeared to be moved forward to the December 16, 2009 meeting (see AGENDA: PART IV - PUBLIC HEARINGS, Land Divisions, 9. Project No. 04-075-(5), Highway Realignment and Environmental Assessment No. 200900001, items d. and e.). Also see note on the County of Los Angeles Department of Regional Planning - Skyline Ranch Project (D.E.I.R.) on the top of Page 4.Q-8, Figure 4.Q-1, entitled: Existing Land Use Designations (attached for your reference).

I for one would seriously consider giving a road easement for the improvement of Arline Street, if it included a free conversion from P.O.W.S. to Santa Clarita/Castaic Water and a free hookup to a public sewer system, thus eliminating the current septic tanks in the area that are always an issue for the underground water table. P.O.W.S. is already connected to Santa Clarita/Castaic Water for use if/when our well is contaminated or dry and they already provide fire hydrant water for P.O.W.S. in case of emergency.

With that said, I have the following questions:

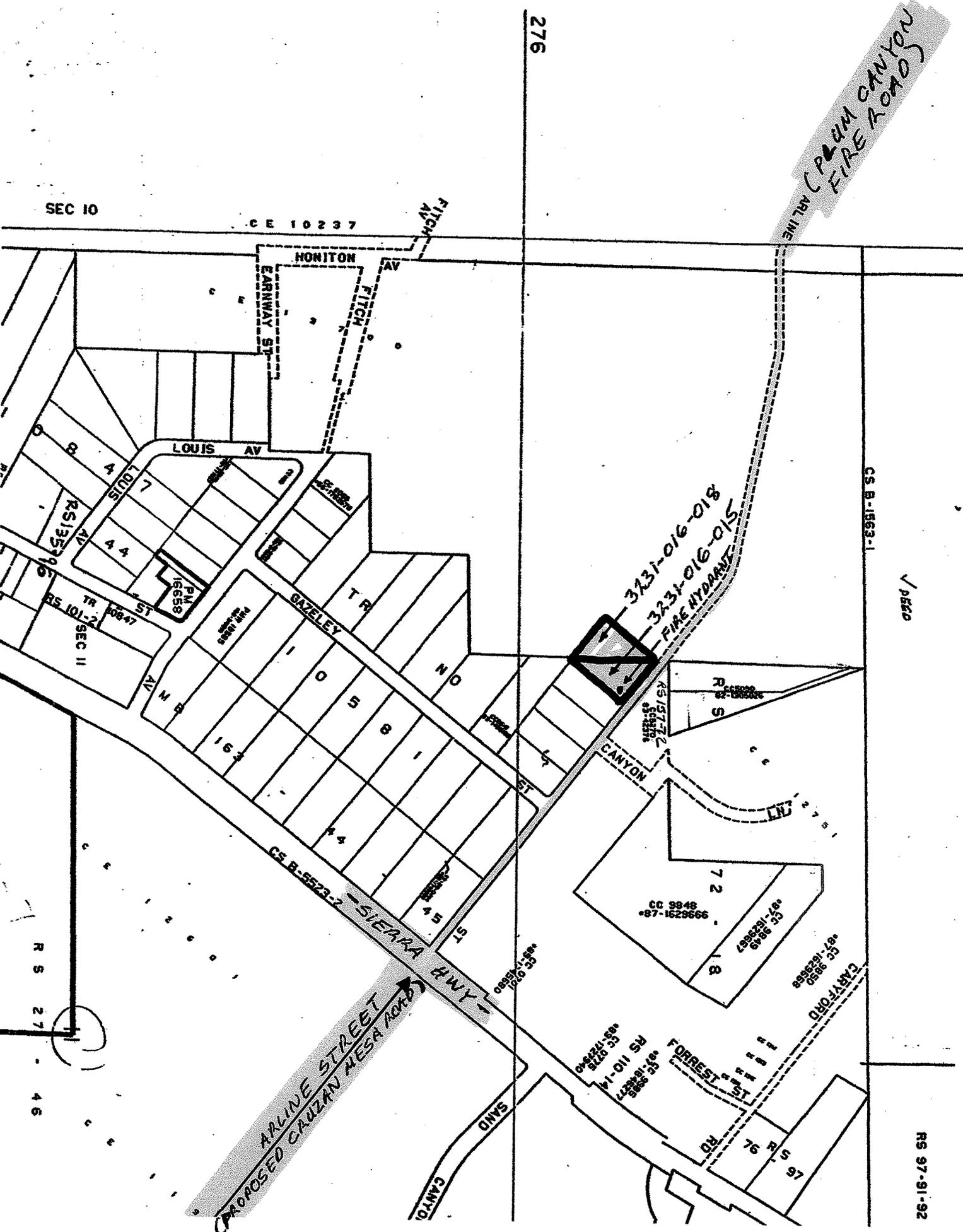
- 1) Is there a tax rate change on the property with the proposed Land Use and Zoning? If so, what is it?
- 2) Will the proposed Land Use and Zoning change restrict my ability to split my lot into 2 or 3 lots with over 50 feet of street frontage through the process of a minor subdivision in the future?
- 3) What is the status of improving Alrine Street and Plum Canyon Fire Road to Cruzan Mesa Road? Why is it not included in the Draft General Plan and Draft Highway Plan?

Thank you for the opportunity to provide input as the county, city, residents and developers work together to make this valley better for all.

Sincerely,



Craig L. Cantrell



SEC 10

CE 10237

276

ARL INC
PACIFIC CANYON
FIRE ROAD

3131-016-018
3231-016-015
FIRE HYDRANT

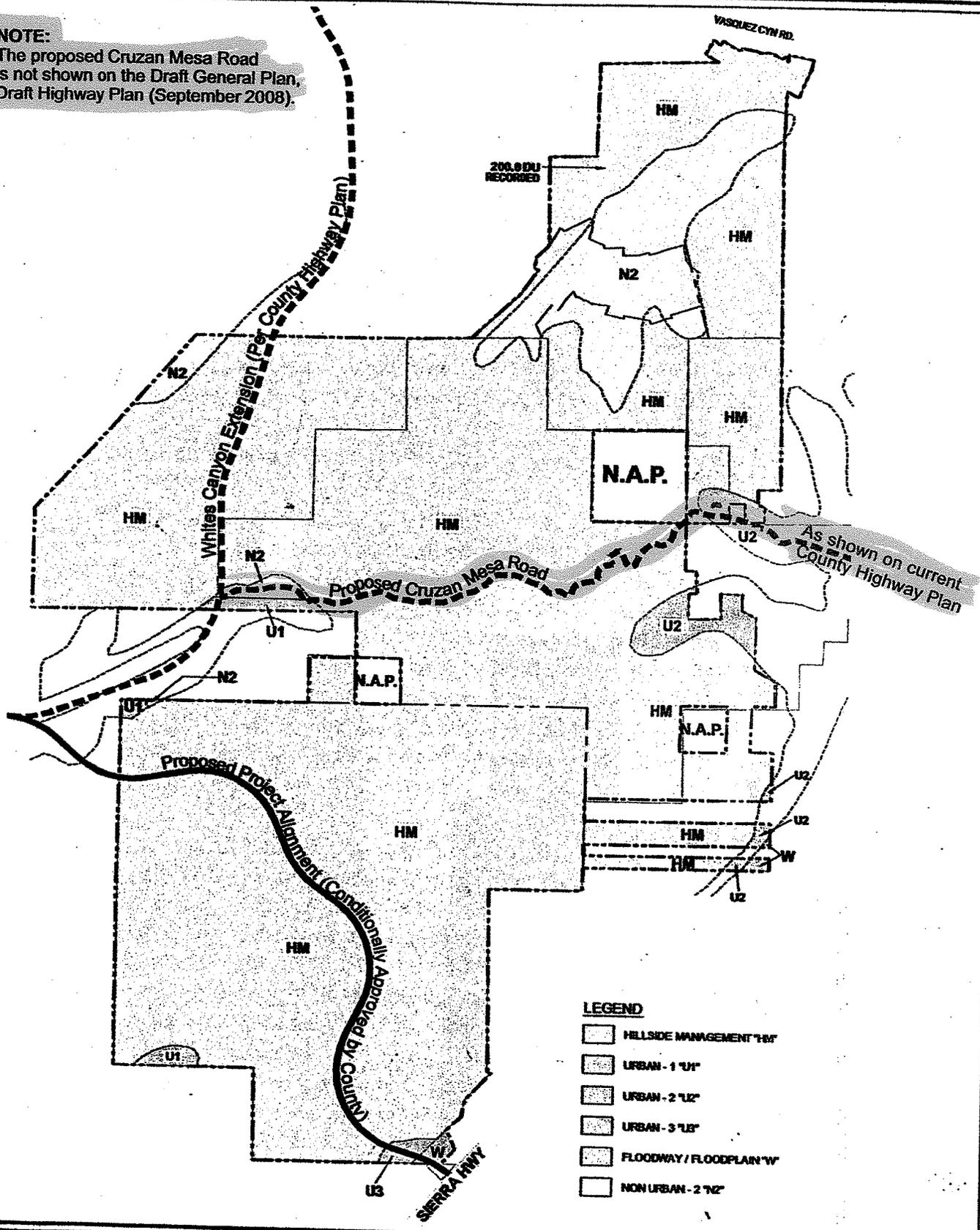
CS B-1663-1

1/2 AC

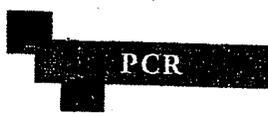
RS 27
46

RS 97-91-92

NOTE:
 The proposed Cruzan Mesa Road is not shown on the Draft General Plan, Draft Highway Plan (September 2008).



- LEGEND**
- HILLSIDE MANAGEMENT "HM"
 - URBAN - 1 "U1"
 - URBAN - 2 "U2"
 - URBAN - 3 "U3"
 - FLOODWAY / FLOODPLAIN "W"
 - NON URBAN - 2 "N2"



↑
 Not to scale

Figure 4.Q-1
 Existing Land Use Designations

Source: Siskind Engineering, 2004; PCR, 2009.

To: Los Angeles County

Dept. of Regional Planning

320 West Temple Street Room 354

Los Angeles CA, 90012

Attn: Mitch Glaser

Regarding: PROJECT NO. R2007-01226-(5)

PLAN AMENDMENT CASE NO. 200900006-(5)

ZONE CHANGE CASE NO. 200900009-(5)

ENVIRONMENTAL ASSESSMENT CASE NO. 200900080-(5)

STATE CLEARINGHOUSE NO. 2008071119

I am emailing / writing to stop any zone change on parcels {3210013041 / 3210007018 / 3210013038 / 3212009077 / 3210007017 / 3210007024} which would dramatically change the value (for sale), land use (ability to sub-divide and run a business on zone M-2, RR-1.) These parcels are zoned for the right location, topography and growth for the area. Please take my parcels off zone change case no. 200900009-(5), if said parcels zoning is changed I would pursue legal actions.

Terance Chapman

#5
10/5/09

REGIONAL PLANNING COMMISSION

RECEIVED
OCT 05 2009

Ralph Grunauer
1123 Maybrook Dr.
Beverly Hills, CA 90210
(310) 276-5977

October 5, 2009

RE ZONING CHANGES

My name is Ralph Grunauer and I am the owner of approximately 37 1/2 acres in Section #35 in the vicinity of Vasquez Canyon Road and Burton Way. This land consists of two adjoining and contiguous parcels, #2813 - 017 - 003, 20 acres, and 2813 - 017 - 002, 17 1/2 acres. We have access to both parcels by paved road from Vasquez Canyon through Burton Way to Sunrise Hill Road which ends at a cul-de-sac adjoining my property.

Parcel # 003, the 20 acre parcel, is to be changed to:
HM to RL2/ A-1-1 to A-1-2
N2 to RL2/ A-1-1 to A-1-2
New proposed zoning is to be 1 unit per 2 acres.

Parcel # 002, the 17 1/2 acre parcel, is to be changed to:
HM to RL 10/ A-1-1 to A-1-2
N2 to RL 10/ A-1-1 to A-1-2
New proposed zoning on this parcel is to be 1 unit per 10 acres.

The 17 1/2 acre parcel, #002, is the northernmost end of the property, in a small self contained valley with flat land and gentle, sloping ridges with areas of good topography that vary only a few feet. This would require minimal grading to achieve [redacted] desirable home sites.

The costs would become prohibitive to develop only one unit on the entire 17 1/2 acres. I would like you to reconsider and allow [redacted] units so that this parcel can be developed to its full potential. *The Same as Parcel #003*

Thank you.

Ralph B. Grunauer

My name is Virginia Wolf and I am a property owner at 30730 Sloan Canyon Rd. in Castaic

OF 10-ACRES

RECEIVED
OCT 05 2009

I am against the changes that are proposed for my neighborhood.

REGIONAL PLANNING COMMISSION

The existing land use and Castaic CSD have designated my neighborhood, and all of Hasley Canyon, as Rural, without commercial uses such as are listed in the new RL2 designation.

I am opposed to having RL2 being "Supportive of Commercial Uses, such as ~~Grocery Stores, Restaurants, Personal Services and Retail Sales~~".

Commercial Uses, Grocery Stores, Restaurants, Personal Service and Retail Stores DO NOT belong in a rural residential neighborhood. Please do not support this change.

I bought this property to live in a rural neighborhood away from traffic + strip malls
Thank you. I AM IN FAVOR OF DOWNGRADING SLOAN CANYON ROAD to a smaller street. A 29

February 17, 2009

Michael D. Antonovich
Los Angeles County Supervisor, Fifth District
500 West Temple Street Room 869
Los Angeles, CA. 90012

RECEIVED
OCT 05 2009

REGIONAL PLANNING COMMISSION

Subject: Santa Clarita Valley Area Plan Update--One Valley One Vision

Dear Supervisor Antonovich,

I recently read the "Land Use Element" of the December, 2008 draft of the subject plan and I'm appalled at two of the planning premises expressed in the plan; rezoning of existing land and the concept of "Valley of Villages".

As currently proposed, the plan will result in the rezoning of 67,257 acres in the unincorporated area of Los Angeles County-all within the Fifth District- and 4,005 acres within the city limits of the City of Santa Clarita. The plan is to downscale the use of the land to create rural and open space around the City of Santa Clarita at the expense of the County. This will have a deleterious impact on land values and subsequent tax revenue for the County. The plan also eliminates the concept of clustering in its entirety. All 67,257 acres would be downscaled to non-urban use. As an example of the devaluation of land values, I own 12 acres in Tapia Canyon that is held in three parcels of 4 acres each. The current zoning is one dwelling per 2 acres and, as such, I could build six dwelling. The rezoning will be one dwelling per 5 acres and I could only build two dwellings. Although there are many factors that affect land values, this change in zoning could reduce the apparent land value to 1/3 of its current value.

The courts have ruled that the devaluation of land value by rezoning is subject to Amendment V of the US Constitution and therefore just compensation is in order. I can only imagine the havoc that will have on the County budget!.

Why is this happening? I suspect that the City of Santa Clarita is following a national trend to eliminate suburbia in America. In 2008, an hour documentary called Urban Sprawl was aired on PBS. The documentary used Boulder, Colorado as a model for the creation of non-residential open space around the city. Boulder passed a 1% sales tax to accumulate funds to buy adjacent lands. Then they devaluated the adjacent lands to their lowest value by downscaling the zoning. Therefore, they could get as much land as possible for their dollar. The City of Santa Clarita has passed a \$25 per parcel tax (I believe) on each parcel within the City limits to accumulate funds to buy adjacent lands. Since they lack enough land within the City limits to accomplish their goals, they plan to buy County land for 10 cents on the dollar after it has been devalued by rezoning. If true, this is the most despicable act of deceit imaginable.

My concern with the concept of a Valley of Villages is the underlying motive. Through

out the plan is the message that suburbia equates to urban sprawl and that is very bad. This is what is being taught in our Universities today. The "Planners" would like us to give up our cars, move back into villages and live in a high-density jungle that was the lifestyle of the 1920's. They seem to forget the cesspool of disease and filth that was prevalent in New York City during the late 1800's. Every night teams of workers hauled out tons of horse manure from the streets and dumped it on the out skirts of the downtown area. By 1900, they had run out of dumping space that could be reached by horse drawn wagons. It was the development of the automobile and its mobility that saved New York City from itself. The automobile also allowed us to migrate to the suburbs and enjoy a quality of life heretofore unknown to Middle America. Some argue that the evolution of the automobile ranks as one of the 20th century greatest health benefit solutions of humankind. Moving people out of high-density urban centers has greatly reduced the pandemic spread of disease. Section J, Planning for Public Health and the Environmental Quality quotes from the book "Urban Sprawl and Public Health"- by Howard Frumkin, Lawrence Frank, and Richard Jackson. The quote is a classic example of doubletalk and is worth reading just for the humor of the contradicting statements.

In conclusion, I suggest that the Castaic corridor and areas west of I-5 be removed from the Santa Clarita Area Plan Update. We have learned to live with what we have and the proposed changes are not in our best interest. Why try to fix things that are not broke!.

Cordially Yours,

Karl R. Reinecker
P.O. BOX 176
Castaic, CA. 91310
661-702-8545

CC: Castaic Area Town Council

April 28, 2009

Michael D. Antonovich
Los Angeles County Supervisor, Fifth District
500 West Temple Street, Room 869
Los Angeles, CA. 90012

Subject: Santa Clarita Valley Area Plan Update--One
Valley One Vision: Second Response

Dear Supervisor Antonovich,

I have received and reviewed Mr. Glaser's letter in response to my letter to you of February 17, 2009, same subject, regarding the planned update to the Los Angeles County Master Plan.

Mr. Glaser's letter only addresses the change in zoning to my 12 acres. Notwithstanding issues of hillside management, land division and conditional use permitting, the fact remains that I will only be allowed to build a total of three dwelling on my 12 acres if the zoning is changed as proposed. I doubt that a future Regional Planning Commission will honor Mr. Glaser's letter for the following reason;

When I purchased the first 8 acres in 1967, it came in three parcels; a 5 acre, a 2 acre and a 1 acre. In 1970 we added a contiguous 4 acre parcel for the total of 12 acres. In the late 1970's we decided to build and in conjunction with, and at the recommendation of the County, we paid the fees and redid the boundary lines to create 3 four acre parcels. The logic, suggested by the County, was to create 4 acre parcels since the zoning was one dwelling per 2 acres and I could build 2 dwellings per parcel. Certificates of Conformance were issued and I assumed it was cast in stone. Now I'm told that the County intends to change the zoning, without my concurrence, and reduce the value of my land. If so I expect just compensation.

A second concern I have is notification to the property owners. The proposed changes to the zoning of 67,257 acres, from existing use to non-urban use, will have a major impact on the value of the land. Have the owners been notified accordingly? If not, why not? I'm certain Mr. Glazer's staff has met the minimum legal requirements of public hearings, etc., but this is so big the County has a moral and ethical responsibility to advise the owners that their land values are going to be stolen by the County. With public distrust of Government at an all time high, I don't think it is in the County's best interest to "add fuel to the fire".

A third concern I have is with SB375. When Mr. Glazer addressed the Castaic Area Town Council in March, 2009, he stated that one of the reasons for the change in zoning was an attempt to comply with SB375. As you know, SB375's intent is to limit urban sprawl, minimize dependency on automobiles for transportation and force people into inner city

housing. All because of greenhouse gas emissions, namely CO2. SB375 is the worse possible legislation imaginable because it is based upon false science and if not repealed will devastate the California economy.

The concept of sustainability evolved from Paul Ehrlich's 1968 book "The Population Boom". His predictions have been blatantly wrong in so many cases that his credibility is less than zero. The world did not experience famines in the 1970's, 200,000 people did not die of smog in New York and Los Angeles in 1973, we did not enter into an age of mineral scarcities by 1985, England still exists after 2000, etc.,etc. When Mr. Ehrlich wrote his book we were experiencing exponential population growth. World population increased from about one billion to nearly six billion in the past two centuries. However world birth rates started to decline in the industrialized nations about twenty years ago and current evidence now indicated that world population will peak around eight billion during the next fifty years and then start a significant decline (The Atlantic Monthly, August 1999, "The Population Surprise": The Futurist, September-October 2004 Vol. 38, No.5, "Trends Halting Population Growth") The world can clearly support a population of eight billion with room to spare based upon current technology. Future technology should improve sustainability.

SB375 also points to "urban sprawl" as the great sin of the 20th century. That is simply not true. An alternate viewpoint is presented in Attachment 1 entitled "Debunking Friday the 13th: 13 Myths of Urban Sprawl" by the Heartland Institute. All of this is driven by the false science that global warming is caused by increases in CO2 in the atmosphere.

A few years ago the Oregon Institute of Science and Medicine completed a study of all the documentation related to global warming. Their conclusion clearly indicated that it was not caused by CO2 in the atmosphere but by natural causes. Climate change has been a part of planet earth's profile since time immemorial. The study gave rise to a petition in opposition to the popular concept that mankind was the cause of global warming. Only scientists having a BS, MS or PhD degree in science, engineering, or related disciplines can sign the petition. To date over thirty one thousand scientists have signed the petition. Of these, over nine thousand are PhD's. This report must not be ignored You will not find mention of it in the main stream media because it undermines the fundamental platform of the extreme environmentalists who are trying to destroy the industrialization of America. A copy of the summary of the report is provided as Attachment 2. The full report can be viewed on their website www.oism.org/pproject.

