

E.I.S./E.I.R. SCOPING

SDG&E's 500Kv and 230Kv Transmission-Line Proposal

Fire Hazard Issues

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Fire hazard and other E.I.S./E.I.R. issues for SDG&E's 500Kv and 230 Kv transmission-line proposal.

These notes cover the proposed corridor from Grapevine Canyon to the valley at Santa Ysabel. The issues & information may also apply to other segments of the proposed corridor.

General introduction:

I imagine that the people doing the environmental analysis, people from out of the area, already know how critical the fire hazard is in the San Diego backcountry. The fire hazard is present for much of the year, can become *high* and *critical* easily, and our official, fire season lasts all year round, year after year after year. In northern environments, the green plants in the forests don't burn because of their high moisture content and, consequently, northern forest fires are, generally, safer than fires in Southern California. In the San Diego backcountry, all the green plants and woody shrubs burn because of their low water content (yet a high oil content), and some of them burn explosively. Fire runs through this landscape fast and provides little time to escape when and if escape is necessary.

What impression am I trying to convey in saying these things? This: fire is a serious concern in this area, and the full impact that the fire hazard would have on a powerline of this kind, and the increased fire-hazard and safety issues which the powerline may contribute to the backcountry, need to be fully explored. In addition to general fire issues is the matter of safety for firefighters, which I mention in the many notes below.

My background: U.S. Forest Service, Pacific Northwest Region, firefighter. 1975 to 1983. Olympic National Forest, Rogue River National Forest, Wallowa-Whitman National Forest. Fire Crews in those years also did prescribed burning of clearcut units of National Forest timber. Working very closely to the logging industry, I saw immense environmental destruction due to roadbuilding, clearcutting, log trucking, and logging fires in the forests of the Northwest. Medical discharge in 1983 for torn, hip ligaments. I moved to the San Diego backcountry in 1994. For several years studied the fire ecology, fire history, and natural history of the entire area. I've

written news and human-interest articles for the Julian News (one of the backcountry's newspapers) for six years now. The majority of these articles have dealt with the fire hazard, firefighting, fire safety, fire ecology, and prevention.

First Issue to be Discussed:

SDG&E's Preliminary Environmental Analysis, submitted with their August 4th re-application: Volume I, on page 2-13, at the bottom:

"1. Reduced vulnerability to fires: The route of the proposed Sunrise Project is predominately along separate corridors, separated by many miles from the existing Southwest Powerlink (SWPL). Only a short segment, approximately 4 miles, parallels the existing SWPL, and this segment is in the desert region which is not vulnerable to brush fires. SWPL has a history of multiple outages. The majority of outages of the existing SWPL line has been due to brush fires which have occurred west of Mountain Springs Grade. The Proposed project avoids this area, and the probability of fires occurring simultaneously in two diverse areas is much less. On July 26th of this year, SDG&E's two major transmission paths were threatened by fires. If either of these fires had gotten out of control SDG&E would have had to initiate load curtailment to avoid a system-wide blackout. The Sunrise Project would provide a third independent path to serve SDG&E's grid reliability concerns in the event of such threats."

And:

Concerning the Notice of Preparation/Notice of Public Scoping Meetings for an EIR/EIS, sent out by Aspen Environmental Group: Page 3, section D. Project Description: "In addition, SDG&E has presented the following eight objectives in its PEA: 1. Ensure SDG&E's transmission system [go to end of paragraph] . . . Avoid siting the Proposed Project parallel to SWPL for long distances especially avoiding areas with fire history or fire potential."

A sample of the recent fire *history* for the area I cover is below. A more specific answer about history is necessary for the Mesa Grande area (see page 14). Notes on the fire *potential* will also appear in these essays. Also, the July 26th fire

mentioned in SDG&E's above comment was the Horse Fire, which burned 16,455 acres in the Hauser and Pine Creek Wilderness Areas near the U.S./Mexico border. SDG&E's comment about the fire possibly getting out of control indicates some lack of understanding. Wildland fires are always "uncontrolled" until they are designated "contained" and then "controlled." The Horse Fire was spreading until its flanks were contained. Once contained, critical hotspots were cooled and, at a certain point in the cooling and mopping up along the perimeter, the fire was considered "controlled." A fire isn't considered controlled until it's safe to say so, yet there are times when flare ups can push the fires's status back to "uncontrolled."