My fourth concern at this time is that the Update is designed to limit growth in Los Angeles County. We all know that California is in dire financial disarray. Selling bonds to pay for excess spending will ultimately result in massive tax increases or the equivalent of a state bankruptcy. Whatever the outcome at the State level, the problem will be passed down to the Counties. In the past, growth offset increases in the cost of government. People moved to California because of job opportunities and the weather. With businesses leaving California at alarming rates we may only have the weather to rely on. To artificially restrict growth will only compound future problems. Realistically, the

future of Los Angeles County lies in District 5. With wide open space and a low population density, future growth is only viable in District 5. Districts 1-4 are already reaching a saturation level that will automatically limit growth. With future growth some have even proposed that District 5 could become its own County.

In summary, do not let District 5 become trapped into a limited growth situation because of ill conceived legislation from Sacramento. If you must show compliance with SB375, find an alternate way without limiting growth. For example, bus service can reduce the use of personal automobiles. Bus service is flexible, low cost and can be changed as circumstances warrant.

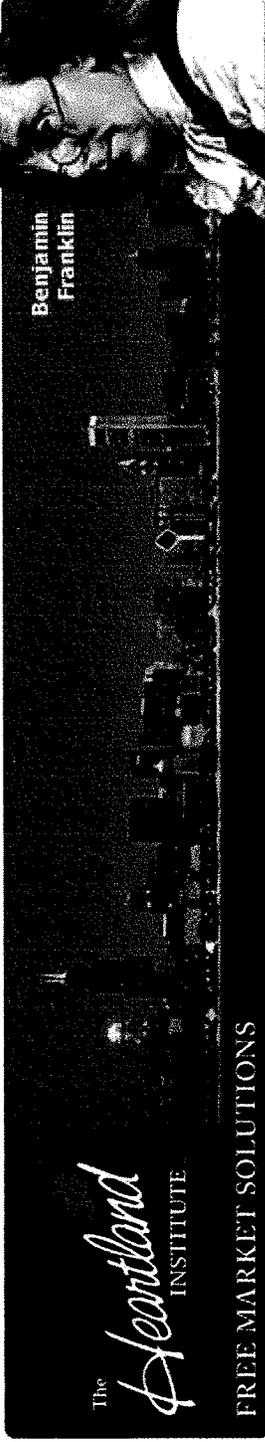
Thank you for your consideration.

Respectfully yours,

Karl R. Reinecker
256543 Tapia Canyon Road
Castaic, CA. 91384
661-702-8545

CC: Castaic Area Town Council -w/o attachments
Atten; Mr. Teeman, President.

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Debunking Friday the 13th: 13 Myths of Urban Sprawl - by Wendell Cox - News Releases

Debunking Friday the 13th: 13 Myths of Urban Sprawl

News Releases > 2003
Environment > Sprawl [See also Government]
Email a Friend

Written By: Wendell Cox
Published In: News Releases > 2003
Publication date: 06/12/2003
Publisher: The Heartland Institute

Simply described as the geographical spreading out of urban areas, "urban sprawl" has become the stuff of public policy hysteria. A well-financed movement blames sprawl for everything from a lack of community spirit to obesity.

The movement has labeled itself "smart growth," but more descriptive--and more accurate--would be "anti-opportunity." It would force housing prices up, depriving millions of households, disproportionately minority, of home ownership. It would increase commuter travel times and reduce the number

of jobs accessible, to the disproportionate harm of lower-income households, especially minorities.

The "smart growth" movement is a serious threat to the American Dream of home ownership, employment, and prosperity. Far more dangerous than black cats, ladders, and Friday the 13th, it jeopardizes the lives of millions of Americans. The 13 myths debunked below explain why.



Myth #1: Smart Growth Does Not Reduce Housing Affordability.

Rationing raises prices. Smart growth measures ration land by forcing higher densities through urban growth boundaries, excessive impact fees, down-zoning and other restrictions on development. This drives prices higher, making housing less affordable.



Myth #2: Higher Densities Mean Less Traffic Congestion. National and international evidence clearly shows higher densities increase traffic congestion. Per-capita travel by automobile may decline a bit as densities rise, but not enough to keep traffic from getting a lot worse. Adding more of anything to a constricted space--putting more people into smaller urban areas--increases crowding.



Myth #3. Lower Densities Mean Higher Costs of Government. The smart-growth folks say we can "no longer afford" our low-density life style, claiming higher taxes and fees are caused by lower densities. But the data show lower-density cities have *lower* expenditure levels than higher- density cities. Moreover, cities with newer housing stock (second- and third-ring suburbs) have *lower* public expenditures than central cities and first-ring suburbs.

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Myth #4: Higher Densities Mean Less Air Pollution. EPA research concludes air pollution emissions are higher where traffic speeds are slower, and emissions are higher where there is more stop-and-go traffic. Higher densities mean more traffic congestion, which in turn means slower traffic speeds and more stop-and-go travel. More tail pipes do not emit less pollution.

Myth #5: Central Cities Are the Victims of Suburban Growth.

America's central cities have lost population, while suburbs have gained. It does not, however, follow that city losses occurred because of suburban growth.

Over the past half-century, America has become increasingly urban, as rural residents have moved to urban areas, where they have accounted for much of suburban growth. And cities have driven away many who would have stayed. "Cities" are hardly the victims here. City residents are: residents who felt they had no choice but to leave, and even more so those who have no choice but to stay, captive to governments qualifying as third world by their performance.

Myth #6: Rail Transit Reduces Traffic Congestion.

There is no evidence--none--that new rail transit has materially reduced traffic congestion in any urban area. Building rail is justified principally by an irresistible urge to spend taxpayers' money. The higher the cost, railvangelists claim, the greater the benefit. Of course, the historic rail systems serving the pre-automobile cores of New York, Chicago, Paris, London, Tokyo, or Hong Kong are essential. But Sioux City, Iowa is not Hong Kong. Neither, for that matter, is Portland.

Myth #7: Rail Transit Is Needed for "Transportation Choice."

From Cincinnati to Austin, transit spending advocates quickly abandon their baseless traffic congestion claims when challenged. They shift to what they call "transportation choice"--the idea that building rail transit provides choices for people. But choices for whom? At most, rail transit serves the small percentage of people who work downtown--the only destination to which transit provides what can be considered automobile-competitive service. To provide genuine transit choice for all would require annual expenditures that rival the gross income of any urban area.

Myth #8: We Can't Built Our Way Out of Congestion. This proceeds from the belief that new roadway capacity creates new traffic (the "induced traffic" effect)--suggesting a corollary that building more maternity wards would increase the birth rate. This leads to a further conclusion that, given enough road capacity, Americans will eventually spend 36 to 72 hours per day behind the wheel.

More rational minds at the Federal Highway Administration found little induced traffic effect, and even that withers away when travel time (rather than distance) is considered.

Myth #9: The Jobs-Housing Balance.

"Planners," the smart growth movement claim, should design transportation and land use so as to minimize the distance between work and home. This may be the most bankrupt, and surely the most arrogant, of the smart growth myths. Herding cats would have at least as high a probability of success.

According to Census data, barely 20 percent of households consider proximity to work as the principal reason for selecting their home neighborhood. A jobs-housing balance requires other balances as well--jobs-housing-education, jobs-housing-leisure, etc. Are "planners" really in the best position to decide?

Myth #10: Higher Densities Mean A Lower Cost of Living. Periodically, smart-growth studies emerge claiming household transportation expenditures are higher where densities are lower. But there is more to life than transportation. Housing and food expenditures are so much lower where densities are *lower*, that any transportation cost advantage for higher density areas is more than erased.

Myth #11: Europe Doesn't Sprawl. American urban planners by the thousands have made overseas pilgrimages, frequenting sidewalk cafes across the street from the Louvre in Paris, wondering why Phoenix or Boston looks so different. What they fail to realize is that not even Paris is like Paris.

The few square miles of central Paris in which the myopic rail-bound pilgrims sit is in the middle of 1,000 square miles of urban sprawl. The situation is similar throughout Western Europe, where virtually all growth in urban areas has been suburban growth, and where virtually all major cities have experienced population losses. Urban population densities have fallen faster in Europe and Canada than in the United States.

Myth #12: Urbanization is Consuming Agricultural Land.

Until the Clinton Agriculture Department set them straight, this was one of the principal tenets of the smart-growth movement. In fact, some 400 years after Jamestown, as The Heritage Foundation's Ron Utt always reminds us, only 3 percent of the nation is urbanized: 97 percent of it is rural.

There is less agricultural land in the United States than there used to be, but not because it has been consumed by urbanization. Agriculture has become more productive. Since 1950, agricultural production has doubled, and more farmland than the area of Texas and Oklahoma combined has been returned to emptiness: open space.

Myth #13: Things are Going Our Way.

Anti-sprawl types often project their personal experiences into universal truths.

Transit ridership increases on a minuscule base are reported as if they represented a major switch in travel behavior; going from 10 riders to 20 represents a touted "100 percent increase." Friends move into chic new urban developments, leading some to claim people "are forsaking suburbs" for the city.

Someone should teach these people to use simple reference books, like *The World Almanac*, which can be easily obtained at the nearest big box store.

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Environmental Effects of Increased Atmospheric Carbon Dioxide

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ABSTRACT A review of the research literature concerning the environmental consequences of increased levels of atmospheric carbon dioxide leads to the conclusion that increases during the 20th and early 21st centuries have produced no deleterious effects upon Earth's weather and climate. Increased carbon dioxide has, however, markedly increased plant growth. Predictions of harmful climatic effects due to future increases in hydrocarbon use and minor greenhouse gases like CO₂ do not conform to current experimental knowledge. The environmental effects of rapid expansion of the nuclear and hydrocarbon energy industries are discussed.

SUMMARY

Political leaders gathered in Kyoto, Japan, in December 1997 to consider a world treaty restricting human production of "greenhouse gases," chiefly carbon dioxide (CO₂). They feared that CO₂ would result in "human-caused global warming" – hypothetical severe increases in Earth's temperatures, with disastrous environmental consequences. During the past 10 years, many political efforts have been made to force worldwide agreement to the Kyoto treaty.

When we reviewed this subject in 1998 (1,2), existing satellite records were short and were centered on a period of changing intermediate temperature trends. Additional experimental data have now been obtained, so better answers to the questions raised by the hypothesis of "human-caused global warming" are now available.

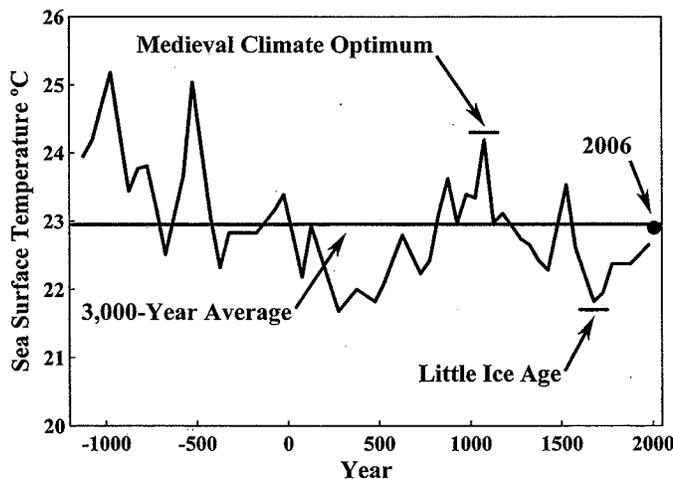


Figure 1: Surface temperatures in the Sargasso Sea, a 2 million square mile region of the Atlantic Ocean, with time resolution of 50 to 100 years and ending in 1975, as determined by isotope ratios of marine organism remains in sediment at the bottom of the sea (3). The horizontal line is the average temperature for this 3,000-year period. The Little Ice Age and Medieval Climate Optimum were naturally occurring, extended intervals of climate departures from the mean. A value of 0.25 °C, which is the change in Sargasso Sea temperature between 1975 and 2006, has been added to the 1975 data in order to provide a 2006 temperature value.

The average temperature of the Earth has varied within a range of about 3°C during the past 3,000 years. It is currently increasing as the Earth recovers from a period that is known as the Little Ice Age, as shown in Figure 1. George Washington and his army were at Valley Forge during the coldest era in 1,500 years, but even then the temperature was only about 1° Centigrade below the 3,000-year average.

The most recent part of this warming period is reflected by short-

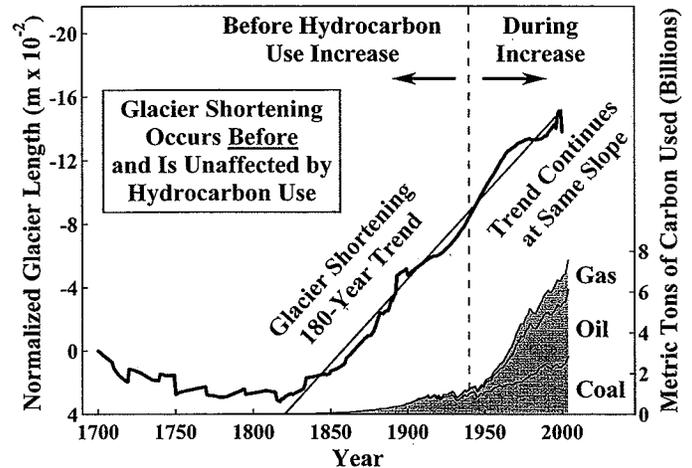


Figure 2: Average length of 169 glaciers from 1700 to 2000 (4). The principal source of melt energy is solar radiation. Variations in glacier mass and length are primarily due to temperature and precipitation (5,6). This melting trend lags the temperature increase by about 20 years, so it predates the 6-fold increase in hydrocarbon use (7) even more than shown in the figure. Hydrocarbon use could not have caused this shortening trend.

ening of world glaciers, as shown in Figure 2. Glaciers regularly lengthen and shorten in delayed correlation with cooling and warming trends. Shortening lags temperature by about 20 years, so the current warming trend began in about 1800.

Atmospheric temperature is regulated by the sun, which fluctuates in activity as shown in Figure 3; by the greenhouse effect, largely caused by atmospheric water vapor (H₂O); and by other phenomena that are more poorly understood. While major greenhouse gas H₂O substantially warms the Earth, minor greenhouse gases such as CO₂

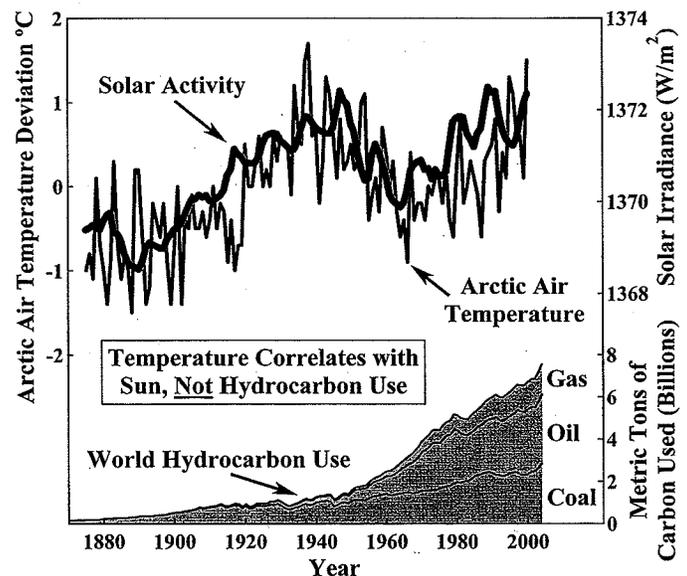


Figure 3: Arctic surface air temperature compared with total solar irradiance as measured by sunspot cycle amplitude, sunspot cycle length, solar equatorial rotation rate, fraction of penumbral spots, and decay rate of the 11-year sunspot cycle (8,9). Solar irradiance correlates well with Arctic temperature, while hydrocarbon use (7) does not correlate.

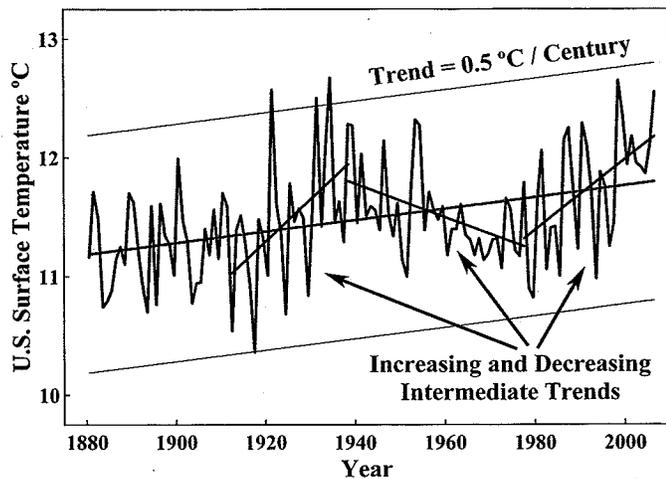


Figure 4: Annual mean surface temperatures in the contiguous United States between 1880 and 2006 (10). The slope of the least-squares trend line for this 127-year record is 0.5 °C per century.

have little effect, as shown in Figures 2 and 3. The 6-fold increase in hydrocarbon use since 1940 has had no noticeable effect on atmospheric temperature or on the trend in glacier length.

While Figure 1 is illustrative of most geographical locations, there is great variability of temperature records with location and regional climate. Comprehensive surveys of published temperature records confirm the principal features of Figure 1, including the fact that the current Earth temperature is approximately 1 °C lower than that during the Medieval Climate Optimum 1,000 years ago (11,12).

Surface temperatures in the United States during the past century reflect this natural warming trend and its correlation with solar activity, as shown in Figures 4 and 5. Compiled U.S. surface temperatures have increased about 0.5 °C per century, which is consistent with other historical values of 0.4 to 0.5 °C per century during the recovery from the Little Ice Age (13-17). This temperature change is slight as compared with other natural variations, as shown in Figure 6. Three intermediate trends are evident, including the decreasing trend used to justify fears of “global cooling” in the 1970s.

Between 1900 and 2000, on absolute scales of solar irradiance and degrees Kelvin, solar activity increased 0.19%, while a 0.5 °C temperature change is 0.21%. This is in good agreement with estimates that Earth’s temperature would be reduced by 0.6 °C through particulate blocking of the sun by 0.2% (18).

Solar activity and U.S. surface temperature are closely correlated, as shown in Figure 5, but U.S. surface temperature and world hydrocarbon use are not correlated, as shown in Figure 13.

The U.S. temperature trend is so slight that, were the temperature

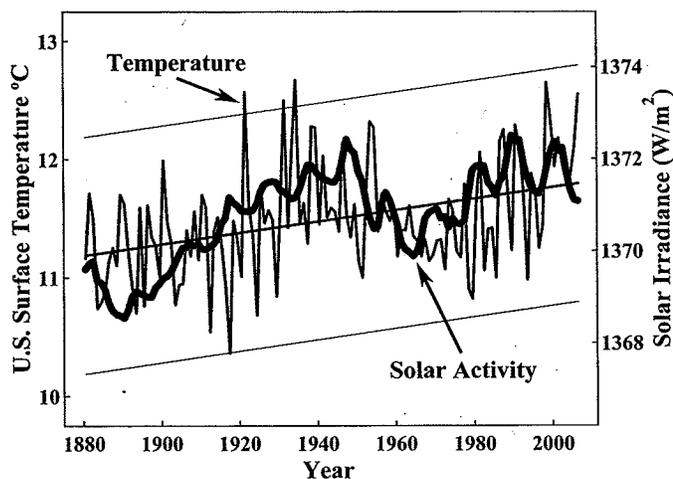


Figure 5: U.S. surface temperature from Figure 4 as compared with total solar irradiance (19) from Figure 3.

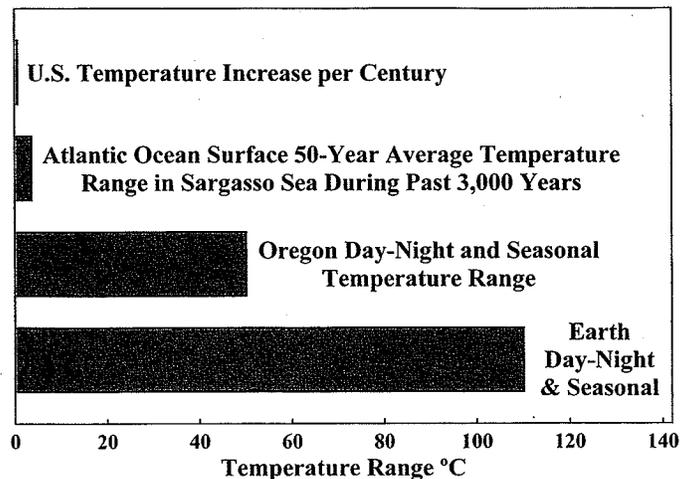


Figure 6: Comparison between the current U.S. temperature change per century, the 3,000-year temperature range in Figure 1, seasonal and diurnal range in Oregon, and seasonal and diurnal range throughout the Earth.

change which has taken place during the 20th and 21st centuries to occur in an ordinary room, most of the people in the room would be unaware of it.

During the current period of recovery from the Little Ice Age, the U.S. climate has improved somewhat, with more rainfall, fewer tornados, and no increase in hurricane activity, as illustrated in Figures 7 to 10. Sea level has trended upward for the past 150 years at a rate of 7 inches per century, with 3 intermediate uptrends and 2 periods of no increase as shown in Figure 11. These features are confirmed by the glacier record as shown in Figure 12. If this trend continues as

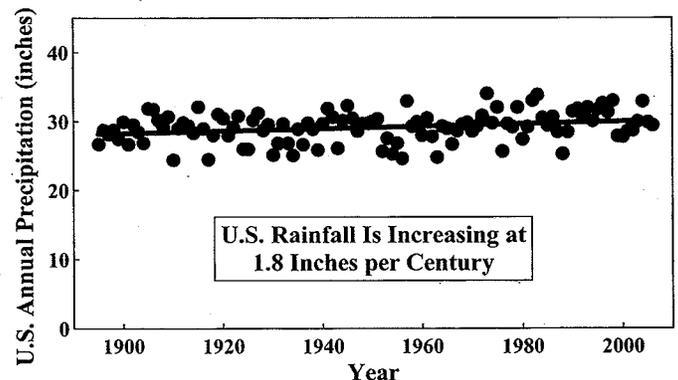


Figure 7: Annual precipitation in the contiguous 48 United States between 1895 and 2006. U.S. National Climatic Data Center, U.S. Department of Commerce 2006 Climate Review (20). The trend shows an increase in rainfall of 1.8 inches per century – approximately 6% per century.