I think a more important point to consider is why SDG&E was afraid that the Horse Fire would damage their lines if the fire were to spread farther south. Haven't they maintained an adequate fuel break along the SWPL? This should be investigated.



Another issue: how reliable is SDG&E's statement about the fire threat to the SWPL? Is there, indeed, a threat? The representative for the California Native Plants Society, at the September 13th Hearing in Ramona, found the company's statements in its PEA, concerning impacts to sensitive plant species, "irresponsible." How many more statements in the PEA are irresponsible?

The company wants to build another powerline for various reasons, and they cite an added benefit about the new line: it would help reduce over-all system "vulnerability to fire." When reading the company's statements about fire, I find something: an interpretation. I find there are other interpretations that can be made from the actual data on fire in the overall region. I'll mention more on this toward the end.

A question: Where in the backcountry is there no potential for a fire ? The minute you leave the desert, the fire potential increases astronomically, although in some areas the potential is less than in others because a fire recently burned there. Then again, chaparral grows and, in time, the potential for fire increases all over again.



Three of the areas along the proposed Sunrise Powerlink (SRPL) route, the Central-East Substation, Mesa Grande, and Santa Ysabel, lie within an overall area which has a significant fire history. There has been a great deal of recent, fire history except for the Mesa Grande area, which hasn't burned in almost half a century.

1. Huge Fires around Ramona, summer of 1994 (1995?). 1000s of acres burned. Cause: arson.

2. La Jolla Fire, early October 1999, 8000 acres, burned the entire southern flank of Palomar Mountain all the way to Lake Henshaw. Cause: unattended brush pile not mopped up. One firefighter fatality occurred on this fire.

3. Angel's Landing Fire, mid-july, 2002, 50 acres?, burned private land and property (a home and trailer) just north of Julian. The fire started next to the highway below the property, possibly by a cigarette or hot object tossed from a car.

4. Pines Fire, late July 2002, 60,000 acres. The fire started east of Julian, split into two main heads, one burning south, one burning north. Burned out the entire eastern flank of the Volcan Range north and through Ranchita, and south through Banner Canyon and parts of the eastern Cuyamacas. 40 homes destroyed. Cause: helicopter rotor struck a powerline in Banner Canyon.

5. Cedar Fire, late October of 2003, 273,000 acres, thirteen civilians & one firefighter were killed, ninety-one people injured, over 2200 homes destroyed. Burned from the Eagle Peak area all the way to San Diego. When the powerful, east winds died, the fire became fuel-driven, turned, then spread east and northeast until just west of the Julian townsite, and also toward the western flanks of the Volcan Range. Cause: a lost hunter in the Eagle Peak area.

6. Paradise Fire, late October of 2003, 56,700 acres. Two civilian deaths & seventeen injuries. 176 residences were destroyed. Fire crews prevented the Paradise Fire and the Cedar Fire from burning together into one main fire. Mesa Grande area did not burn on account of the firefighting effort.

7. Mataguay Fire, 2004. 8,867 acres burned on the northern slopes of the Volcan Range, east & northeast of Mesa Grande area. Cause: kids playing with a bottle rocket (fireworks). Two residences destroyed, two outbuildings.

8. Volcan Mountain Fire, 2005, 685 acres, burned one of the western flanks and

a canyon on Volcan Mountain. Cause unknown, arson suspected.

9. Julian Fire, early February 2006. 20 acres ? Hill just beyond the north end of the town site burned. Cause: arson by a homeless person.

Comments: There is a significant fire history in the area which SDG&E wants for a powerline corridor. What I've mentioned above is a small sample from the 12-year time period of 1994 to 2006. There is also significant potential for a fire in the area. There are, also, other details to be considered about the relationship between the proposed corridor and the fire hazard.