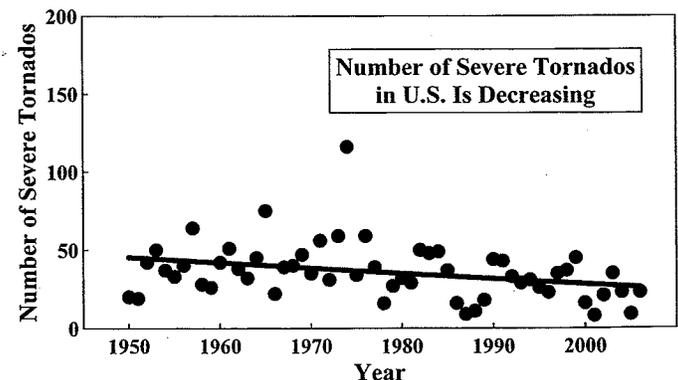


Figure 8: Annual number of strong-to-violent category F3 to F5 tornados during the March-to-August tornado season in the U.S. between 1950 and 2006. U.S. National Climatic Data Center, U.S. Department of Commerce 2006 Climate Review (20). During this period, world hydrocarbon use increased 6-fold, while violent tornado frequency decreased by 43%.

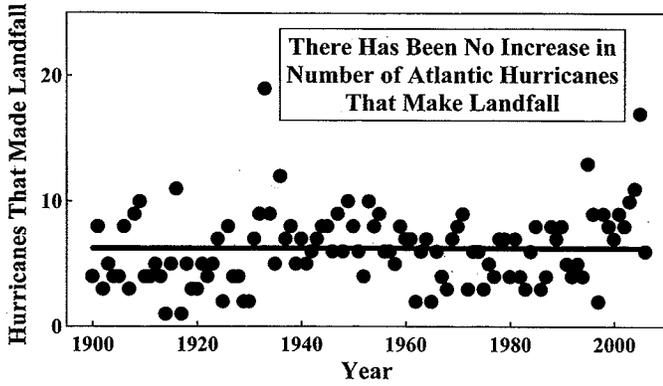


Figure 9: Annual number of Atlantic hurricanes that made landfall between 1900 and 2006 (21). Line is drawn at mean value.

did that prior to the Medieval Climate Optimum, sea level would be expected to rise about 1 foot during the next 200 years.

As shown in Figures 2, 11, and 12, the trends in glacier shortening and sea level rise began a century *before* the 60-year 6-fold increase in hydrocarbon use, and have not changed during that increase. Hydrocarbon use could not have caused these trends.

During the past 50 years, atmospheric CO₂ has increased by 22%. Much of that CO₂ increase is attributable to the 6-fold increase in human use of hydrocarbon energy. Figures 2, 3, 11, 12, and 13 show, however, that human use of hydrocarbons has not caused the observed increases in temperature.

The increase in atmospheric carbon dioxide has, however, had a substantial environmental effect. Atmospheric CO₂ fertilizes plants. Higher CO₂ enables plants to grow faster and larger and to live in drier climates. Plants provide food for animals, which are thereby also enhanced. The extent and diversity of plant and animal life have both increased substantially during the past half-century. Increased temperature has also mildly stimulated plant growth.

Does a catastrophic amplification of these trends with damaging climatological consequences lie ahead? There are no experimental data that suggest this. There is also no experimentally validated theoretical evidence of such an amplification.

Predictions of catastrophic global warming are based on computer climate modeling, a branch of science still in its infancy. The empirical evidence – actual measurements of Earth’s temperature and climate – shows no man-made warming trend. Indeed, during four of the seven decades since 1940 when average CO₂ levels steadily increased, U.S. average temperatures were actually decreasing.

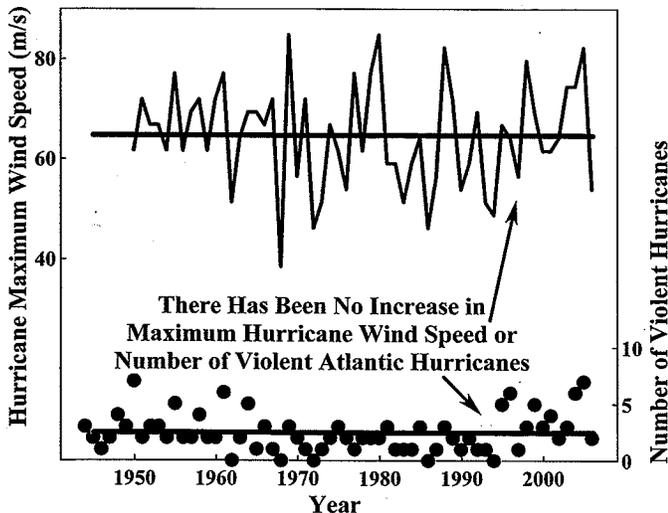


Figure 10: Annual number of violent hurricanes and maximum attained wind speed during those hurricanes in the Atlantic Ocean between 1944 and 2006 (22,23). There is no upward trend in either of these records. During this period, world hydrocarbon use increased 6-fold. Lines are mean values.

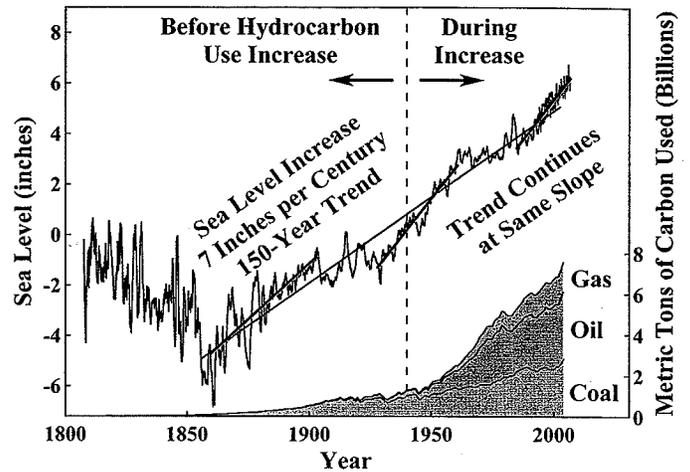


Figure 11: Global sea level measured by surface gauges between 1807 and 2002 (24) and by satellite between 1993 and 2006 (25). Satellite measurements are shown in gray and agree with tide gauge measurements. The overall trend is an increase of 7 inches per century. Intermediate trends are 9, 0, 12, 0, and 12 inches per century, respectively. This trend lags the temperature increase, so it predates the increase in hydrocarbon use even more than is shown. It is unaffected by the very large increase in hydrocarbon use.

While CO₂ levels have increased substantially and are expected to continue doing so and humans have been responsible for part of this increase, the effect on the environment has been benign.

There is, however, one very dangerous possibility.

Our industrial and technological civilization depends upon abundant, low-cost energy. This civilization has already brought unprecedented prosperity to the people of the more developed nations. Billions of people in the less developed nations are now lifting themselves from poverty by adopting this technology.

Hydrocarbons are essential sources of energy to sustain and extend prosperity. This is especially true of the developing nations, where available capital and technology are insufficient to meet rapidly increasing energy needs without extensive use of hydrocarbon fuels. If, through misunderstanding of the underlying science and through misguided public fear and hysteria, mankind significantly rations and restricts the use of hydrocarbons, the worldwide increase in prosperity will stop. The result would be vast human suffering and the loss of hundreds of millions of human lives. Moreover, the prosperity of those in the developed countries would be greatly reduced.

Mild ordinary natural increases in the Earth’s temperature have occurred during the past two to three centuries. These have resulted in some improvements in overall climate and also some changes in

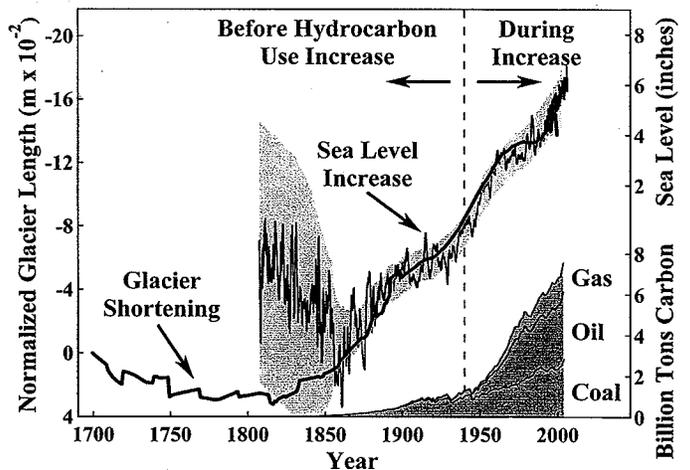


Figure 12: Glacier shortening (4) and sea level rise (24,25). Gray area designates estimated range of error in the sea level record. These measurements lag air temperature increases by about 20 years. So, the trends began more than a century before increases in hydrocarbon use.

the landscape, such as a reduction in glacier lengths and increased vegetation in colder areas. Far greater changes have occurred during the time that all current species of animals and plants have been on the Earth. The relative population sizes of the species and their geographical distributions vary as they adapt to changing conditions.

The temperature of the Earth is continuing its process of fluctuation in correlation with variations in natural phenomena. Mankind, meanwhile, is moving some of the carbon in coal, oil, and natural gas from below ground to the atmosphere and surface, where it is available for conversion into living things. We are living in an increasingly lush environment of plants and animals as a result. This is an unexpected and wonderful gift from the Industrial Revolution.

ATMOSPHERIC AND SURFACE TEMPERATURES

Atmospheric and surface temperatures have been recovering from an unusually cold period. During the time between 200 and 500 years ago, the Earth was experiencing the "Little Ice Age." It had descended into this relatively cool period from a warm interval about 1,000 years ago known as the "Medieval Climate Optimum." This is shown in Figure 1 for the Sargasso Sea.

During the Medieval Climate Optimum, temperatures were warm enough to allow the colonization of Greenland. These colonies were abandoned after the onset of colder temperatures. For the past 200 to 300 years, Earth temperatures have been gradually recovering (26). Sargasso Sea temperatures are now approximately equal to the average for the previous 3,000 years.

The historical record does not contain any report of "global warming" catastrophes, even though temperatures have been higher than they are now during much of the last three millennia.

The 3,000-year range of temperatures in the Sargasso Sea is typical of most places. Temperature records vary widely with geographical location as a result of climatological characteristics unique to those specific regions, so an "average" Earth temperature is less meaningful than individual records (27). So called "global" or "hemispheric" averages contain errors created by averaging systematically different aspects of unique geographical regions and by inclusion of regions where temperature records are unreliable.

Three key features of the temperature record – the Medieval Climate Optimum, the Little Ice Age, and the Not-Unusual-Temperature of the 20th century – have been verified by a review of local temperature and temperature-correlated records throughout the world (11), as summarized in Table 1. Each record was scored with respect to those queries to which it applied. The experimental and historical literature definitively confirms the primary features of Figure 1.

Most geographical locations experienced both the Medieval Climate Optimum and the Little Ice Age – and most locations did not

Table 1: Query	Yes	No	Yes/No	Two-Tailed Probability
Warm Climatic Anomaly 800-1300 A.D.?	38	2	7	> 99.99
Cold Climatic Anomaly 1300-1900 A.D.?	105	2	2	> 99.99
20th Century Warmest in Individual Record?	7	64	14	< 0.0001

Table 1: Comprehensive review of all instances in which temperature or temperature-correlated records from localities throughout the world permit answers to queries concerning the existence of the Medieval Climate Optimum, the Little Ice Age, and an unusually warm anomaly in the 20th century (11). The compiled and tabulated answers confirm the three principal features of the Sargasso Sea record shown in Figure 1. The probability that the answer to the query in column 1 is "yes" is given in column 5.

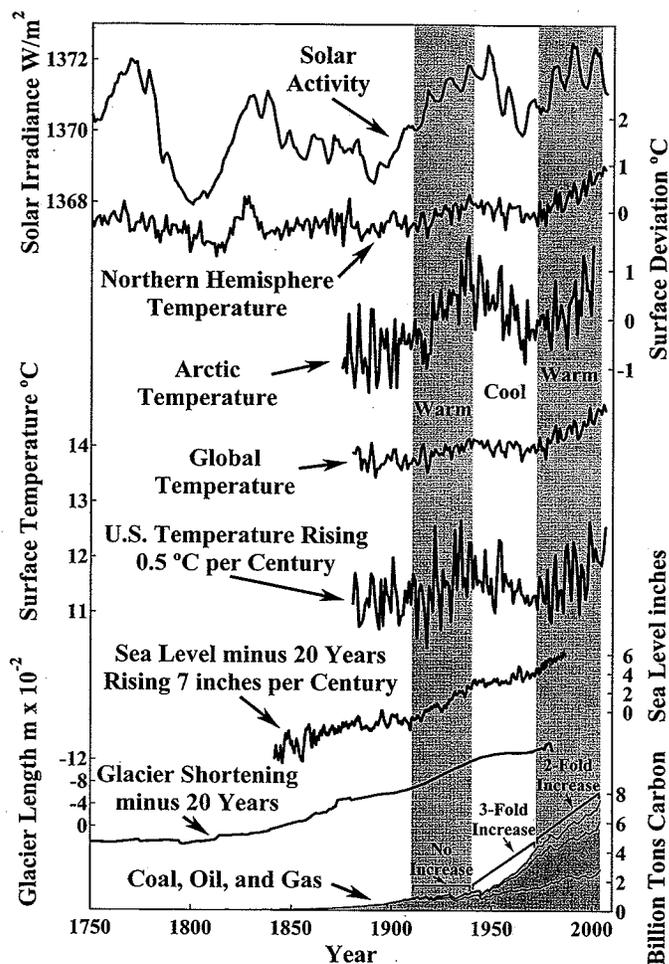


Figure 13: Seven independent records – solar activity (9); Northern Hemisphere, (13), Arctic (28), global (10), and U.S. (10) annual surface air temperatures; sea level (24,25); and glacier length (4) – all qualitatively confirm each other by exhibiting three intermediate trends – warmer, cooler, and warmer. Sea level and glacier length are shown minus 20 years, correcting for their 20-year lag of atmospheric temperature. Solar activity, Northern Hemisphere temperature, and glacier lengths show a low in about 1800.

Hydrocarbon use (7) is uncorrelated with temperature. Temperature rose for a century before significant hydrocarbon use. Temperature rose between 1910 and 1940, while hydrocarbon use was almost unchanged. Temperature then fell between 1940 and 1972, while hydrocarbon use rose by 330%. Also, the 150 to 200-year slopes of the sea level and glacier trends were unchanged by the very large increase in hydrocarbon use after 1940.

experience temperatures that were unusually warm during the 20th century. A review of 23 quantitative records has demonstrated that mean and median world temperatures in 2006 were, on average, approximately 1 °C or 2 °F cooler than in the Medieval Period (12).

World glacier length (4) and world sea level (24,25) measurements provide records of the recent cycle of recovery. Warmer temperatures diminish glaciers and cause sea level to rise because of decreased ocean water density and other factors.

These measurements show that the trend of 7 inches per century increase in sea level and the shortening trend in average glacier length both began a century before 1940, yet 84% of total human annual hydrocarbon use occurred only after 1940. Moreover, neither of these trends has accelerated during the period between 1940 and 2007, while hydrocarbon use increased 6-fold. Sea level and glacier records are offset by about 20 years because of the delay between temperature rise and glacier and sea level change.

If the natural trend in sea level increase continues for another two centuries as did the temperature rise in the Sargasso Sea as the Earth entered the Medieval Warm Period, sea level would be expected to rise about 1 foot between the years 2000 and 2200. Both the sea level and glacier trends – and the temperature trend that they reflect – are

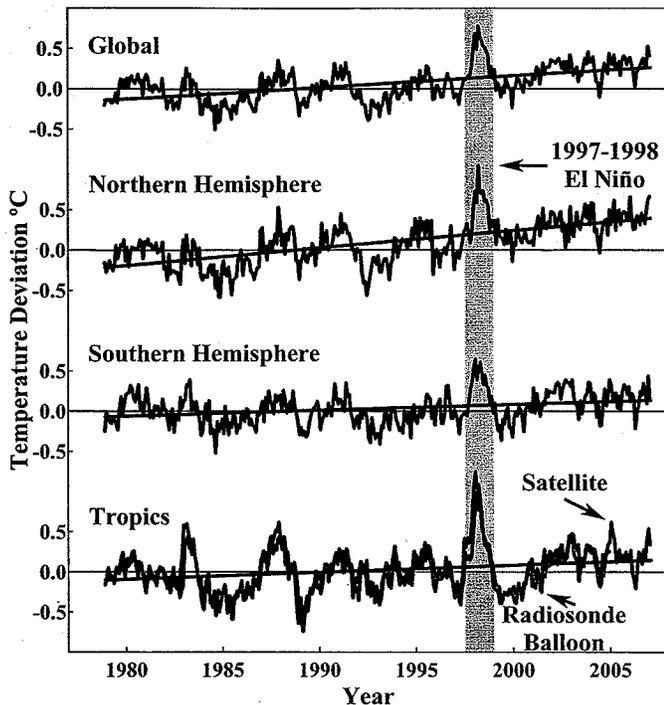


Figure 14: Satellite microwave sounding unit (blue) measurements of tropospheric temperatures in the Northern Hemisphere between 0 and 82.5 N, Southern Hemisphere between 0 and 82.5 S, tropics between 20S and 20N, and the globe between 82.5N and 82.5S between 1979 and 2007 (29), and radiosonde balloon (red) measurements in the tropics (29). The balloon measurements confirm the satellite technique (29-31). The warming anomaly in 1997-1998 (gray) was caused by El Niño, which, like the overall trends, is unrelated to CO₂ (32).

unrelated to hydrocarbon use. A further doubling of world hydrocarbon use would not change these trends.

Figure 12 shows the close correlation between the sea level and glacier records, which further validates both records and the duration and character of the temperature change that gave rise to them.

Figure 4 shows the annual temperature in the United States during the past 127 years. This record has an upward trend of 0.5 °C per century. Global and Northern Hemisphere surface temperature records shown in Figure 13 trend upward at 0.6 °C per century. These records are, however, biased toward higher temperatures in several ways. For example, they preferentially use data near populated areas (33), where heat island effects are prevalent, as illustrated in Figure 15. A trend of 0.5 °C per century is more representative (13-17).

The U.S. temperature record has two intermediate uptrends of comparable magnitude, one occurring before the 6-fold increase in hydrocarbon use and one during it. Between these two is an intermediate temperature downtrend, which led in the 1970s to fears of an impending new ice age. This decrease in temperature occurred during a period in which hydrocarbon use increased 3-fold.

Seven independent records – solar irradiance; Arctic, Northern Hemisphere, global, and U.S. annual average surface air temperatures; sea level; and glacier length – all exhibit these three intermediate trends, as shown in Figure 13. These trends confirm one another. Solar irradiance correlates with them. Hydrocarbon use does not.

The intermediate uptrend in temperature between 1980 and 2006 shown in Figure 13 is similar to that shown in Figure 14 for balloon and satellite tropospheric measurements. This trend is more pronounced in the Northern Hemisphere than in the Southern. Contrary to the CO₂ warming climate models, however, tropospheric temperatures are not rising faster than surface temperatures.

Figure 6 illustrates the magnitudes of these temperature changes by comparing the 0.5 °C per century temperature change as the Earth recovers from the Little Ice Age, the range of 50-year averaged Atlantic ocean surface temperatures in the Sargasso Sea over the past 3,000 years, the range of day-night and seasonal variation on average

in Oregon, and the range of day-night and seasonal variation over the whole Earth. The two-century-long temperature change is small.

Tropospheric temperatures measured by satellite give comprehensive geographic coverage. Even the satellite measurements, however, contain short and medium-term fluctuations greater than the slight warming trends calculated from them. The calculated trends vary significantly as a function of the most recent fluctuations and the lengths of the data sets, which are short.

Figure 3 shows the latter part of the period of warming from the Little Ice Age in greater detail by means of Arctic air temperature as compared with solar irradiance, as does Figure 5 for U.S. surface temperature. There is a close correlation between solar activity and temperature and none between hydrocarbon use and temperature. Several other studies over a wide variety of time intervals have found similar correlations between climate and solar activity (15, 34-39).

Figure 3 also illustrates the uncertainties introduced by limited time records. If the Arctic air temperature data before 1920 were not available, essentially no uptrend would be observed.

This observed variation in solar activity is typical of stars close in size and age to the sun (40). The current warming trends on Mars (41), Jupiter (42), Neptune (43,44), Neptune's moon Triton (45), and Pluto (46-48) may result, in part, from similar relations to the sun and its activity – like those that are warming the Earth.

Hydrocarbon use and atmospheric CO₂ do not correlate with the observed temperatures. Solar activity correlates quite well. Correlation does not prove causality, but non-correlation proves non-causality. Human hydrocarbon use is not measurably warming the earth. Moreover, there is a robust theoretical and empirical model for solar warming and cooling of the Earth (8,19,49,50). The experimental data do not prove that solar activity is the only phenomenon responsible for substantial Earth temperature fluctuations, but they do show that human hydrocarbon use is not among those phenomena.