I. EFFECTS OF THE PROPOSED POWERLINE ON THE FIRE HAZARD AND ON FIREFIGHTERS

A. The Effect of an Arid Region on Firefighting Methods, and the Constraints a High-Voltage Transmission Line Could Place on those Methods.

There is little water in this area. Lakes and ponds are few, rivers and streams nonexistent for much of the year and, for the most part, absent from the landscape. Because of this, firefighters in this area rely a great deal on air resources - water drops and retardant drops - to help contain and control wildfires. Firefighters also employ burning techniques (burnout, backfire, and prescribed burning) to fight and prevent wildfires and contain the spread of any fire that breaks out. The long, high barrier imposed by towers and powerlines of this size could present an obstacle to air resources during a fire. Air response to a fire *could* be significantly hampered in its goal of preventing loss of valuable structures, sites and areas. Retardant planes and helicopters approach their targets and release their payloads at low altitudes (and low speeds) so water and retardant can sufficiently coat ground fuels, cool hotspots, & effectively impede the spread of the fire. The height of these towers and lines could, in some cases, prevent aircraft from achieving the low altitude necessary for payload delivery.

Also: towers and lines of this size can increase the threat to pilots who, because of the nature of their work, already take significant risks to place their payloads accurately. The curvy, windy nature of the powerline corridor (in the area my notes cover) could present "navigation" difficulties when you consider that this is canyon country. A diverse maze of canyons having ridgelines with a curvy powerline corridor increases the complexity of the air response to a local fire, especially when other infrastructure, homes, and businesses exist alongside and near the towers and lines.

Pilots know towers and lines are in their working area, and they deal with them constantly in the work they do. Yet the added risk and added stress is there. It is well-known in firefighting circles that most airtanker (airplane) accidents are fatal to the pilot and, if present, the copilot. It's necessary to mention the deaths. This gives a more complete picture. (See the chart on page 12 for air-tanker and helicopter

fatalities over the last 14 years).

Smoke from a fire occludes visibility. Federal regulations prohibit pilots from flying in or through smoke, yet you can't follow the rules all the time. You have to go through smoke, frequently, for long or short moments. Large and difficult to discern because of smoke, these huge towers and the lines strung between them would be very dangerous to pilots unfamiliar with the area. On larger fires, extra pilots and aircraft come from far-away Forests and airports. Pilots arriving from out of the area are briefed on obstructions and other concerns before they go to work, yet the risk is still there. Stress inhibits memory. There are those times when remembering every little detail is impossible.

Example: Storm King Fire, Colorado, 1996. So many fires were burning on this District at once, that the Fire Control Officer for the district had had little sleep for several days and was too tired & stressed-out to brief the foremen of ground crews arriving to handle the fire on Storm King Mountain. Lack of briefing was one, important contributing factor to the ten, firefighter fatalities that occurred on Storm King. This is all mentioned in the fatality report, which I have read several times. ☆

Fighting Fire with Fire : Towers with lines strung between them could possibly pose an obstacle to burnout and backfiring operations so necessary in an arid region, to contain wildfire and protect structures. An immense powerline like this could possibly also pose an obstacle, in certain areas, to the prescribed burning necessary for prevention purposes. The obstacle the towers and lines might present would depend on the placement of the towers, the particular topography, and any nearby homes, other nearby structures, or nearby valuable areas.