The overall experimental record is self-consistent. The Earth has been warming as it recovers from the Little Ice Age at an average rate of about 0.5 °C per century. Fluctuations within this temperature trend include periods of more rapid increase and also periods of temperature decrease. These fluctuations correlate well with concomitant fluctuations in the activity of the sun. Neither the trends nor the fluctuations within the trends correlate with hydrocarbon use. Sea level and glacier length reveal three intermediate uptrends and two downtrends since 1800, as does solar activity. These trends are climatically benign and result from natural processes.

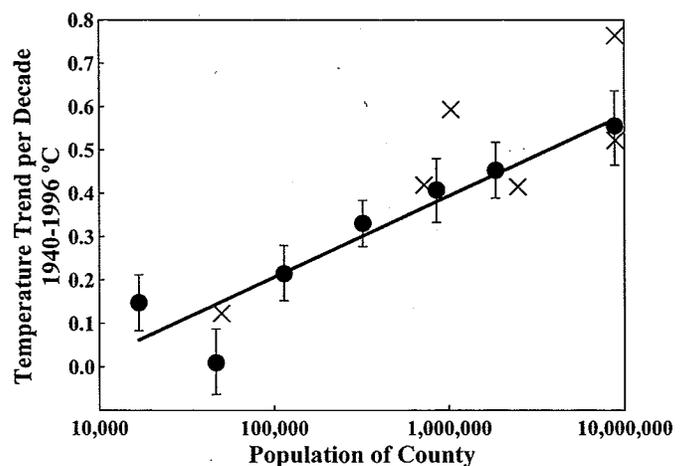


Figure 15: Surface temperature trends for 1940 to 1996 from 107 measuring stations in 49 California counties (51,52). The trends were combined for counties of similar population and plotted with the standard errors of their means. The six measuring stations in Los Angeles County were used to calculate the standard error of that county, which is plotted at a population of 8.9 million. The "urban heat island effect" on surface measurements is evident. The straight line is a least-squares fit to the closed circles. The points marked "X" are the six unadjusted station records selected by NASA GISS (53-55) for use in their estimate of global surface temperatures. Such selections make NASA GISS temperatures too high.

ATMOSPHERIC CARBON DIOXIDE

The concentration of CO₂ in Earth's atmosphere has increased during the past century, as shown in Figure 17. The magnitude of this atmospheric increase is currently about 4 gigatons (Gt C) of carbon per year. Total human industrial CO₂ production, primarily from use of coal, oil, and natural gas and the production of cement, is currently about 8 Gt C per year (7,56,57). Humans also exhale about 0.6 Gt C per year, which has been sequestered by plants from atmospheric CO₂. Office air concentrations often exceed 1,000 ppm CO₂.

To put these figures in perspective, it is estimated that the atmosphere contains 780 Gt C; the surface ocean contains 1,000 Gt C; vegetation, soils, and detritus contain 2,000 Gt C; and the intermediate and deep oceans contain 38,000 Gt C, as CO₂ or CO₂ hydration products. Each year, the surface ocean and atmosphere exchange an estimated 90 Gt C; vegetation and the atmosphere, 100 Gt C; marine biota and the surface ocean, 50 Gt C; and the surface ocean and the intermediate and deep oceans, 40 Gt C (56,57).

So great are the magnitudes of these reservoirs, the rates of exchange between them, and the uncertainties of these estimated numbers that the sources of the recent rise in atmospheric CO₂ have not been determined with certainty (58,59). Atmospheric concentrations of CO₂ are reported to have varied widely over geological time, with peaks, according to some estimates, some 20-fold higher than at present and lows at approximately 200 ppm (60-62).

Ice-core records are reported to show seven extended periods during 650,000 years in which CO₂, methane (CH₄), and temperature increased and then decreased (63-65). Ice-core records contain substantial uncertainties (58), so these correlations are imprecise.

In all seven glacial and interglacial cycles, the reported changes in CO₂ and CH₄ lagged the temperature changes and could not, therefore, have caused them (66). These fluctuations probably involved temperature-caused changes in oceanic and terrestrial CO₂ and CH₄ content. More recent CO₂ fluctuations also lag temperature (67,68).

In 1957, Revelle and Seuss (69) estimated that temperature-caused out-gassing of ocean CO₂ would increase atmospheric

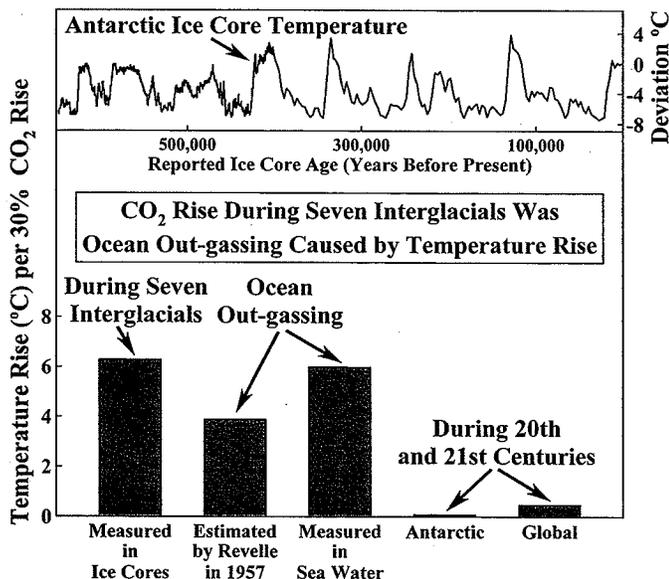


Figure 16: Temperature rise versus CO₂ rise from seven ice-core measured interglacial periods (63-65); from calculations (69) and measurements (70) of sea water out-gassing; and as measured during the 20th and 21st centuries (10,72). The interglacial temperature increases caused the CO₂ rises through release of ocean CO₂. The CO₂ rises did not cause the temperature rises.

In addition to the agreement between the out-gassing estimates and measurements, this conclusion is also verified by the small temperature rise during the 20th and 21st centuries. If the CO₂ versus temperature correlation during the seven interglacials had been caused by CO₂ greenhouse warming, then the temperature rise per CO₂ rise would have been as high during the 20th and 21st centuries as it was during the seven interglacial periods.

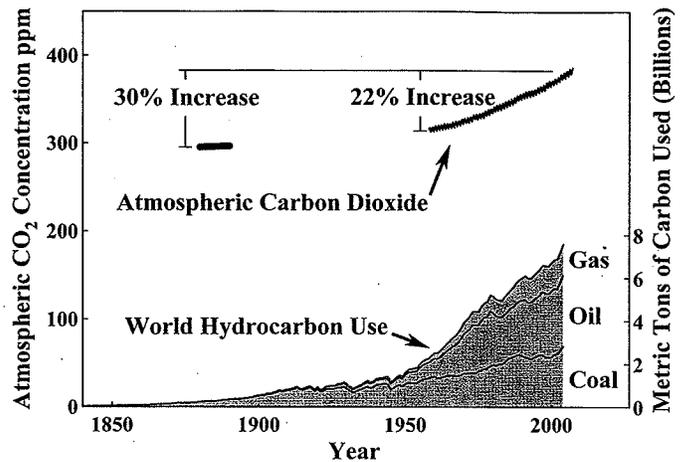


Figure 17: Atmospheric CO₂ concentrations in parts per million by volume, ppm, measured spectrophotometrically at Mauna Loa, Hawaii, between 1958 and 2007. These measurements agree well with those at other locations (71). Data before 1958 are from ice cores and chemical analyses, which have substantial experimental uncertainties. We have used 295 ppm for the period 1880 to 1890, which is an average of the available estimates. About 0.6 Gt C of CO₂ is produced annually by human respiration and often leads to concentrations exceeding 1,000 ppm in public buildings. Atmospheric CO₂ has increased 22% since 1958 and about 30% since 1880.

CO₂ by about 7% per °C temperature rise. The reported change during the seven interglacials of the 650,000-year ice core record is about 5% per °C (63), which agrees with the out-gassing calculation.

Between 1900 and 2006, Antarctic CO₂ increased 30% per 0.1 °C temperature change (72), and world CO₂ increased 30% per 0.5 °C. In addition to ocean out-gassing, CO₂ from human use of hydrocarbons is a new source. Neither this new source nor the older natural CO₂ sources are causing atmospheric temperature to change.

The hypothesis that the CO₂ rise during the interglacials caused the temperature to rise requires an increase of about 6 °C per 30% rise in CO₂ as seen in the ice core record. If this hypothesis were correct, Earth temperatures would have risen about 6 °C between 1900 and 2006, rather than the rise of between 0.1 °C and 0.5 °C, which actually occurred. This difference is illustrated in Figure 16.

The 650,000-year ice-core record does not, therefore, agree with the hypothesis of "human-caused global warming," and, in fact, provides empirical evidence that invalidates this hypothesis.

Carbon dioxide has a very short residence time in the atmosphere. Beginning with the 7 to 10-year half-time of CO₂ in the atmosphere estimated by Revelle and Seuss (69), there were 36 estimates of the atmospheric CO₂ half-time based upon experimental measurements published between 1957 and 1992 (59). These range between 2 and 25 years, with a mean of 7.5, a median of 7.6, and an upper range average of about 10. Of the 36 values, 33 are 10 years or less.

Many of these estimates are from the decrease in atmospheric carbon 14 after cessation of atmospheric nuclear weapons testing, which provides a reliable half-time. There is no experimental evidence to support computer model estimates (73) of a CO₂ atmospheric "lifetime" of 300 years or more.

Human production of 8 Gt C per year of CO₂ is negligible as compared with the 40,000 Gt C residing in the oceans and biosphere. At ultimate equilibrium, human-produced CO₂ will have an insignificant effect on the amounts in the various reservoirs. The rates of approach to equilibrium are, however, slow enough that human use creates a transient atmospheric increase.

In any case, the sources and amounts of CO₂ in the atmosphere are of secondary importance to the hypothesis of "human-caused global warming." It is human burning of coal, oil, and natural gas that is at issue. CO₂ is merely an intermediate in a hypothetical mechanism by which this "human-caused global warming" is said to take place. The amount of atmospheric CO₂ does have profound environmental effects on plant and animal populations (74) and diversity, as is discussed below.

CLIMATE CHANGE

While the average temperature change taking place as the Earth recovers from the Little Ice Age is so slight that it is difficult to discern, its environmental effects are measurable. Glacier shortening and the 7 inches per century rise in sea level are examples. There are additional climate changes that are correlated with this rise in temperature and may be caused by it.

Greenland, for example, is beginning to turn green again, as it was 1,000 years ago during the Medieval Climate Optimum (11). Arctic sea ice is decreasing somewhat (75), but Antarctic ice is not decreasing and may be increasing, due to increased snow (76-79).

In the United States, rainfall is increasing at about 1.8 inches per century, and the number of severe tornados is decreasing, as shown in Figures 7 and 8. If world temperatures continue to rise at the current rate, they will reach those of the Medieval Climate Optimum about 2 centuries from now. Historical reports of that period record the growing of warm weather crops in localities too cold for that purpose today, so it is to be expected that the area of more temperate climate will expand as it did then. This is already being observed, as studies at higher altitudes have reported increases in amount and diversity of plant and animal life by more than 50% (12,80).

Atmospheric temperature is increasing more in the Northern Hemisphere than in the Southern, with intermediate periods of increase and decrease in the overall trends.

There has been no increase in frequency or severity of Atlantic hurricanes during the period of 6-fold increase in hydrocarbon use, as is illustrated in Figures 9 and 10. Numbers of violent hurricanes vary greatly from year to year and are no greater now than they were 50 years ago. Similarly, maximum wind speeds have not increased.

All of the observed climate changes are gradual, moderate, and entirely within the bounds of ordinary natural changes that have occurred during the benign period of the past few thousand years.

There is no indication whatever in the experimental data that an abrupt or remarkable change in any of the ordinary natural climate variables is beginning or will begin to take place.

GLOBAL WARMING HYPOTHESIS

The greenhouse effect amplifies solar warming of the earth. Greenhouse gases such as H_2O , CO_2 , and CH_4 in the Earth's atmosphere, through combined convective readjustments and the radiative blanketing effect, essentially decrease the net escape of terrestrial thermal infrared radiation. Increasing CO_2 , therefore, effectively increases radiative energy input to the Earth's atmosphere. The path of this radiative input is complex. It is redistributed, both vertically and horizontally, by various physical processes, including advection, convection, and diffusion in the atmosphere and ocean.

When an increase in CO_2 increases the radiative input to the atmosphere, how and in which direction does the atmosphere respond? Hypotheses about this response differ and are schematically shown in Figure 18. Without the water-vapor greenhouse effect, the Earth would be about $14^\circ C$ cooler (81). The radiative contribution of doubling atmospheric CO_2 is minor, but this radiative greenhouse effect is treated quite differently by different climate hypotheses. The hypotheses that the IPCC (82,83) has chosen to adopt predict that the effect of CO_2 is amplified by the atmosphere, especially by water vapor, to produce a large temperature increase. Other hypotheses, shown as hypothesis 2, predict the opposite – that the atmospheric response will counteract the CO_2 increase and result in insignificant changes in global temperature (81,84,85,91,92). The experimental evidence, as described above, favors hypothesis 2. While CO_2 has increased substantially, its effect on temperature has been so slight that it has not been experimentally detected.

The computer climate models upon which "human-caused global warming" is based have substantial uncertainties and are markedly unreliable. This is not surprising, since the climate is a coupled,

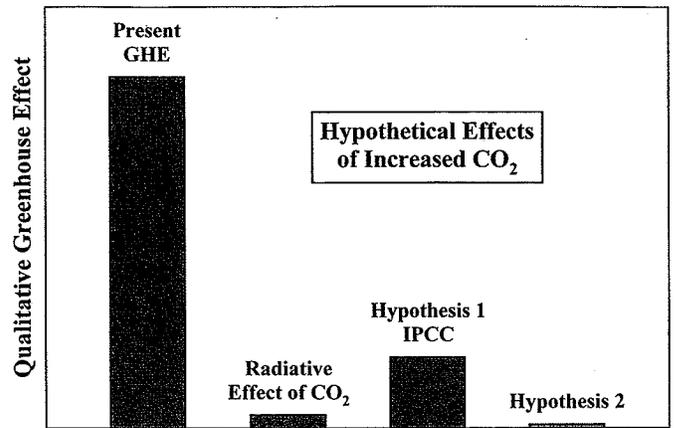


Figure 18: Qualitative illustration of greenhouse warming. "Present GWE" is the current greenhouse effect from all atmospheric phenomena. "Radiative effect of CO_2 " is the added greenhouse radiative effect from doubling CO_2 without consideration of other atmospheric components. "Hypothesis 1 IPCC" is the hypothetical amplification effect assumed by IPCC. "Hypothesis 2" is the hypothetical moderation effect.

non-linear dynamical system. It is very complex. Figure 19 illustrates the difficulties by comparing the radiative CO_2 greenhouse effect with correction factors and uncertainties in some of the parameters in the computer climate calculations. Other factors, too, such as the chemical and climatic influence of volcanoes, cannot now be reliably computer modeled.

In effect, an experiment has been performed on the Earth during the past half-century – an experiment that includes all of the complex factors and feedback effects that determine the Earth's temperature and climate. Since 1940, hydrocarbon use has risen 6-fold. Yet, this rise has had no effect on the temperature trends, which have continued their cycle of recovery from the Little Ice Age in close correlation with increasing solar activity.

Not only has the global warming hypothesis failed experimental tests, it is theoretically flawed as well. It can reasonably be argued that cooling from negative physical and biological feedbacks to greenhouse gases nullifies the slight initial temperature rise (84,86).

The reasons for this failure of the computer climate models are subjects of scientific debate (87). For example, water vapor is the largest contributor to the overall greenhouse effect (88). It has been suggested that the climate models treat feedbacks from clouds, water vapor, and related hydrology incorrectly (85,89-92).

The global warming hypothesis with respect to CO_2 is not based upon the radiative properties of CO_2 itself, which is a very weak greenhouse gas. It is based upon a small initial increase in temperature caused by CO_2 and a large theoretical amplification of that temperature increase, primarily through increased evaporation of H_2O , a

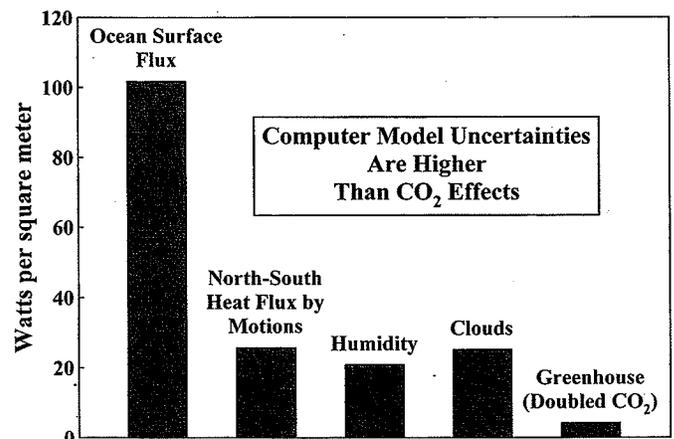


Figure 19: The radiative greenhouse effect of doubling the concentration of atmospheric CO_2 (right bar) as compared with four of the uncertainties in the computer climate models (87,93).

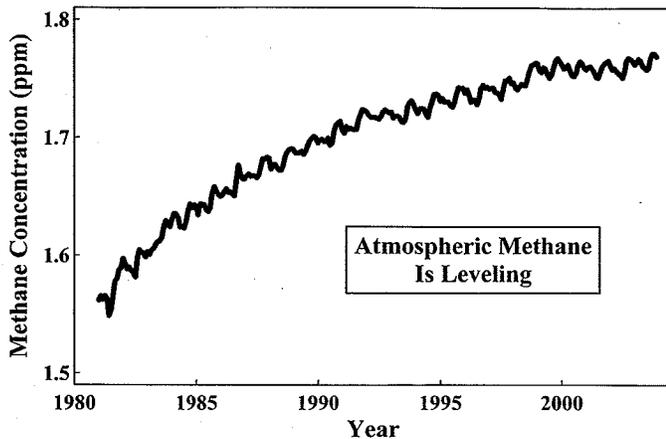


Figure 20: Global atmospheric methane concentration in parts per million between 1982 and 2004 (94).

strong greenhouse gas. Any comparable temperature increase from another cause would produce the same calculated outcome.

Thus, the 3,000-year temperature record illustrated in Figure 1 also provides a test of the computer models. The historical temperature record shows that the Earth has previously warmed far more than could be caused by CO₂ itself. Since these past warming cycles have not initiated water-vapor-mediated atmospheric warming catastrophes, it is evident that weaker effects from CO₂ cannot do so.

Methane is also a minor greenhouse gas. World CH₄ levels are, as shown in Figure 20, leveling off. In the U.S. in 2005, 42% of human-produced methane was from hydrocarbon energy production, 28% from waste management, and 30% from agriculture (95). The total amount of CH₄ produced from these U.S. sources decreased 7% between 1980 and 2005. Moreover, the record shows that, even while methane was increasing, temperature trends were benign.

The “human-caused global warming” – often called the “global warming” – hypothesis depends entirely upon computer model-generated scenarios of the future. There are no empirical records that verify either these models or their flawed predictions (96).

Claims (97) of an epidemic of insect-borne diseases, extensive species extinction, catastrophic flooding of Pacific islands, ocean acidification, increased numbers and severities of hurricanes and tornados, and increased human heat deaths from the 0.5 °C per century temperature rise are not consistent with actual observations. The “human-caused global warming” hypothesis and the computer calculations that support it are in error. They have no empirical support and are invalidated by numerous observations.

WORLD TEMPERATURE CONTROL

World temperature is controlled by natural phenomena. What steps could mankind take if solar activity or other effects began to shift the Earth toward temperatures too cold or too warm for optimum human life?

First, it would be necessary to determine what temperature humans feel is optimum. It is unlikely that the chosen temperature would be exactly that which we have today. Second, we would be fortunate if natural forces were to make the Earth too warm rather than too cold because we can cool the Earth with relative ease. We have no means by which to warm it. Attempting to warm the Earth with addition of CO₂ or to cool the Earth by restrictions of CO₂ and hydrocarbon use would, however, be futile. Neither would work.

Inexpensively blocking the sun by means of particles in the upper atmosphere would be effective. S.S. Penner, A.M. Schneider, and E. M. Kennedy have proposed (98) that the exhaust systems of commercial airliners could be tuned in such a way as to eject particulate sun-blocking material into the upper atmosphere. Later, Edward Teller similarly suggested (18) that particles could be injected into

the atmosphere in order to reduce solar heating and cool the Earth. Teller estimated a cost of between \$500 million and \$1 billion per year for between 1 °C and 3 °C of cooling. Both methods use particles so small that they would be invisible from the Earth.

These methods would be effective and economical in blocking solar radiation and reducing atmospheric and surface temperatures. There are other similar proposals (99). World energy rationing, on the other hand, would not work.

The climate of the Earth is now benign. If temperatures become too warm, this can easily be corrected. If they become too cold, we have no means of response – except to maximize nuclear and hydrocarbon energy production and technological advance. This would help humanity adapt and might lead to new mitigation technology.

FERTILIZATION OF PLANTS BY CO₂

How high will the CO₂ concentration of the atmosphere ultimately rise if mankind continues to increase the use of coal, oil, and natural gas? At ultimate equilibrium with the ocean and other reservoirs there will probably be very little increase. The current rise is a non-equilibrium result of the rate of approach to equilibrium.