Transmission lines can arc in smoke : Because of this, ground crews cannot enter areas where high-voltage transmission lines mix with smoke. Crews and other ground personell have to wait until the power is shut off. Would waiting mean the difference between saving a home and losing a home?, or losing other valuable structures and areas, livestock, cherished pets, etc.? To look carefully at the placement of the corridor is essential. For example, in the Mesa Grande area, once the proposed corridor achieves the top of the mesa, it is placed near homes and crosses a major ☆

road. Some of these homes are close to the edge of the mesa, (or above other slopes), and could be vulnerable to any fire which would ascend the steep, chaparral-laden slopes. Any fire which might break out on a slope (near the bottom along the highway?) would require swift response by ground crews and water tankers, yet as the smoke would be pouring into the area, mixing with the powerlines, initial response crews would have to wait until the power was shut down. What are the probabilities concerning initial response, structure protection, and containment of the fire in relation to smoke, possible arc-ing, and waiting for the power to be shut off? It's hard to say. In discerning the location of a high-voltage transmission line, one has to question the wisdom of locating the proposed corridor near homes and other valued sites in a high-fire-potential area. This (all the above) needs to be thoroughly explored.

B. Radio Communications During a Fire.

Question: would such large towers and such high-voltage lines distort fire-radio frequencies during a fire, thus preventing vital communications?

C. Santa Ana Wind Conditions.

1. When the Santa Ana's blow from the east, fires break out. Sometimes these winds are so strong- 50 - 60 mph and gusts even higher- it would place any ground crews near powerlines at risk. Recently, a huge lattice tower in eastern, Riverside county collapsed due to strong winds. Such large towers, along with the combination of Santa Ana winds and fire, pose a problem. See page 21, in the short section on winds, showing a news article and photo of the collapsed lattice tower..

D. The main maintenance road and the spur roads going to each pad and tower.

While these roads would provide firefighters easier access to, and pro-

vide strategic benefit to fighting a fire, they also increase the fire hazard in the area. How would they increase the hazard? For one, they allow both authorized and unauthorized access to remote chaparral and woodland to human beings: kids playing, ORV's, hunters, homeless people, people drinking and taking drugs, mexican migrants, maintenance workers who smoke, and others. Most of the fires which break out in the San Diego backcountry are started by people. Additionally: should the main, maintenance road and each spur road be gated and the gates locked, this would slow the response time to a fire by ground crews seeking access along these proposed roads. Who would have the keys or combinations for the locks?

Important point: In this backckountry, swift response time to a fire is a crucial factor for containment of fast-moving fire in the chaparral, woodland, and timber. At the same time, roads also increase the chance of a fire breaking out.

E. The towers and lines themselves.

1. Examples of powerline fires in this area:

a). The Laguna Fire in late September, 1970, was caused by strong Santa Ana winds (40-60 mph) which broke a live oak branch, and the branch fell on a high-voltage powerline. The line fell onto a mild, timbered slope whose floor held a layer (2 to 4 inches) of dry, pine needles mixed with dry grass. This slope was in the Laguna Mountains. Two days later, the fire, pushed by strong Santa Ana's, was in Spring Valley, near San Diego. The Laguna Fire burned approximately, I believe, 170,000 acres. I have the fire report for this fire and I've read the report. The Los Pinos Fire Lookout reported winds, at that elevation, of 100 mph on the first day of the fire. The rate of spread of the Laguna Fire, for the first 48 hours, was 3000 acres per hour. The first people on the fire observed that the downed powerline had started three separate fires, far from each other, on the same slope. One might interpret this to mean that a powerline falling along a slope in a downward direction would spark separate, small fires as it fell along the slope, thus making intial containment of the fire by a small number of intial witnesses, trained or untrained, very difficult. Swift response to a fire is essential for quick containment and control.

b). The Pines Fire in late July of 2002 was caused by a Drug Enforcement Agency surveillance helicopter, flying at low altitude in Banner Canyon (so low to the ground that “you could’ve hit that ship with a rock,” according to a witness). They (the pilot and a passenger) were looking for marijuana plantations. These agents were from out of the area and didn’t know about the powerline existing upcanyon from them, which they encountered, and the helicopter rotor hit the line. The small fire which started at the bottom of the Canyon gained 800 feet of elevation, through low chaparral, in two minutes. The owner of the Julian News witnessed the rapid ascent of the fire. The Pines Fire burned 60,000 acres, destroyed 40 homes and countless outbuildings, and took two weeks to contain.