One reservoir that would moderate the increase is especially important. Plant life provides a large sink for CO₂. Using current knowledge about the increased growth rates of plants and assuming increased CO₂ release as compared to current emissions, it has been estimated that atmospheric CO₂ levels may rise to about 600 ppm before leveling off. At that level, CO₂ absorption by increased Earth biomass is able to absorb about 10 Gt C per year (100). At present, this absorption is estimated to be about 3 Gt C per year (57).

About 30% of this projected rise from 295 to 600 ppm has already taken place, without causing unfavorable climate changes. Moreover, the radiative effects of CO₂ are logarithmic (101,102), so more than 40% of any climatic influences have already occurred.

As atmospheric CO₂ increases, plant growth rates increase. Also, leaves transpire less and lose less water as CO₂ increases, so that plants are able to grow under drier conditions. Animal life, which depends upon plant life for food, increases proportionally.

Figures 21 to 24 show examples of experimentally measured increases in the growth of plants. These examples are representative of a very large research literature on this subject (103-109). As Figure 21 shows, long-lived 1,000- to 2,000-year-old pine trees have shown a sharp increase in growth during the past half-century. Figure 22 shows the 40% increase in the forests of the United States that has

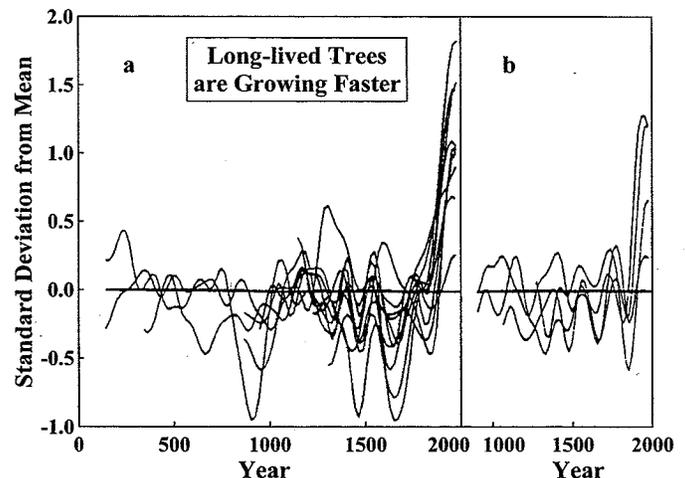


Figure 21: Standard deviation from the mean of tree ring widths for (a) bristlecone pine, limber pine, and fox tail pine in the Great Basin of California, Nevada, and Arizona and (b) bristlecone pine in Colorado (110). Tree ring widths were averaged in 20-year segments and then normalized so that the means of prior tree growth were zero. The deviations from the means are shown in units of standard deviations of those means.

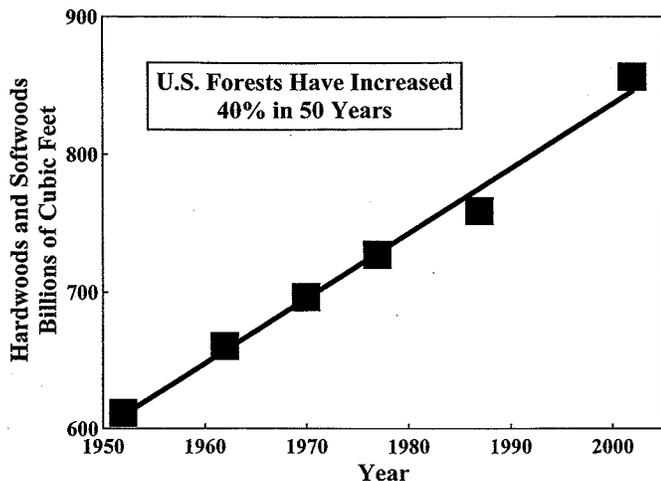


Figure 22: Inventories of standing hardwood and softwood timber in the United States compiled in *Forest Resources of the United States, 2002*, U.S. Department of Agriculture Forest Service (111,112). The linear trend cited in 1998 (1) with an increase of 30% has continued. The increase is now 40%. The amount of U.S. timber is rising almost 1% per year.

taken place since 1950. Much of this increase is due to the increase in atmospheric CO₂ that has already occurred. In addition, it has been reported that Amazonian rain forests are increasing their vegetation by about 900 pounds of carbon per acre per year (113), or approximately 2 tons of biomass per acre per year. Trees respond to CO₂ fertilization more strongly than do most other plants, but all plants respond to some extent.

Since plant response to CO₂ fertilization is nearly linear with respect to CO₂ concentration over the range from 300 to 600 ppm, as seen in Figure 23, experimental measurements at different levels of CO₂ enrichment can be extrapolated. This has been done in Figure 24 in order to illustrate CO₂ growth enhancements calculated for the atmospheric increase of about 88 ppm that has already taken place and those expected from a projected total increase of 305 ppm.

Wheat growth is accelerated by increased atmospheric CO₂, especially under dry conditions. Figure 24 shows the response of wheat grown under wet conditions versus that of wheat stressed by lack of water. The underlying data is from open-field experiments. Wheat was grown in the usual way, but the atmospheric CO₂ concentrations of circular sections of the fields were increased by arrays of com-

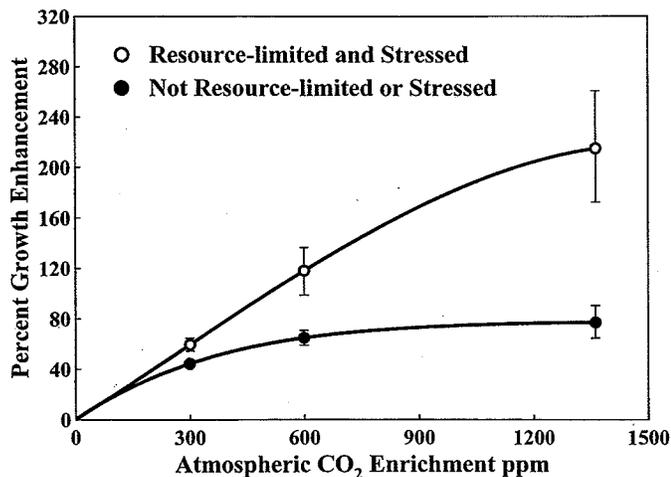


Figure 23: Summary data from 279 published experiments in which plants of all types were grown under paired stressed (open red circles) and unstressed (closed blue circles) conditions (114). There were 208, 50, and 21 sets at 300, 600, and an average of about 1350 ppm CO₂, respectively. The plant mixture in the 279 studies was slightly biased toward plant types that respond less to CO₂ fertilization than does the actual global mixture. Therefore, the figure underestimates the expected global response. CO₂ enrichment also allows plants to grow in drier regions, further increasing the response.

puter-controlled equipment that released CO₂ into the air to hold the levels as specified (115,116). Orange and young pine tree growth enhancement (117-119) with two atmospheric CO₂ increases – that which has already occurred since 1885 and that projected for the next two centuries – is also shown. The relative growth enhancement of trees by CO₂ diminishes with age. Figure 24 shows young trees.

Figure 23 summarizes 279 experiments in which plants of various types were raised under CO₂-enhanced conditions. Plants under stress from less-than-ideal conditions – a common occurrence in nature – respond more to CO₂ fertilization. The selections of species in Figure 23 were biased toward plants that respond less to CO₂ fertilization than does the mixture actually covering the Earth, so Figure 23 underestimates the effects of global CO₂ enhancement.

Clearly, the green revolution in agriculture has already benefitted from CO₂ fertilization, and benefits in the future will be even greater. Animal life is increasing proportionally, as shown by studies of 51 terrestrial (120) and 22 aquatic ecosystems (121). Moreover, as shown by a study of 94 terrestrial ecosystems on all continents ex-

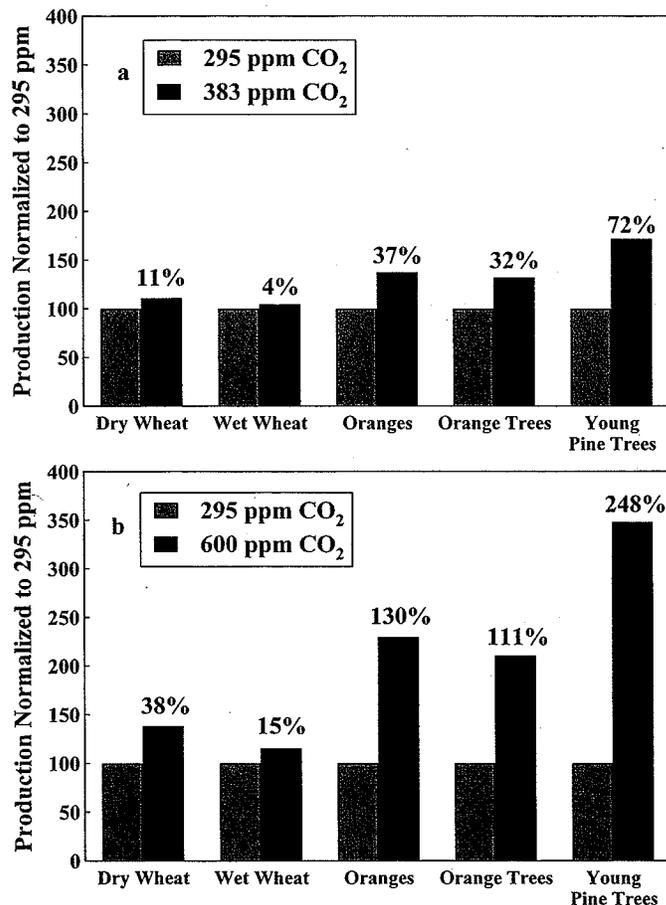


Figure 24: Calculated (1,2) growth rate enhancement of wheat, young orange trees, and very young pine trees already taking place as a result of atmospheric enrichment by CO₂ from 1885 to 2007 (a), and expected as a result of atmospheric enrichment by CO₂ to a level of 600 ppm (b).

cept Antarctica (122), species richness – biodiversity – is more positively correlated with productivity – the total quantity of plant life per acre – than with anything else.

Atmospheric CO₂ is required for life by both plants and animals. It is the sole source of carbon in all of the protein, carbohydrate, fat, and other organic molecules of which living things are constructed.

Plants extract carbon from atmospheric CO₂ and are thereby fertilized. Animals obtain their carbon from plants. Without atmospheric CO₂, none of the life we see on Earth would exist.

Water, oxygen, and carbon dioxide are the three most important substances that make life possible.

They are surely not environmental pollutants.

ENVIRONMENT AND ENERGY

The single most important human component in the preservation of the Earth's environment is energy. Industrial conversion of energy into forms that are useful for human activities is the most important aspect of technology. Abundant inexpensive energy is required for the prosperous maintenance of human life and the continued advance of life-enriching technology. People who are prosperous have the wealth required to protect and enhance their natural environment.

Currently, the United States is a net importer of energy as shown in Figure 25. Americans spend about \$300 billion per year for imported oil and gas – and an additional amount for military expenses related to those imports.

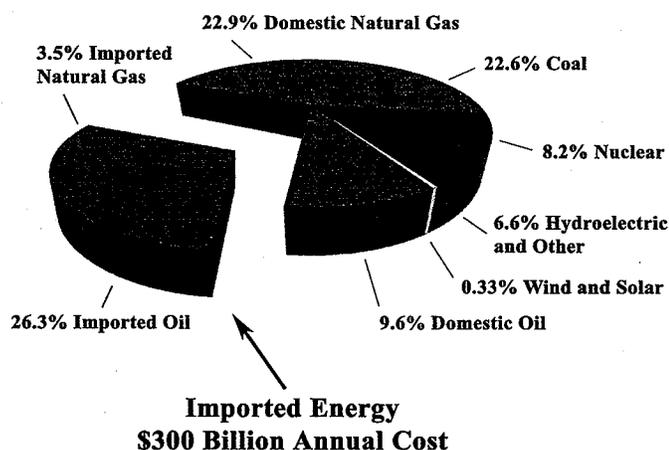


Figure 25: In 2006, the United States obtained 84.9% of its energy from hydrocarbons, 8.2% from nuclear fuels, 2.9% from hydroelectric dams, 2.1% from wood, 0.8% from biofuels, 0.4% from waste, 0.3% from geothermal, and 0.3% from wind and solar radiation. The U.S. uses 21 million barrels of oil per day – 27% from OPEC, 17% from Canada and Mexico, 16% from others, and 40% produced in the U.S. (95). The cost of imported oil and gas at \$60 per barrel and \$7 per 1,000 ft³ in 2007 is about \$300 billion per year.

Political calls for a reduction of U.S. hydrocarbon use by 90% (123), thereby eliminating 75% of America's energy supply, are obviously impractical. Nor can this 75% of U.S. energy be replaced by alternative "green" sources. Despite enormous tax subsidies over the past 30 years, green sources still provide only 0.3% of U.S. energy.

Yet, the U.S. clearly cannot continue to be a large net importer of energy without losing its economic and industrial strength and its political independence. It should, instead, be a net exporter of energy.

There are three realistic technological paths to American energy independence – increased use of hydrocarbon energy, nuclear energy, or both. There are no climatological impediments to increased use of hydrocarbons, although local environmental effects can and must be accommodated. Nuclear energy is, in fact, less expensive and more environmentally benign than hydrocarbon energy, but it too has been the victim of the politics of fear and claimed disadvantages and dangers that are actually negligible.

For example, the "problem" of high-level "nuclear waste" has been given much attention, but this problem has been politically created by U.S. government barriers to American fuel breeding and reprocessing. Spent nuclear fuel can be recycled into new nuclear fuel. It need not be stored in expensive repositories.

Reactor accidents are also much publicized, but there has never been even one human death associated with an American nuclear reactor incident. By contrast, American dependence on automobiles results in more than 40,000 human deaths per year.

All forms of energy generation, including "green" methods, entail industrial deaths in the mining, manufacture, and transport of resources they require. Nuclear energy requires the smallest amount of such resources (124) and therefore has the lowest risk of deaths.

Estimated relative costs of electrical energy production vary with

geographical location and underlying assumptions. Figure 26 shows a recent British study, which is typical. At present, 43% of U.S. energy consumption is used for electricity production.

To be sure, future inventions in energy technology may alter the relative economics of nuclear, hydrocarbon, solar, wind, and other methods of energy generation. These inventions cannot, however, be forced by political fiat, nor can they be wished into existence. Alternatively, "conservation," if practiced so extensively as to be an alternative to hydrocarbon and nuclear power, is merely a politically correct word for "poverty."

The current untenable situation in which the United States is losing \$300 billion per year to pay for foreign oil and gas is not the result of failures of government energy production efforts. The U.S. government does not produce energy. Energy is produced by private industry. Why then has energy production thrived abroad while domestic production has stagnated?

This stagnation has been caused by United States government taxation, regulation, and sponsorship of litigation, which has made the U.S. a very unfavorable place to produce energy. In addition, the U.S. government has spent vast sums of tax money subsidizing inferior energy technologies for political purposes.

It is not necessary to discern in advance the best course to follow. Legislative repeal of taxation, regulation, incentives to litigation, and repeal of all subsidies of energy generation industries would stimulate industrial development, wherein competition could then automatically determine the best paths.

Nuclear power is safer, less expensive, and more environmentally benign than hydrocarbon power, so it is probably the better choice for increased energy production. Solid, liquid and gaseous hydrocarbon fuels provide, however, many conveniences, and a national infrastructure to use them is already in place. Oil from shale or coal liquefaction is less expensive than crude oil at current prices, but its ongoing production costs are higher than those for already developed oil fields. There is, therefore, an investment risk that crude oil prices could drop so low that liquefaction plants could not compete. Nuclear energy does not have this disadvantage, since the operating costs of nuclear power plants are very low.

Figure 27 illustrates, as an example, one practical and environmentally sound path to U.S. energy independence. At present 19% of U.S. electricity is produced by 104 nuclear power reactors with an average generating output in 2006 of 870 megawatts per reactor, for a total of about 90 GWe (gigawatts) (125). If this were increased by 560 GWe, nuclear power could fill all current U.S. electricity requirements and have 230 GWe left over for export as electricity or as hydrocarbon fuels replaced or manufactured.

Thus, rather than a \$300 billion trade loss, the U.S. would have a \$200 billion trade surplus – and installed capacity for future U.S. re-

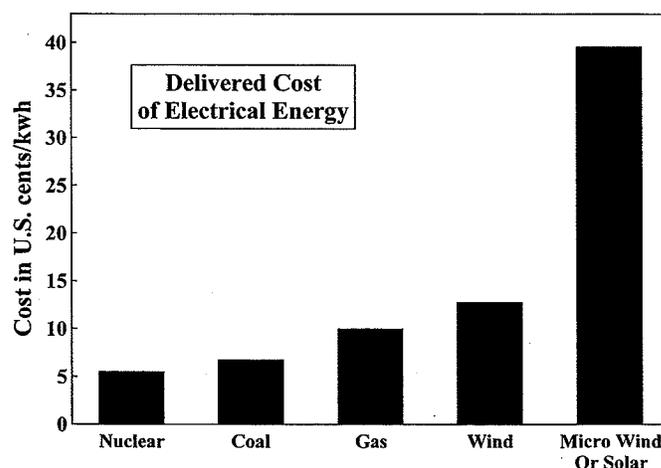


Figure 26: Delivered cost per kilowatt hour of electrical energy in Great Britain in 2006, without CO₂ controls (126). These estimates include all capital and operational expenses for a period of 50 years. Micro wind or solar are units installed for individual homes.

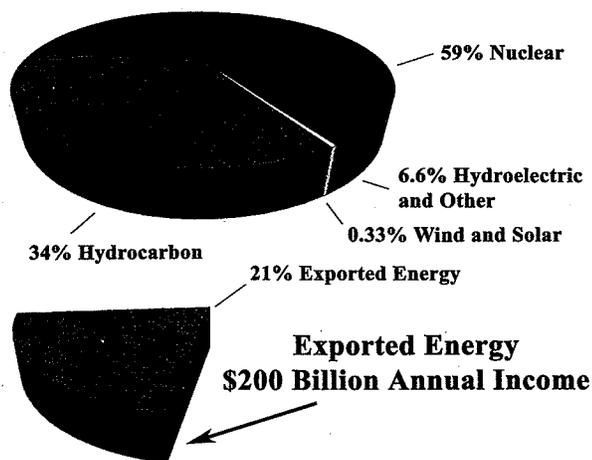


Figure 27: Construction of one Palo Verde installation with 10 reactors in each of the 50 states. Energy trade deficit is reversed by \$500 billion per year, resulting in a \$200 billion annual surplus. Currently, this solution is not possible owing to misguided government policies, regulations, and taxation and to legal maneuvers available to anti-nuclear activists. These impediments should be legislatively repealed.

quirements. Moreover, if heat from additional nuclear reactors were used for coal liquefaction and gasification, the U.S. would not even need to use its oil resources. The U.S. has about 25% of the world's coal reserves. This heat could also liquify biomass, trash, or other sources of hydrocarbons that might eventually prove practical.

The Palo Verde nuclear power station near Phoenix, Arizona, was originally intended to have 10 nuclear reactors with a generating capacity of 1,243 megawatts each. As a result of public hysteria caused by false information – very similar to the human-caused global warming hysteria being spread today, construction at Palo Verde was stopped with only three operating reactors completed. This installation is sited on 4,000 acres of land and is cooled by waste water from the city of Phoenix, which is a few miles away. An area of 4,000 acres is 6.25 square miles or 2.5 miles square. The power station itself occupies only a small part of this total area.

If just one station like Palo Verde were built in each of the 50 states and each installation included 10 reactors as originally planned for Palo Verde, these plants, operating at the current 90% of design capacity, would produce 560 GWe of electricity. Nuclear technology has advanced substantially since Palo Verde was built, so plants constructed today would be even more reliable and efficient.

Assuming a construction cost of \$2.3 billion per 1,200 MWe reactor (127) and 15% economies of scale, the total cost of this entire project would be \$1 trillion, or 4 months of the current U.S. federal budget. This is 8% of the annual U.S. gross domestic product. Construction costs could be repaid in just a few years by the capital now spent by the people of the United States for foreign oil and by the change from U.S. import to export of energy.

The 50 nuclear installations might be sited on a population basis. If so, California would have six, while Oregon and Idaho together would have one. In view of the great economic value of these facilities, there would be vigorous competition for them.

In addition to these power plants, the U.S. should build fuel reprocessing capability, so that spent nuclear fuel can be reused. This would lower fuel cost and eliminate the storage of high-level nuclear waste. Fuel for the reactors can be assured for 1,000 years (128) by using both ordinary reactors with high breeding ratios and specific breeder reactors, so that more fuel is produced than consumed.

About 33% of the thermal energy in an ordinary nuclear reactor is converted to electricity. Some new designs are as high as 48%. The heat from a 1,243 MWe reactor can produce 38,000 barrels of coal-derived oil per day (129). With one additional Palo Verde installation in each state for oil production, the yearly output would be at least 7 billion barrels per year with a value, at \$60 per barrel, of

more than \$400 billion per year. This is twice the oil production of Saudi Arabia. Current proven coal reserves of the United States are sufficient to sustain this production for 200 years (128). This liquified coal exceeds the proven oil reserves of the entire world. The reactors could produce gaseous hydrocarbons from coal, too.

The remaining heat from nuclear power plants could warm air or water for use in indoor climate control and other purposes.

Nuclear reactors can also be used to produce hydrogen, instead of oil and gas (130,131). The current cost of production and infrastructure is, however, much higher for hydrogen than for oil and gas. Technological advance reduces cost, but usually not abruptly. A prescient call in 1800 for the world to change from wood to methane would have been impracticably ahead of its time, as may be a call today for an abrupt change from oil and gas to hydrogen. In distinguishing the practical from the futuristic, a free market in energy is absolutely essential.

Surely these are better outcomes than are available through international rationing and taxation of energy as has been recently proposed (83,97,123). This nuclear energy example demonstrates that current technology can produce abundant inexpensive energy if it is not politically suppressed.

There need be no vast government program to achieve this goal. It could be reached simply by legislatively removing all taxation, most regulation and litigation, and all subsidies from all forms of energy production in the U.S., thereby allowing the free market to build the most practical mixture of methods of energy generation.

With abundant and inexpensive energy, American industry could be revitalized, and the capital and energy required for further industrial and technological advance could be assured. Also assured would be the continued and increased prosperity of all Americans.

The people of the United States need more low-cost energy, not less. If this energy is produced in the United States, it can not only become a very valuable export, but it can also ensure that American industry remains competitive in world markets and that hoped-for American prosperity continues and grows.

In this hope, Americans are not alone. Across the globe, billions of people in poorer nations are struggling to improve their lives. These people need abundant low-cost energy, which is the currency of technological progress.

In newly developing countries, that energy must come largely from the less technologically complicated hydrocarbon sources. It is a moral imperative that this energy be available. Otherwise, the efforts of these peoples will be in vain, and they will slip backwards into lives of poverty, suffering, and early death.

Energy is the foundation of wealth. Inexpensive energy allows people to do wonderful things. For example, there is concern that it may become difficult to grow sufficient food on the available land. Crops grow more abundantly in a warmer, higher CO₂ environment, so this can mitigate future problems that may arise (12).

Energy provides, however, an even better food insurance plan. Energy-intensive hydroponic greenhouses are 2,000 times more productive per unit land area than are modern American farming methods (132). Therefore, if energy is abundant and inexpensive, there is no practical limit to world food production.

Fresh water is also believed to be in short supply. With plentiful inexpensive energy, sea water desalination can provide essentially unlimited supplies of fresh water.

During the past 200 years, human ingenuity in the use of energy has produced many technological miracles. These advances have markedly increased the quality, quantity, and length of human life. Technologists of the 21st century need abundant, inexpensive energy with which to continue this advance.

Were this bright future to be prevented by world energy rationing, the result would be tragic indeed. In addition to human loss, the Earth's environment would be a major victim of such a mistake. Inexpensive energy is essential to environmental health. Prosperous people have the wealth to spare for environmental preservation and enhancement. Poor, impoverished people do not.

CONCLUSIONS

There are no experimental data to support the hypothesis that increases in human hydrocarbon use or in atmospheric carbon dioxide and other greenhouse gases are causing or can be expected to cause unfavorable changes in global temperatures, weather, or landscape. There is no reason to limit human production of CO₂, CH₄, and other minor greenhouse gases as has been proposed (82,83,97,123).

We also need not worry about environmental calamities even if the current natural warming trend continues. The Earth has been much warmer during the past 3,000 years without catastrophic effects. Warmer weather extends growing seasons and generally improves the habitability of colder regions.

As coal, oil, and natural gas are used to feed and lift from poverty vast numbers of people across the globe, more CO₂ will be released into the atmosphere. This will help to maintain and improve the health, longevity, prosperity, and productivity of all people.

The United States and other countries need to produce more energy, not less. The most practical, economical, and environmentally sound methods available are hydrocarbon and nuclear technologies.

Human use of coal, oil, and natural gas has not harmfully warmed the Earth, and the extrapolation of current trends shows that it will not do so in the foreseeable future. The CO₂ produced does, however, accelerate the growth rates of plants and also permits plants to grow in drier regions. Animal life, which depends upon plants, also flourishes, and the diversity of plant and animal life is increased.

Human activities are producing part of the rise in CO₂ in the atmosphere. Mankind is moving the carbon in coal, oil, and natural gas from below ground to the atmosphere, where it is available for conversion into living things. We are living in an increasingly lush environment of plants and animals as a result of this CO₂ increase. Our children will therefore enjoy an Earth with far more plant and animal life than that with which we now are blessed.

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October 5, 2009

To: Los Angeles Regional Planning Commission

Re: One Valley, One Vision – Tesoro del Valle Development

CH Small 5 acre Ranch in SF Canyon.

When the residents of San Francisquito Canyon opposed the massive development of Tesoro del Valle's many planned phases in the mid to late 1990's, the L. A. County Board of Supervisors, after many meetings and testimonies from residents and developer alike, approved zoning for each of their 4 phases, ^{with a higher density in Phase A,} phasing down through Phase B, C and D, with each phase increasing lot sizes. In Phase C lots were approved ranging from a minimum of 1 acre to a maximum of 5.2 acres.

At that time, Supervisor Mike Antonovich was ~~on board and was~~ instrumental in the decision by the board to phase the lot sizes to increase coming up the canyon with the intent of maintaining the integrity of San Francisquito Canyon and surrounding hills.

With the approval of our CSD's just last month protecting this canyon and it's environs, and with this same intent of maintaining a rural atmosphere for years to come, this same area zoning on the hillsides surrounding San Francisquito Canyon should remain as it was intended by approval of the L. A. County Board of Supervisors in 1999. There was a reason the zoning was applied by the Supervisors at that time, and that condition still remains today. This is a rural community, which includes our hills, zoned A-2, and should remain rural.

Cheryl and Jack Hawkins
23001 Riverview Road
Santa Clarita, Ca. 91390
rdhdwmnscv@aol.com
661-296-1350

10/9/09

Dear Planning Commission,

Thank you for the opportunity to address the proposed land use designations.

I am a member of the San Francisquito Cyn Pres. Assoc

We wish to RETAIN A2-2 or the equivalent of RURAL LAND TWO for Phases B and C of Tesoro del Valle, Tr. 51644, C.U.P. 074 approved in May 1999.

This C.U.P designated the remaining phases to remain A2-2, but rezone only Phase A. This approval by the Bd of Sups. upholds their unanimous vote to preserve, promote, enhance, and expand the equestrian lifestyle. It should not be changed in an effort to defeat the purpose of our long hard fight to preserve the area for horses and a rural lifestyle with ~~A2-2 zoning~~. *The current A2-2 zoning is*

The proposed land use change to H-2 negates the agricultural uses and denies livestock and horsekeeping. The Cliffie Stone Trail will extend thru these Phases along with two other trails designated by the Santa Clarita Trails Advisory Committee, as requested by Supervisor Antonovich.

We wish to request that the land remain designated as A2-2 or its equivalent so as to not impose RESTRICTIONS TO AGRICULTURAL USES and conform to the adjacent land uses to the east, west, and north currently zoned A2-2. This H-2 land use is a non-conforming land use and we need to retain our rural areas in this area especially for horsekeeping.

Changing this will be inconsistent with the Tapia Ranch Project and San Francisquito Canyon by allowing a much higher density, ~~due to the poor planning of Phase A.~~ *designated*

We also wish to request that the extension of McBean be deleted from the Master Plan of Highways onto San Francisquito Cyn Road. This canyon is rural with community standards that retains many varied equestrian uses and is home to our California Rangers Program, Mtd Posse Reserve participants, trail advocates, and Equestrian Trails, Inc. *@ Gene E. Brock Farm*

Sherrie Stolarik
- Santa Clarita Trails Advisory
Committee
- Equestrian Trails, Inc

25241 W Carson Way
Stevenson Ranch, CA
91381

September 22, 2009

Planning Commissioners
Department of Regional Planning
Los Angeles County
320 West Temple Street
Los Angeles, CA 90012

Fax No. 213-626-0434

Dear Planning Commissioners:

Subject: Comments to One Valley One Vision Land Use Change of A2-2 to H-2
In Phases B and C of Tract No. 51644, Tesoro del Valle
C.U.P. No.92- 074 Approved May 1999

This is to state that Tesoro del Valle was approved with 1,500+ units for Phase A with the intent that the remaining portions of Phases B and C retain A2-2 zoning to foster, encourage, and retain agricultural, equestrian, and rural uses. The fact that they requested far more many units than they could possibly fit in Phase A should not allow a density transfer to further delete A2-2 zoning by accommodating this project with a land use change of H-2, ½ acre estate lots allowing 714+ lots instead of the approved 244 lots.. We met with the County to update the General Plan to foster A2-2 min. 2 acre agricultural zoning especially in these areas where it exists and is part of the Santa Clarita Valley Wide Area Plan. This land use change for Phases B and C will constitute a denial, removal, and undermine the agricultural A2-2 zoning for this area. **WE WANT THE LAND USE CHANGE TO BE RURAL LAND 2, NOT H-2.**

The unanimous vote of the Board of Supervisors to preserve, promote, enhance, and expand the equestrian lifestyle further supports this approved CUP. It should not be changed in an effort to defeat the purpose of our long hard fight to preserve the area for horses and a rural lifestyle.

Therefore, we request that Regional Planning:

1. **RETAIN A2-2 OR RURAL LAND ZONING** – the proposed land use conflicts with existing zoning for agricultural use.

WHY:

1. This land use change imposes **RESTRICTIONS** to livestock and horsekeeping and does not foster agricultural and preserve these uses.

2. This land use change will be INCONSISTENT with the adjacent projects, i.e., Tapia Ranch Project, Tract No. 53822 - proposed for horsekeeping with trails and the continuity of the County's Regional CLIFFIE STONE TRAIL from Tesoro del Valle Phase A, and with the SunCal Project, Tract No. 53189, and their connecting wildlife corridor trail known as the Harris Trail. These trails also connect to the County's Historical Butterfield Overland Stage Route trail in San Francisquito Cyn.
3. The land use change is INCONSISTENT with the community character of equestrian rural nature of San Francisquito Cyn.
4. THIS LAND USE CHANGE WILL DIVIDE THE HORSEKEEPING COMMUNITY by allowing 750 lots between the rural, equestrian community proposed in the Tapia Ranch Project and the approved SunCal Project and community standards for San Francisquito Cyn.
5. This land use change will allow too many vehicles on the surrounding road system adjacent to the Cliffie Stone Trail AND THERE IS NO SECONDARY ACCESS VIA THE TAPIA RANCH PROJECT.

*Also, Please remove the Extension
of McBean from the Master
Plan of Highways into San Francisquito
Cyn Rd.*

*Sherrie Stolasik
213-3994220
25241 Carson Way
Stevenson Ranch CA
91381*

Judy Reinsma
29750 San Francisquito Canyon Rd.
Saugus, CA 91390

October 5, 2009

Planning Commission
Los Angeles County

Dear Sirs:

I live in San Francisquito Canyon where we were just granted a Community Standards District for our rural ranch community.

Immediately to the West of the canyon is the Tesoro del Valle development. In 1999, local residents in the Santa Clarita Valley were successful in getting the density of this huge tract reduced, so that clustered and small lot dwellings would not march from Copper Hill Drive all the way up to the National Forest.

The present approved plan for the un-built area of Tesoro, called Area C, covers 668.7 acres. This can be seen on the OVOV map as a yellow area extending North between the San Francisquito Canyon and Castaic area CSD's. This area, which is zoned A-2, has been approved for 115 dwelling units with lot sizes ranging from a minimum of 1 Acre to a maximum of 5.2 acres.

If this property is designated H-2, as shown in OVOV, then the homes allowed, under the 2 dwelling units per gross acre parameters, will be 1,337. This would grant the developer the opportunity to build an additional 1,222 dwelling units beyond the number allowed when this development was approved. This without any hearings, public input, or any of the normal scrutiny provided by Planning Division or the Planning Commission for such a major change. This is wrong.

I respectfully request that the H-2 overlay for Tesoro del Valle be removed, the current zoning and dwelling units allowed for this property remain as is, and that any changes be done following standard procedures, including professional review by Planning Division, and public hearings.

Sincerely



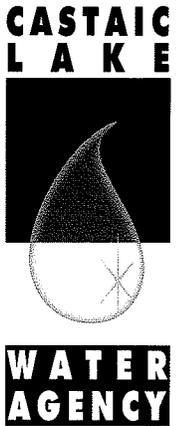
Judy Reinsma

This is a written copy of my oral presentation, for those who could not hear.

October 28, 2009

NOV - 2 2009

Mr. Mitch Glaser
Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012



Re: Castaic Lake Water Agency Comments on the One Valley One Vision, Draft Environmental Impact Report

Dear Mr. Glaser:

The Castaic Lake Water Agency (CLWA) is the provider of imported water to the Santa Clarita Valley. The CLWA service area covers the proposed project area and the determination of water demand and availability for the area is addressed in the 2005 Santa Clarita Valley Urban Water Management Plan prepared by CLWA and the local water retailers. As such, CLWA has an interest in Valley water issues and submits this letter in response to the Draft Environmental Impact Report (DEIR).

The proposed project is an update of the County of Los Angeles Santa Clarita Valley Area Plan, a component of the One Valley One Vision (OVOV), a joint planning effort with the City of Santa Clarita. The DEIR analyzes the impacts from the proposed plan updates, including those anticipated impacts in the Water Service category. The Water Service analysis in the DEIR emphasizes water use over the next twenty years (through 2030) in the Santa Clarita Valley. The analysis states the proposed buildout of the OVOV Planning Area would generate a total water demand of 125,400 acre-feet per year (afy) in 2030 (normal hydrology) with ten percent water conservation. Based on the information presented the DEIR, it also includes a conclusion that an adequate supply of water would be available to serve the OVOV Planning Area at its proposed buildout population of 443,000.

CLWA is supportive of the efforts to update the plans and submits the following comments on the Water Service Section (Section 3-13) of the DEIR and its supporting documentation:

Water Resources

1. The analysis in the Water Resources Section does not incorporate the water supply impacts of recently issued regulatory actions affecting imported water supply. As a result, the conclusion that there is a less-than-significant impact may be premature. CLWA's State Water Project supplies have been affected by a pair of Biological Opinions (BOs) issued by regulatory agencies to comply with the federal Endangered Species Act.

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"A PUBLIC AGENCY PROVIDING RELIABLE, QUALITY WATER AT A REASONABLE COST TO THE SANTA CLARITA VALLEY"

These BOs restrict flow rates on various watercourses that convey water to the State Water Project (SWP) export facilities in the Delta, resulting in additional restrictions on SWP pumping.

Although the restrictions on SWP exports from the Delta that are included in the BOs are currently in effect, the California Department of Water Resources (DWR) has not issued formal guidance regarding how these BOs will affect the reliability of SWP supplies. Such guidance would normally be forthcoming in an update to DWR's 2007 State Water Project Delivery Reliability Report (Reliability Report). Pending a revision of the Reliability Report by DWR, there is uncertainty in regards to the SWP Table A supply amounts in the various hydrology scenarios used to determine overall water supply adequacy. The quantities used in the DEIR for SWP supplies, while correct at the time they were generated, need to be updated to reflect the most recent actions by the courts and regulatory agencies.

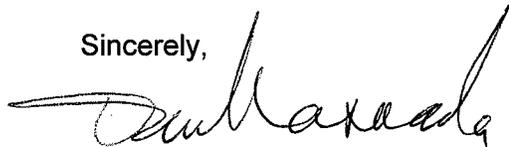
Therefore, the use of that data as part of the DEIR analysis to conclude that there are adequate supplies to support the buildout of the OVOV should not be used and conclusions should be drawn from a future estimate of overall water supplies prepared using an updated Reliability Report for the SWP supply component. The updated Reliability Report is anticipated by yearend 2009. Once it is available, CLWA will need some time to evaluate the changes to supply, and will then submit those adjusted supply figures to the Regional Planning staff.

2. The Agency letter to the City and County (page 3.13-62) cited as supporting documentation, is outdated as it was written prior to the issuance of the two recent BOs described above and has been superseded by more recent regulatory actions and judicial decisions affecting SWP water supplies. Accordingly, the Agency and the local retailers will be submitting an updated letter to the County Regional Planning Department and the City of Santa Clarita shortly.
3. The DEIR does not fully explain and document the water supply demand factors used to determine the total required supply at the time of buildout of the OVOV Plan. Additionally, the DEIR should state which sources were used to determine the factors and all of the assumptions used in the demand calculation. Determination of the expected impacts of the project is problematic without a sufficiently described methodology for anticipated water demand being available for review.
4. The court case of California Water Impact Network vs. CLWA over the water acquisition from the Buena Vista Water District/Rosedale Rio-Bravo Water District (page 3.13-15) has been resolved. On April 20, 2009, the Second District Court of Appeal issued an unpublished opinion affirming the judgment denying the mandate petition (Case No.B205622).

5. The DEIR states that the Nickel water is "readily available. The document should state that though the Nickel water does constitute a source of supply, its delivery is contingent on execution of agreements with CLWA and, through CLWA, with DWR.
6. The DEIR lists the Agency's imported supplies as consisting solely of State Water Project (SWP) water (page 3.13-51) when, in fact, there are other sources of imported water that comprise the Agency's supply portfolio. These non-SWP waters include Yuba Accord water and the water acquisition from the Buena Vista and Rosedale Rio-Bravo Water Storage Districts.
7. The information related to perchlorate remediation should be updated to reflect that the start-up and monitoring of the perchlorate treatment facility will begin in November 2009 (page 3.13-101).

CLWA appreciates the efforts of the County and the City on the plan update and the DEIR and looks forward to your responses to our comments. If you have any questions, please contact Jeff Ford, Water Resources Planner, at (661) 513-1281, or by e-mail at jford@clwa.org.

Sincerely,



Dan Masnada
General Manager

cc: Russ Behrens, McCormack, Kidman and Behrens
Steve Cole, Newhall County Water District
Robert DiPrimio, Valencia Water Company
Mauricio Guardado, Santa Clarita Water Company
David Rydman, LA County Waterworks District #36
Jason Smisko, Senior Planner, City of Santa Clarita

Adams, Marshall

From: Sadiq Ghias [admin@gpmusa.net]
Sent: Friday, October 30, 2009 4:21 PM
To: ovov; Adams, Marshall
Subject: Re: Zone changes

Follow Up Flag: Follow up
Flag Status: Flagged

BY EMAIL

ovov@planning.lacounty.gov

Mr. Mitch Glaser
Department of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

RE: Plan Amendment and Zone Changes
APNs: 3209-010-026; -030 and -031

Dear Mr. Glaser:

When purchasing the property located at 7601 Soledad Canyon Road, Acton, Ca 93510, I was aware that it had A-2, C-3 and R-R zoning. I was also aware that it had an existing CUP for use as a campground. I was also aware that, due to the zoning, I could expand the existing use. For this, I paid a premium beyond just the value of the existing campground.

My long term vision for this property included the possibility of additional uses which would improve the current use as a campground. Toward that end, I have already converted the campground from a stand-alone use to a franchise of the KOA system which has greatly improved the overall site. In the future, I see other uses which would serve both the campground and the area at large.

For example, if the road is actually widened (as has been previously planned), I may wish to convert to a more commercial use as the newer, wider road may not be conducive to the tranquility needed for a campground. Also, even if the road is not widened, I may wish to incorporate some other venture such as an artist's studio, bicycle shop, antique shop, etc.

These and other similar uses would be allowed under the existing zoning of C-3, but I don't see them as permitted used under the proposed A-2. Accordingly, I think that the existing zoning for my parcels should remain "as is" so that I can use them as I expected when I recently purchased them. Any change in the permitted use would deprive me of my expectations and would mean that I paid extra money for something I cannot use.

Thank you for your attention to this matter.

Sadiq Ghias
CalWest Realestate Investments, LP.

From: Shane Ramey [mailto:sramey21@gmail.com]
Sent: Friday, October 30, 2009 9:06 AM
To: fifthdistrict@lacbos.org
Cc: Novak, Paul; nhickling@lacbos.org; mglaser@planning.lacounty.gov; James Barrett; Joseph A.Cota
Subject: Re: Parcel Number 3211-003-014

Re: Parcel Number 3211-003-014
Project No. R2007-01226-(5)

Dear Mr. Antonovich:

Recently I received a "Legal Notice" from the Los Angeles County Department of Regional Planning regarding proposed zoning changes related to the *Santa Clarita Valley Area Plan*. According to this notice, as well as correspondence received from Mitch Glaser, the above referenced property's land use designation would be changed from HM (Hillside Management) to RL2 (Rural Land 2) and zoning designation would be changed from A-2-1 (Heavy Agricultural, 1 Acre Minimum Lot Size) to A-2-2 (Heavy Agricultural, 2 Acre Minimum Lot Size). For the record I oppose these land use and zoning designation changes. These changes would further restrict the use of the property and would result in an overall lower property value.

Thank you.

Sincerely,

Roy Ramey

--

Dr. Shane Ramey, Ph.D.

Cahill·Davis & O'Neall, LLP
L A W Y E R S

John D. Cahill
C. Stephen Davis
Cris K. O'Neall
Andrew W. Bodeau
Michael T. Lebeau

Kenneth A. Franklin
Of Counsel

NOV - 4 2009

550 South Hope Street • Suite 1650
Los Angeles, California 90071

November 2, 2009

telephone: 213-622-0600
facsimile: 213-622-9825

www.cahilldavis.com

Los Angeles Regional Planning Department
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Re: Opposition to OVOV General Land Use Plan
by 21st Century Holiness Tabernacle Church, Inc.

Gentlemen:

Our Firm represents the 21st Century Holiness Tabernacle Church, Inc. (the "Church"), which owns considerable property located within the proposed One Valley One Vision ("OVOV") General Land Use Plan (the "Plan"). Our client is deeply concerned that this proposed Plan has not taken into consideration the concerns and opinions of the owners of the property within the area covered by the Plan.