Both of these fires, the Laguna Fire and the Pines Fire, cost millions of dollars to contain, control, and mop up. One also has to add to these figures the emotional, psychological and spiritual costs.

c). A recent (September, 2006), powerline fire occurred in Grapevine Canyon near Bitter Creek. A power outage in the area sent an SDG&E crew out looking for the cause of the outage. What they eventually found was a severed powerline laying on the ground, and a fire which had spread about 200 feet through dead, dry agave and some jojoba. They called CDF, who sent an engine crew to extinguish the fire. Why was the line severed? There was plenty of evidence showing human presence at the site, and one conclusion was that someone took a shot at the line. The bullet severed the line, and the felled line sparked the fire. The line had been severed, not stretched to a breaking point.

F. The Valley at Santa Ysabel.

This valley is a very useful staging ground for helicopters during a wildland fire. There is also an ongoing business in the pasture behind Don’s Market which provides helicopter rides to people visiting the area. The proposed powerline, just to the west of Don’s Market, would present, perhaps, an added risk or obstacle to helicopter flights. A powerline of this size might also diminish the number of customers for the business which provides rides to visitors. People come to see the beauty of the area and the surrounding hills. Such a large transmission line would mar the rural quality of the valley and significantly detract from the natural beauty of

the area.

The local ranchers graze livestock in the valley. Would cattle naturally avoid a transmission line area, or would they, being nearby, be affected by the radiation from the line?

G. Firefighting strategies adversely affected ?

Would the proposed corridor's location result in reduced effectiveness of strategic topography or infrastructure necessary to contain and control a nearby fire? For example: the proposed corridor turns sharply west at Moretti's Junction after arriving from its north/south path along highway 79. After turning west, the proposal then crosses highway 79 and continues west and up the slope to the top of Mesa Grande. Such a placement of towers and wires might be beneficial for the company, but how beneficial would the placement be for firefighters who, in responding to a fire on nearby slopes or meadows, would need to use that part of the highway (infrastructure) or a nearby, topographic feature (rock outcroppings, sandy areas) as a way to halt the spread of the fire? Would the corridor in this area eliminate an effective strategy, or reduce the effectiveness of a well-known strategy in this area ?

Would such placement of towers and wires increase the complexity of a firefighting strategy in this area to an unreasonable level?

U.S. Forest Service Air Accidents 1989 to 2003

	total number of accidents	fatal	number of fatalities
1989	8	0	0
1990	6	1	2
1991	4	2	2
1992	5	1	2
1993	5	2	6
1994	10	4	6
1995	1	2	3
1996	5	0	0
1997	4	1	2
1998	3	2	4
1999	1	0	0
2000	4	1	2
2001	4	0	0
2002	13	3	5
2003	3	1	2

76 accidents total.

Of the total, 9 were airtanker accidents.

In these 9 accidents, 17 people were killed (a little over one death per year).

Of the 76 accidents, 48 involved helicopters, of which were 12 fatalities.

My point here is to show that air-tanker accidents are usually fatal.

Statistics are from the National Interagency Fire Center, Aviation Safety Division, Boise, Idaho.

II. THE EFFECT THE FIRE HAZARD COULD POSE TO THE TRANSMISSION LINE, and other comments.

General Discussion:

The area of Grapevine Canyon poses little danger of a brush fire damaging the proposed towers and wires in the canyon. Fuel-loading in the upper end of the canyon is higher than in the lower and middle segments of the canyon, yet with adequate brush clearance there would be little threat.

The area of the proposed, Central-East Substation was badly burned during the Pines Fire of 2002, which spread into the area from the south/southwest. Four years later, the oak woodland in the drainage below the proposed substation is recovering. Heavy fuels are present due to large amounts of dead branches on most of the oaks in the main drainage. Dead trees also need to be removed. The 400-acre property purchased by SDG&E lies adjacent to, north of, and above, the drainage/woodland. The slopes rising out of the drainage are mild, 25% to 30%, and the woodland poses little, fire hazard to the proposed substation site. It appears that the substation would be a good distance from the main drainage.