First of all, it is important to note that the Church operates exclusively for religious purposes and has been in operation in the Saugus area since 1973 and that much of its property will be adversely affected by this proposed Plan. The Church believes the proposed Plan is being thrust on the owners of the property without taking into consideration their views and concerns.

As you are aware, it is well settled public policy that before any far reaching land use plan is proposed, the jurisdictions (including all of the various agencies thereof) should consider how to improve the land uses of the area being considered, and if at all possible, to enhance the value of that property. To do this, extensive communication with and feedback from the property owners within the proposed area is essential in order to ascertain the impact and concerns of the owners. All of this should be done prior to developing and designing such a land use plan. It is fairly obvious that this did not occur by the jurisdictions involved in preparing the OVOV land use Plan. It would appear that the Plan was conceived in-house by employees of the jurisdictions without taking the pulse of the landowners who will be affected by it.

The Church is the owner of several parcels of property that have been included within the OVOV Plan without any contact from personnel of the Regional Planning Department, the City of Santa Clarita or any of the other numerous jurisdictions involved in pushing this Plan. While the

Church opposes the current Plan as it is now proposed – that is not to say that a plan may be needed for future development purposes. However, the Church believes the proposed Plan should be returned to the drawing board to ensure that the land uses proposed are fair and reasonable, and meet the existing and future needs of the area covered by the Plan with direct input from the land owners who will be affected. Only then should a land use plan be drafted and presented to the public for further comment.

It is our understanding that under the proposed OVOV Plan, the zoning on parcel APN 2853-002-010, located at 15584 Sierra Highway (which is owned by the Church) would be changed to M-1 (manufacturing with one structure). The Church has ten structures on that parcel that are used exclusively for religious purposes and if this parcel is rezoned to M-1, it will negatively affect the value of that parcel. The highest and best use of that parcel would probably be for single family residences, condos or multi residential use, but the proposed plan does not take that into consideration. If the new zoning goes into effect, does that mean the Church has to demolish nine of its ten structures? Would that be fair? Would that be reasonable? We think not.

Likewise, the owner of the property across the street from this parcel is and has been engaged for some time in a retail operation of selling stone. His property would also be rezoned to M-1, which would mean that his retail business would not conform to the new zoning, and perhaps he would have to relocate or lose his business. Is this reasonable? Is this fair?

The Church itself is located at 13136 Sierra Highway (APN 3214-025-028) and was established in the unincorporated area of Los Angeles County during the early 1970 decade when it purchased property along Sierra Highway. Since then, there have been alterations to the buildings, most with proper permits, and the Church is presently working with the Regional Planning Department to insure that the Church is in proper and legal compliance with all zoning requirements. However, if the OVOV Plan is adopted, it will create even more cloudiness on this effort and it is possible that the Church may be forced to restart this process of obtaining permits and authorizations from different governmental agencies. As a result, it would incur substantial additional costs by skyrocketing fees – not to mention further delay in resolving these issues, especially when the work was done and approved in prior years. In fact, this process is presently being held up because of the Planning Department's insistence on obtaining an oak tree permit, including a public hearing thereon, when no exterior part of the building has been altered. While the Health Department requested some improvements to the kitchen and the work was done, no exterior walls were changed - only appliances, sinks and interior wall coverings, which have no impact on any oak tree.

It would also appear that the flood plain has increased under the proposed OVOV Plan. The County's flood plain differs from that of FEMA's flood plain in that the latter encompasses the Church property.

It is our further understanding that under the proposed Plan, a Significant Ecological Area ("SEA") overlay is required, which is on top of the zoning and use restrictions. The SEA is a new application and under it, only one dwelling per parcel is permitted and that a conditional use

permit is required for that dwelling. In general, the SEA will put strong limitations on any development to the property and on any structures that are located thereon, which will result in a negative impact on the property's value.

For these and many other reasons, and for the uncertainties and confusion created on the use of the Church's property if the proposed OVOV Plan is approved, the Church opposes the adoption of the Plan as presently proposed - as being premature. The Church respectfully recommends that the Plan be sent back to the "drawing board" of the governmental entities for further study and review after extensive consultation with property owners who will be affected by the adoption of any land use plan.

Respectfully submitted.

Sincerely,

A handwritten signature in black ink that reads "John D. Cahill". The signature is written in a cursive style with a large initial "J".

John D. Cahill

JDC:bjh

cc: Pastor Tony Alamo
Sally Demoulin
Lee Ramer

October 29, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

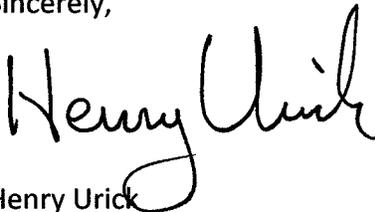
Dear Planning Commissioners:

I am requesting that you do not downgrade Sloan Canyon Road from a secondary highway to a street as proposed in the new general plan, One Valley, One Vision. I am a local land owner on the unimproved section of Sloan Canyon Road.

There are few east-west connectors in the northern Santa Clarita Valley. It is important retain Sloan Canyon Road as a future thoroughfare. A future elementary school is proposed on this unimproved section of Sloan Canyon Road, and the school cannot be built without paving Sloan Canyon Road.

Retaining the offset of Bridge & Thoroughfare fees is urgently needed to help finance the building and paving of Sloan Canyon Road, North of Quail Valley Road to Mandolin Canyon Road for fire safety. Please make no change to Sloan Canyon in the county's Master Plan of Highways. It jeopardizes our safety and a future school for our community.

Sincerely,



Henry Urick
28631 Sloan Canyon Road
Castaic, CA 91384

NOV - 2 2009

cc: with enclosures

Steve Berger, LA County Public Works
Paul Novak, Deputy to Supervisor Antonovich
Steve Teeman, President, Castaic Town Council
Rosalind Wayman, Senior Deputy to Supervisor Antonovich

September 25, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

Dear Planning Commissioners:

I am requesting that you do not downgrade Sloan Canyon Road from a secondary highway to a street as proposed in the new general plan, One Valley, One Vision. I am a local land owner on the unimproved section of Sloan Canyon Road,

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Please make no change to Sloan Canyon in the county's Master Plan of Highways. It jeopardizes our safety and a future school for our community.

Sincerely,

A handwritten signature in black ink, appearing to read "Allen B. Russell, Jr.", written in a cursive style.

Allen B. Russell, Jr.
28711 Sloan Canyon Road
Castaic, CA 91384

October 29, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

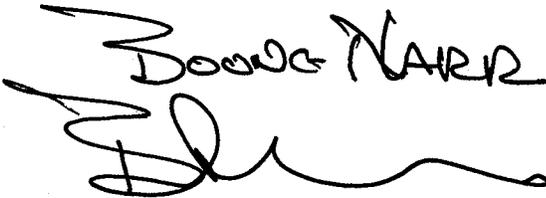
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Sincerely,

A handwritten signature in black ink, appearing to read "Doug Nader". The signature is stylized with a large, sweeping initial "D" and a long, horizontal flourish at the end.

Sloan Canyon Road

Castaic, CA 91384

28531 - Sloan Canyon
28553 - Sloan Canyon
31550 - Oakhorn Ave

October 29, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

Dear Planning Commissioners:

I am requesting that you do not downgrade Sloan Canyon Road from a secondary highway to a street as proposed in the new general plan, One Valley, One Vision. I am a local land owner on the unimproved section of Sloan Canyon Road.

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Sincerely,

A handwritten signature in cursive script that reads "Karen Allard". The signature is written in black ink and is positioned above the typed name.

Karen Allard

28701 Sloan Canyon Road
Castaic, CA 91384

September 27, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

Dear Planning Commissioners:

I am requesting that you do not downgrade Sloan Canyon Road from a secondary highway to a street as proposed in the new general plan, One Valley, One Vision. I am a local land owner on the unimproved section of Sloan Canyon Road,

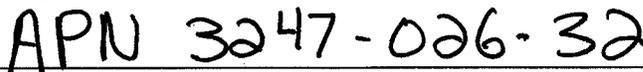
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Please make no change to Sloan Canyon in the county's Master Plan of Highways. It jeopardizes our safety and a future school for our community.

Sincerely,



Name



Address

Castaic, CA 91384

October 5, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

Dear Planning Commissioners:

I am requesting that you do not downgrade Sloan Canyon Road from a secondary highway to a street as proposed in the new general plan, One Valley, One Vision. I am a local land owner on the unimproved section of Sloan Canyon Road,

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Please make no change to Sloan Canyon in the county's Master Plan of Highways. It jeopardizes our safety and a future school for our community.

Sincerely,



Name VERNON C. SPRANKLE

28393 BORGONA MISSION VILLEJO CA

Address SLOAN CYN PROPERTY 3247 - 024 - 055 AND 056

Castaic, CA 91384

October 5, 2009

Los Angeles County Regional Planning Commission
320 West Temple Street
Los Angeles, CA 90012

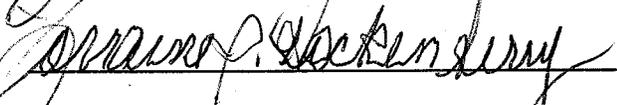
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Please make no change to Sloan Canyon in the county's Master Plan of Highways. It jeopardizes our safety and a future school for our community.

Sincerely,



Name
APN 3247 54 2706

Address

Castaic, CA 91384

Eugene Lombardi
4322 Manchester Ave.,
Olivenhain, Ca. 92024
(760) 753-6809
ETLombardi@cox.net

October 8, 2009

Los Angeles County Regional Planning Commission□
320 West Temple Street□
Los Angeles, CA 90012

Subject: 2009 OVOV proposed change of Limited Secondary Highway (Sloan)

Dear Planning Commissioners:

I am a property owner of numerous parcels of land within the Castaic Community of the Santa Clarita Valley. APN's 3247-068-002, 003, 3247-032-025, 026 and 3247-053-004.

As with any well-planned community, areawide roadway circulation is the key and heart of a community, a village, a township or a region. In essence, this is a similar statement to what is defined in the OVOV packet and I fully agree with its intent and meaning. Planning wise it is the roadmap to our future and I was extremely proud of LA County's planners to have seen with foresight years ago in identifying an areawide roadway circulation that entailed Sloan Canyon Roadway to be a Limited Secondary Highway in their Master highway plan.

The community of Castaic in general and as a whole, has numerous constraints all of which make it difficult and different than the norm, whereby in overall view there is only one major roadway artery within the Castaic Community area that services circulation with a north-south routing, that being the I-5 corridor. While the Old Road is a separate roadway, its function is merely limited to the same north-south routing along side of I-5, all within the same area. Neither provide adequate parallel function to the western or eastern portions of the community.

The importance of the Sloan Canyon roadway as currently defined on the County's Master Plan is that it's initial design and intent had purpose and very good purpose may I add. Once built, it will bring areawide roadway circulation to the western portion of the Castaic Community that would provide a regional benefit to all in terms of accessibility to the township of Castaic, Castaic lake, the public library and sports complex in addition to vital emergency services as well, without the western region of Castaic being restrained to commute easterly down Hasley Canyon road to either I-5 or the Old Road. In essence, the future Sloan Canyon road could be described as the westerly alternative major artery that also routes a north-south alignment to benefit all within a community which will then be a product of good foresight planning for our future.

By downgrading this roadway now, as reflected in the proposed 2009 OVOV, only reverts back to a position of lack in planning for the future. Conservatively speaking, if the roadway was in usage today, the mass number of daily traffic trips might not be great but the future is the concern. However, I believe if it were in use today, it's usage would be greater than expected, as it would certainly relieve the traffic load that burdens the Old Road for those commuting from the township south to Hillcrest Parkway, Val Verde or the Commerce center and visa-versa.

While the above focuses on both the future and as an areawide roadway circulation for convenience or emergency means, downgrading this roadway is also basically limiting the future growth within this western region. If that is the ultimate goal, there are other ways in which to limit growth but even without a great amount of growth, this Secondary Limited Highway in Sloan is vital to the community in general and would be an asset to the Santa Clarita Valley and County once completed.

Please make no change to Sloan Canyon road in the County's Master Plan of Highways and keep this as a Limited Secondary highway. The planners of the past had good foresight and that is why it was initially placed on the Master Plan in the first place.

As a side note, today because Sloan Canyon roadway is already identified as a Limited Secondary Highway places emphasis on which of the canyon(s) roadway is intended to be utilized for areawide circulation (Romero vs. Sloan). Once removed, if in the future the County wants to revert back to a Limited Highway in this western region, I would anticipant heavy debate between residential ownership of these two canyons. The NIMB scenario. This potential can be easily avoided by making no change.

Respectfully,
Eugene Lombardi

cc:

Mitch Glaser, AICP Supervising Regional Planner (countywide studies section)
Paul Novak, Deputy to Supervisor Antonovich
Rosalind Wayman, Senior Deputy
Steve Berger, LA County Public Works
Steve Teeman, President, Castaic Town Council

**Castaic Area Town Council
P. O. Box 325
Castaic, CA 91384**

October 22, 2009

County of Los Angeles
Department of Regional Planning
Regional Planning Commissioners
320 West Temple Street
Los Angeles, CA 90012

Re: OVOV and Castaic CSD

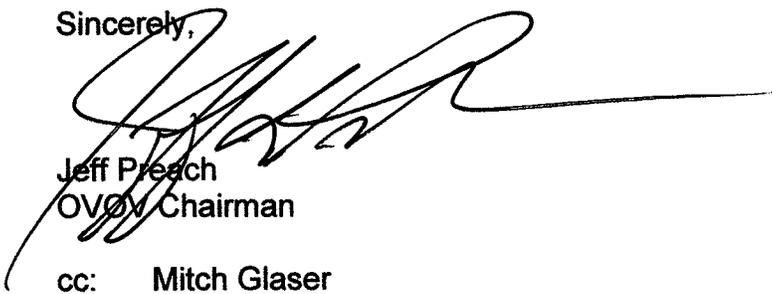
Dear Commissioners,

At our last scheduled public meeting (October 21, 2009) the Castaic Area Town Council directed me to formally request a clarification as to the new OVOV and the Castaic CSD. Does CSD override the new OVOV? For example clustering, setbacks from property line, signage, etc.

This request is formal and we are asking for a written response confirming that OVOV subordinates to the CSD in all land use and zoning matters in Castaic, if it does not, please list those area where OVOV will supersede. The CATC would like to have a response prior to our agenda setting meeting on November 3rd.

Please call me at (661) 295-6800 or my cell phone (661) 993-7999 with any questions or clarification.

Sincerely,



Jeff Preach
OVOV Chairman

cc: Mitch Glaser
Paul Novak
Rosalind Wayman
Castaic Area Town Council

OCT 26 2009



Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead



Jon Sanabria
Acting Director of Planning

October 29, 2009

Jeff Preach
Castaic Area Town Council
P.O. Box 325
Castaic, CA 91384

RE: SANTA CLARITA VALLEY AREA PLAN UPDATE

Dear Mr. Preach:

I am in receipt of your letter, dated October 22, 2009, regarding the update of the Santa Clarita Valley Area Plan. The letter requests clarification regarding the relationship between the Santa Clarita Valley Area Plan (SCVAP) and the Castaic Area Community Standards District (CSD).

The SCVAP, adopted by the Board of Supervisors in 1984 and subsequently amended, is a component of the Countywide General Plan. The SCVAP establishes general land use policy for all unincorporated areas of the Santa Clarita Valley, including Castaic, and contains land use designations, goals, policies, and implementation actions. The CSD, adopted by the Board of Supervisors in 2004, is a component of the Countywide Zoning Ordinance. The CSD establishes specific, detailed development standards for Castaic (setbacks, signage, etc.). The SCVAP and CSD are complementary documents that guide land use decisions in Castaic, along with all other relevant components of the Countywide General Plan and the Countywide Zoning Ordinance.

Pursuant to State Law, all components of the Countywide Zoning Ordinance, including the CSD, must be consistent with all components of the Countywide General Plan, including the SCVAP. If conflicting provisions exist, the SCVAP prevails. However, the Draft SCVAP Update has been developed to be consistent with the CSD, and staff is not aware of any conflicting provisions. The Draft SCVAP Update does not include specific development standards for Castaic, as those are provided in the CSD. The Draft SCVAP Update makes several references to the CSD and its importance to the residents of Castaic.

The CSD restricts clustering in some of Castaic's rural areas, but not all of them. The CSD's Hasley Canyon and Violin Canyon Sub-Areas (see attached maps) prohibit clustering and require a two-acre minimum lot size for any new land division. The Draft SCVAP Update proposes to expand these restrictions to all unincorporated rural areas of the Santa Clarita Valley, including all of Castaic's rural areas. In the proposed Rural

Jeff Preach
October 29, 2009
Page 2 of 2

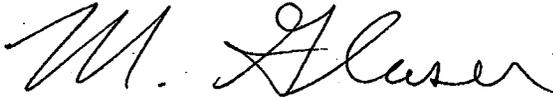
Land 1 (RL1) land use designation, clustering will be prohibited and a one-acre minimum lot size will be required. In the proposed Rural Land 2 (RL2) land use designation, clustering will be prohibited and a two-acre minimum lot size will be required. In the proposed Rural Land 5 (RL5), Rural Land 10 (RL10), and Rural Land 20 (RL20) land use designations, clustering will be permitted, but a two-acre minimum lot size will be required. These Draft SCVAP Update provisions are consistent with existing CSD provisions regarding clustering in the Hasley Canyon and Violin Canyon Sub-Areas, but would also apply to rural areas outside of these Sub-Areas.

We appreciate the Town Council's ongoing interest in the Santa Clarita Valley Area Plan Update, a component of the One Valley One Vision (OVOV) effort. We welcome additional comments from the Town Council, and staff is willing to attend future meetings of the Town Council or its OVOV Committee in order to answer questions or to discuss concerns. If you have any additional questions, please contact me at mglaser@planning.lacounty.gov or (213) 974-6476 between 7:30 a.m. and 5:30 p.m. Monday through Thursday. Our offices are closed on Fridays.

Copies of your letter, as well as this response, will be provided to the Regional Planning Commission (RPC), which is currently considering the Santa Clarita Valley Area Plan Update. The next RPC hearing is scheduled for Monday, November 23, 2009, at 9:00 a.m. at the Hall of Records, 320 W. Temple Street, Los Angeles, CA 90012.

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Jon Sanabria, Acting Director of Planning

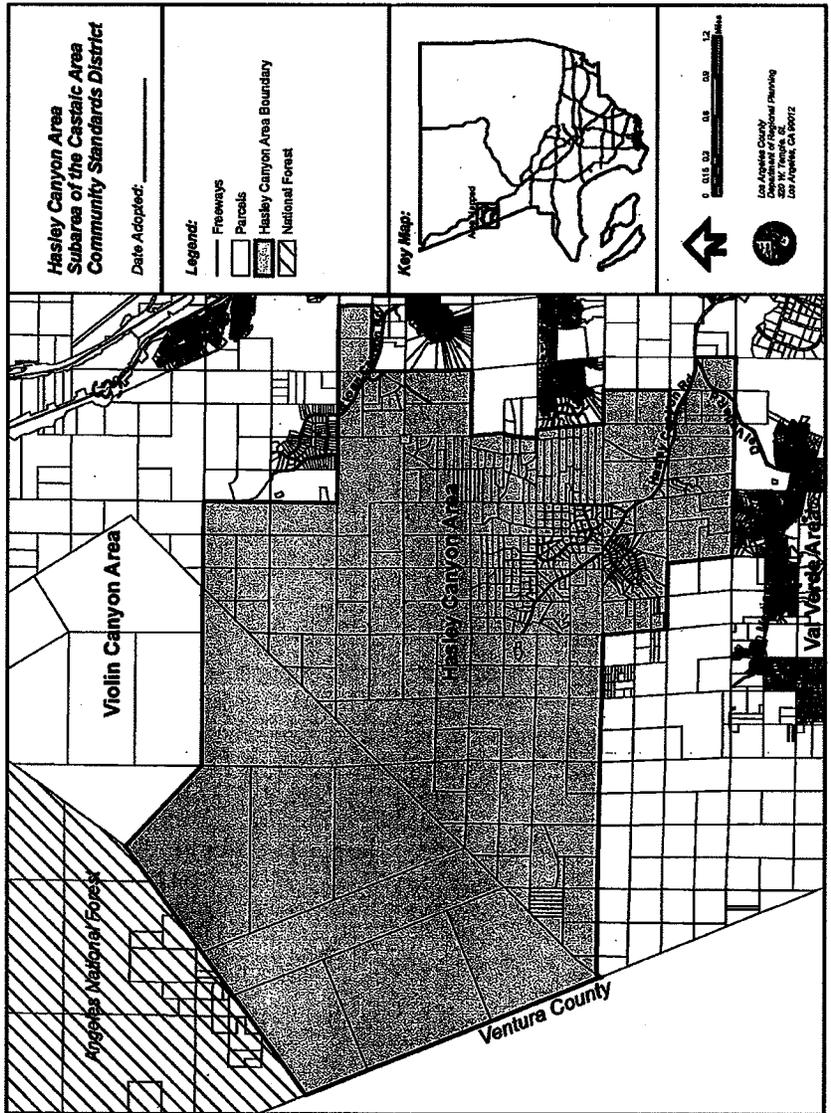


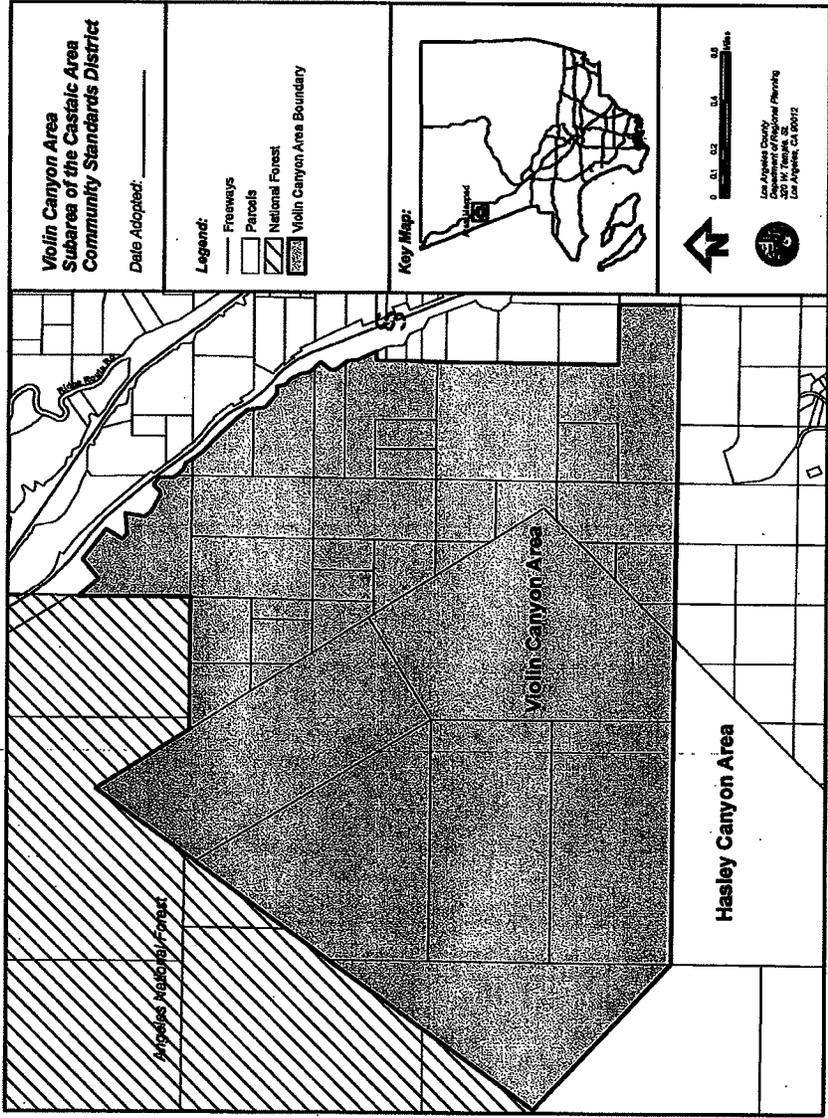
Mitch Glaser, AICP
Supervising Regional Planner
Countywide Studies Section

MWG:mwg

Attachments

- C: Rose Hamilton, AICP, Acting Deputy Director, Advance Planning Division
- Paul Novak, AICP, Office of Supervisor Michael D. Antonovich
- Rosalind Wayman, Office of Supervisor Michael D. Antonovich
- Jason Smisko, Senior Planner, City of Santa Clarita





Roy Ramey
Roy Ramey Irrevocable Trust
33297 Wagon Wheel Rd.
Agua Dulce, CA 91390

October 29th, 2009

Michael D. Antonovich
500 West Temple Street, Room 869
Los Angeles, CA 90012

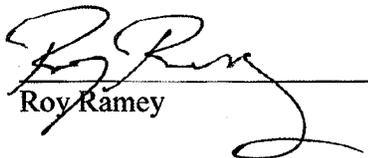
Re: Parcel Number 3211-003-014
Project No. R2007-01226-(5)

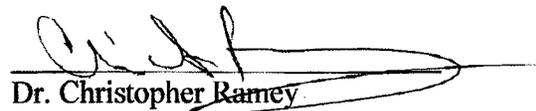
Dear Mr. Antonovich:

Recently I received a "Legal Notice" from the Los Angeles County Department of Regional Planning regarding proposed zoning changes related to the *Santa Clarita Valley Area Plan*. According to this notice, as well as correspondence received from Mitch Glaser, the above referenced property's land use designation would be changed from HM (Hillside Management) to RL2 (Rural Land 2) and zoning designation would be changed from A-2-1 (Heavy Agricultural, 1 Acre Minimum Lot Size) to A-2-2 (Heavy Agricultural, 2 Acre Minimum Lot Size). For the record I oppose these land use and zoning designation changes. These changes would further restrict the use of the property and would result in an overall lower property value.

Thank you.

Sincerely,


Roy Ramey


Dr. Christopher Ramey

Cc. Paul Novak
Norman Hickling
Mitch Glaser
James Barrett
Joe Coda

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Roy Ramey Irrevocable Trust
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October 29th, 2009

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Los Angeles, CA 90012

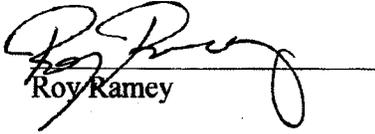
Re: Parcel Number 3214-039-026
Project No. R2007-01226-(5)

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Thank you.

Sincerely,


Roy Ramey


Dr. Christopher Ramey

Cc. Paul Novak
Norman Hickling
Mitch Glaser
James Barrett
Joe Coda

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October 29th, 2009

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Los Angeles, CA 90012

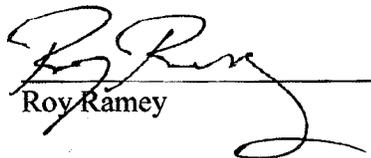
Re: Parcel Number 3211-003-014
Project No. R2007-01226-(5)

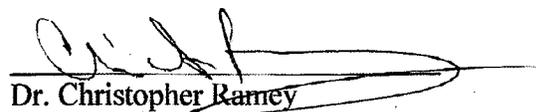
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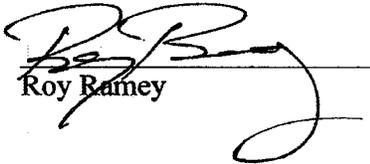
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Project No. R2007-01226-(5)

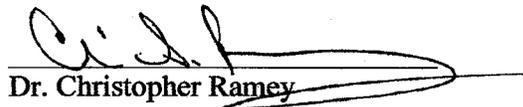
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Thank you.

Sincerely,


Roy Ramey


Dr. Christopher Ramey

Cc. Paul Novak
Norman Hickling
Mitch Glaser
James Barrett
Joe Coda



STATE OF CALIFORNIA
 GOVERNOR'S OFFICE of PLANNING AND RESEARCH
 STATE CLEARINGHOUSE AND PLANNING UNIT



ARNOLD SCHWARZENEGGER
 GOVERNOR

CYNTHIA BRYANT
 DIRECTOR

November 3, 2009

Mitch Glaser
 Los Angeles County
 320 West Temple Street, Room 1354
 Los Angeles, CA 90012

Subject: One Valley One Vision - County Project No. R2007-01226
 SCH#: 2008071119

Dear Mitch Glaser:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 2, 2009, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

for Scott Morgan
 Acting Director, State Clearinghouse

Enclosures
 cc: Resources Agency

NOV - 9 2009

**Document Details Report
State Clearinghouse Data Base**

SCH# 2008071119
Project Title One Valley One Vision - County Project No. R2007-01226
Lead Agency Los Angeles County

Type EIR Draft EIR
Description NOTE: Review Per Lead

One Valley One Vision (OVOV) is a joint effort between the County of Los Angeles, City of Santa Clarita, and Santa Clarita Valley residents and businesses to create a single vision and set of guidelines for the future growth of the Santa Clarita Valley and the preservation of natural resources. Realizing that development within both jurisdictions can have regional implications, the County and City have jointly endeavored to prepare planning policies and guidelines to guide future development within the Santa Clarita Valley. The result of this work effort will require the adaption of 2 separate documents. The County will adopt a new General Plan and EIR. This EIR has been prepared to evaluate the potential impacts of the policies of the County's Area Plan.

Lead Agency Contact

Name Mitch Glaser
Agency Los Angeles County
Phone 213-974-6476 **Fax**
email
Address 320 West Temple Street, Room 1354
City Los Angeles **State** CA **Zip** 90012

Project Location

County Los Angeles
City Santa Clarita
Region
Lat / Long
Cross Streets Various
Parcel No.
Township

Range **Section** **Base**

Proximity to:

Highways 5, 14, 126
Airports Palmdale
Railways
Waterways Santa Clarita River
Schools Various
Land Use Various

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Other Issues

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 09/03/2009 **Start of Review** 09/03/2009 **End of Review** 11/02/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

Clean
11-2-09
e

**RECEIVED**

SEP 15 2009

STATE CLEARING HOUSE

September 10, 2009

Mr. Mitch Glaser, Planner

LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING

320 West Temple Street, Room 1354
Los Angeles, CA 90012

Re: SCH#2008071119: CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the One Valley-One Vision Project; Los Angeles County Department of Regional Planning and the City of Santa Clarita; Los Angeles County, California

Dear Mr. Glaser:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.. The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural resources were not identified within one-half mile of the APEs. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental study.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11..

Consultation with tribes and interested Native American tribes and individuals, as consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f])*et se*, and NAGPRA (25 U.S.C. 3001-3013), as appropriate..

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a

project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

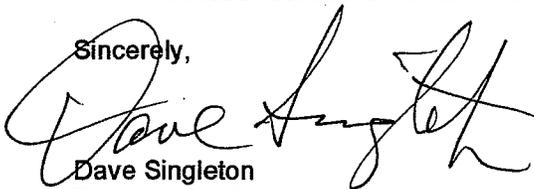
CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

Again, Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,



Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME

ARNOLD SCHWARZENEGGER, Governor
DONALD KOCH, Director

South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201
<http://www.dfg.ca.gov>



November 5, 2009

NOV - 9 2009

Mr. Mitch Glaser
Los Angeles County
320 West Temple Street, Room 1354
Los Angeles, California 90012
Fax #: (213) 626-0434

**Subject: Draft Environmental Impact Report for the One Valley, One Vision
General Plan EIR, Los Angeles County**

Dear Mr. Glaser:

The Department of Fish and Game (Department) has reviewed the above-referenced Draft Environmental Impact Report (DEIR) for the One Valley, One Vision (OVOV) General Plan relative to impacts to biological resources. The Department understands the OVOV is a joint effort between the County of Los Angeles (County), City of Santa Clarita (City), and Santa Clarita Valley (Valley) residents and businesses to create a single vision and set of guidelines for the future growth of the Valley and the preservation of natural resources. The project will be a comprehensive update of its Area Plan document for the buildout of the entire Santa Clarita Valley Planning Area. The Planning Area includes the City of Santa Clarita and its four communities Canyon Country, Newhall, Saugus, and Valencia and the County communities of Stevenson Ranch, Castaic, Val Verde, Agua Dulce, and the future Newhall Ranch. The Department supports the goal of the County and City working together to develop one seamless plan in order to address current and future needs for the public and for the conservation of the valuable natural resources within the planning area. The Department also understands that the process will require the adoption of two separate documents. The City will adopt a new General Plan, while the County will adopt a new Area Wide Plan to replace the Santa Clarita Valley Area Wide Plan.

The California Wildlife Action Plan, a recent Department guidance document, identified the following stressors affecting wildlife and habitats within the project area: 1) growth and development; 2) water management conflicts and degradation of aquatic ecosystems; 3) invasive species; 4) altered fire regimes; and 5) recreational pressures. The Department looks forward to working with the OVOV planning participants to minimize impacts to fish and wildlife resources with a focus on these stressors.

The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386) and pursuant to our authority as a Responsible Agency under the California Environmental Quality Act (CEQA), Section 15381 over those aspects of the proposed project that come under the purview of Fish and Game Code Section 1600 et seq. regarding impacts to streams and lakes.

The Department's general concerns regarding potential impacts to biological resources from project implementation are direct and indirect impacts to the Santa Clara River watershed and the associated vegetation communities and wildlife. Special attention should be given to the

Conserving California's Wildlife Since 1870

South Coast Missing Linkages Project, specifically the San Gabriel Mountains to Castaic Range is critical for preserving ecosystem processes in the South Coast Ecoregion. This and other linkages are absolutely critical in establishing a protected area network for the South Coast Ecoregion. The Department recommends the County adopt Alternative 2, Preservation Corridor Alternative, because it is the Environmentally Superior Alternative and would support the South Coast Missing Linkages wildlife corridor and the proposed Sensitive Ecological Areas (SEAs) by proposing a density reduction. The number of dwelling units (du) within the Preservation Corridor would potentially decrease from 2,761 du under the proposed Area Plan to 597 du on 5,967.50 acres under Alternative 2. Impacts on land use would be less than that of the proposed Area Plan.

The linkage is extremely diverse, supporting 20 distinct natural communities. Habitat types in the linkage include Coastal sage scrub, chaparral, coast live oak woodlands in canyons, and high quality riparian scrub and woodlands at lower elevations. In the eastern portion of the linkage there is a shift to a xeric landscape characterized by desert scrub, with scattered juniper and Joshua tree woodlands. Among the sensitive natural communities that occur are alluvial fan sage scrub, southern cottonwood willow riparian forest, southern riparian scrub, southern sycamore alder riparian, freshwater marsh, coast live oak riparian forest, vernal pool, mainland holly-leaved cherry woodland, valley needlegrass grassland, and coastal sage scrub. These habitats are among the rarest and most sensitive ecosystem types in the United States. Conservation of parcels within the linkage will contribute to the preservation of these communities. The Department recommends that the areas within the linkage be considered as high priority open space within this planning document for the City and County.

While each of the vegetation communities is important in their own right, it is also important that the natural hydrology of the linkage remain intact. The Santa Clara River is a prominent feature, draining 3,108 km² (1,200 mi²) of the San Gabriel, Castaic, Santa Susana, and Sierra Madre mountains and cutting transversely through the linkage along Soledad Canyon. As one of the last free flowing natural riparian systems left in southern California, the Santa Clara River supports a diversity of aquatic, semi-aquatic, and terrestrial organisms. The essential habitats in the upper watershed and headwater streams in the planning area are largely intact, providing breeding sites, traveling routes, and other resources for wildlife; natural flood control; recharge of groundwater basins; nutrient cycling; and helping to sustain the river to its estuary in Ventura County. Many species that depend on low-elevation habitats are now federally and or state-listed as endangered, threatened, or sensitive.

Riparian zones and associated buffers rank highly and many of the tributary drainages are in an undisturbed state. However, some parcels within the flood plain of the Santa Clara River have been impacted by development and would therefore benefit from conservation and restoration. This restoration would have an added benefit of expanding habitat for several special status species, including the unarmored threespined stickleback (*Gasterosteus aculeatus williamsoni*), a federal and state endangered species and state Fully Protected species. Two other native fish are also present in the planning area, the federally threatened and state species of special concern Santa Ana sucker (*Catostomus santaanae*) and the state species of special concern arroyo chub (*Gila orcutti*) also occur here.

The Department recognizes the opportunities for better communication and planning between the City, the County, and your constituents as a result of this project. The Department concurs with the County that key resource conservation open space areas need to remain a high priority for conservation acquisition. The Department will continue to work with County, City, and Conservation Organizations to strategically identify open space lands that facilitate wildlife

movements, identify funding opportunities, and negotiate with willing sellers to acquire these lands. The Department supports the conservation sensitive policies proposed in this DEIR, but has concern with allowing an increase of 9,417 acres of urban residential area proposed in the new plan compared to the existing County Area Plan, while reducing rural land by 10,224 acres. The direct and indirect impacts from this proposed increased level of development on top of an already stressed environmental system of air, water, and habitat degradation will have significant negative environmental impacts on the upper Santa Clara River watershed.

As stated in the DEIR, "Under CEQA, a public agency, other than a lead agency, that has discretionary approval power over the proposed project is considered a "responsible agency" (State CEQA Guidelines Section 15381). No public agency, other than the County of Los Angeles, has discretionary approval power over the proposed project; however, if the County approves this project, subsequent implementation of various project components could require discretionary approval authority from responsible agencies. Trustee agencies have jurisdiction over certain resources held in trust for the people of California but do not have a legal authority over approving or carrying out projects (e.g., California Department of Fish and Game)." Projects proposed under the new Area Wide Plan that will be adopted by the County will need to consider the following information during the project specific CEQA process.

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats (Attachment 1).
 - a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities.
 - b. A complete, recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.
 - c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380).
 - d. The Department's Biogeographic Data Branch in Sacramento should be contacted at (916) 322-2493 (www.dfg.ca.gov/biogeodata) to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEA) or Environmentally Sensitive Habitats (ESH) or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.
2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

- a. CEQA Guidelines, Section 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.
 - b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas are of concern to the Department and should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic, outdoor artificial lighting, noise and vibration.
 - c. A cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.
 - d. Impacts to migratory wildlife affected by the project should be fully evaluated including proposals to remove/disturb native and ornamental landscaping and other nesting habitat for native birds. Impact evaluation may also include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.
 - e. Impacts to all habitats from City or County required Fuel Modification Zones (FMZ). Areas slated as mitigation for loss of habitat shall not occur within the FMZ.
 - f. Proposed project activities (including disturbances to vegetation) should take place outside of the breeding bird season (February 1- September 1) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot avoid the breeding bird season, nest surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends a minimum 500-foot buffer for all active raptor nests).
3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.
- a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed with off-site mitigation locations clearly identified.

- b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).
- c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. A California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

- a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.
- b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The Department opposes the elimination of watercourses (including concrete channels) and/or the canalization of natural and manmade drainages or conversion to subsurface drains. All wetlands and watercourses, whether intermittent, ephemeral, or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations. The Department recommends a minimum natural buffer of 100 feet from the outside edge of the riparian zone on each side of drainage.

- a. The Department requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources. The Department's issuance of a SAA may be a project that is subject to CEQA. To facilitate our issuance of the Agreement when CEQA applies, the Department as a responsible agency under CEQA may consider the local jurisdiction's (Lead Agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the Agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

Mr. Mitch Glaser
November 5, 2009
Page 6 of 6

Thank you for this opportunity to provide comment. Please contact Mr. Dan Blankenship, Staff Environmental Scientist, at (661) 259-3750 if you should have any questions and for further coordination on the proposed project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edmund Pert', written in a cursive style.

Edmund Pert
Regional Manager
South Coast Region

cc: Helen Birss, Santa Barbara
Dan Blankenship, Valencia
Betty Courtney, Santa Clarita
Scott Harris, Pasadena
State Clearinghouse, Sacramento

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:

- a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
- b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.

3. Botanical consultants should possess the following qualifications:

- a. Experience conducting floristic field surveys;
- b. Knowledge of plant taxonomy and plant community ecology;
- c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
- d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
- e. Experience with analyzing impacts of development on native plant species and communities.

4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:

- a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

When rare, threatened, or endangered plants are known to occur in the type(s) of habitat present in the project

area, nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.

c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.

e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:

- a. Project description, including a detailed map of the project location and study area.
- b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
- c. Detailed description of survey methodology.
- d. Dates of field surveys and total person-hours spent on field surveys.
- e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
- f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
- g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
- h. Recommended measures to avoid impacts.
- i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
- j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
- k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
- l. Name of field investigator(s).
- m. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

**Sensitivity of Top Priority Rare Natural
Communities in Southern California**

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

- S1.# Fewer than 6 known locations and/or on fewer than 2,000 acres of habitat remaining.
- S2.# Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.
- S3.# Occurs in 21-100-known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

- S1.1 = very threatened
- S2.2 = threatened
- S3.3 = no current threats known

Sensitivity Rankings (February 1992)

<u>Rank</u>	<u>Community Name</u>
S1.1	Mojave Riparian Forest Sonoran Cottonwood Willow Riparian Mesquite Bosque Elephant Tree Woodland Crucifixion Thorn Woodland Allthorn Woodland Arizonan Woodland Southern California Walnut Forest Mainland Cherry Forest Southern Bishop Pine Forest Torrey Pine Forest Desert Mountain White Fir Forest Southern Dune Scrub Southern Coastal Bluff Scrub Maritime Succulent Scrub Riversidean Alluvial Fan Sage Scrub Southern Maritime Chaparral Valley Needlegrass Grassland Great Basin Grassland Mojave Desert Grassland Pebble Plains Southern Sedge Bog Cismontane Alkali Marsh

- S1.2 Southern Foredunes
Mono Pumice Flat
Southern Interior Basalt Flow Vernal Pool
- S2.1 Venturan Coastal Sage Scrub
Diegan Coastal Sage Scrub
Riversidean Upland Coastal Sage Scrub
Riversidean Desert Sage Scrub
Sagebrush Steppe
Desert Sink Scrub
Mafic Southern Mixed Chaparral
San Diego Mesa Hardpan Vernal Pool
San Diego Mesa Claypan Vernal Pool
Alkali Meadow
Southern Coastal Salt Marsh
Coastal Brackish Marsh
Transmontane Alkali Marsh
Coastal and Valley Freshwater Marsh
Southern Arroyo Willow Riparian Forest
Southern Willow Scrub
Modoc-Great Basin Cottonwood Willow Riparian
Modoc-Great Basin Riparian Scrub
Mojave Desert Wash Scrub
Engelmann Oak Woodland
Open Engelmann Oak Woodland
Closed Engelmann Oak Woodland
Island Oak Woodland
California Walnut Woodland
Island Ironwood Forest
Island Cherry Forest
Southern Interior Cypress Forest
Bigcone Spruce-Canyon Oak Forest
- S2.2 Active Coastal Dunes
Active Desert Dunes
Stabilized and Partially Stabilized Desert Dunes
Stabilized and Partially Stabilized Desert Sandfield
Mojave Mixed Steppe
Transmontane Freshwater Marsh
Coulter Pine Forest
Southern California Fellfield
White Mountains Fellfield
- S2.3 Bristlecone Pine Forest
Limber Pine Forest