SDG&E proposes quite a significant amount of disturbance to the property and thus, to the landscape. Soils, erosion, hydrology and water quality issues should be investigated, should the current route for the powerline be approved. Building a new road and excavating the shallow draws and ridges to create the substation all pose concerns for the side drainages, the main drainage, and the creek (seasonal), (and people's drinking water?) The main drainage with its oak woodland, plus the surrounding hills and side draws, have already been disturbed by the building of roads, a great many driveways, residences and other structures, plus the impact of the Pines Fire. Soils are sandy. Clearing brush around any eventual substation would expose the slopes even more to winter rains. Would excessive erosion be a result of the construction of the substation?

Currently, there is a Fire Safety & Fuels Reduction Program going on in the area, which includes, I assume, SDG&E's proposed substation site. The Program is funded

by the Emergency Watershed Protection Program, through the San Diego County Natural Resources Conservation Service (America's private-lands conservation agency).

The proposed route through the Mesa Grande area is a serious concern and significant issues exist here. Fuel-loading is high and closed-canopy, on most of the slopes in the entire area: the area hasn't had a major fire for at least 46 years according to statistics from CDF. A long-time resident of Mesa Grande, now in his eighty's, said that some areas of Mesa Grande haven't burned in his lifetime. Because there has been no fire for so long, the area is due for a fire. Fire potential is high.



Two segments of the proposed, powerline corridor through the Mesa Grande area need mention and special attention concerning the fire hazard:

a). Moretti's Junction, where highways 79 and 76 meet, just east of the south shore of Lake Henshaw.

b). Mesa Grande Road, as it winds down the southern flanks of the mesa into the valley at Santa Ysabel.

Segments a) & b) are shown on the topo maps. Before discussing them, the potential for a major fire in the area should be discussed : The mesa-type topography of the area shows steep slopes on all sides and, on top, rolling, open pasture, peak and meadow country. Fuel-loading on the slopes below the mesa is heavy, with closed canopy dominating. Height of the chaparral is anywhere from 5 to 6-feet to, in some stands, 15-, 18-, even perhaps 20-feet high (mostly manzanita, scrub oak, small engleman oak, and the larger woody stypes). Percent slope reaches probably 50 to 60 mostly, up to 70 perhaps in some areas, on the slopes below the mesa. Fire in such fuels, on this kind of slope, is rarely stopped. If the start is at the bottom, there's no stopping it once it gains momentum.

The eastern portion of the Santa Ysabel Indian Reservation, across highway 79 to the east, near Moretti's Junction, is seeing the construction of a new casino which will draw thousands of people. The increased, non-resident population in the area will increase the potential for fire enormously. People who visit casinos drink alcohol and smoke.

Heading west from Moretti's Junction on highway 76, one finds a popular biker's

hangout a few miles down the road: a steakhouse. On the weekends, this spot is packed with bikes and people, and they cruise the roads ascending the slopes of the mesa in great numbers. This is a crowd that also drinks alcohol and smokes. The roads ascending the mesa from the southern shores of Lake Henshaw have heavy fuel-loading on both sides, steep slopes, and one, extended area of close-canopy oak spanning the road. The increase in numbers of bikers began about ten years ago.

Highway 79, going south from Warner's Springs and on toward Santa Ysabel, sees tremendous amounts of vacationers when the temperatures in the desert begin cooling. During weekends and vacations, traffic here can slow to 5 or 10 miles per hour due to the numbers of people on the road.

Naturally, the residents in the area have great concern about the tourists and/or bikers starting a fire along the highway or in areas near the highway. Traffic accidents in the backcountry are constant, some requiring firefighters to extinguish any roadside fuels torched by an accident. Included in this are all the other possible starts (ignitions) from residents involved in the ordinary routines of life. Then lightning, which can pound the mesa intensely during certain times of the year.

a). Moretti's Junction and the proposed corridor:

When the proposed corridor reaches Moretti's Junction from its route along highway 79, and from the proposal's Central-East Substation, it crosses the junction, heads due west, and ascends the steep slopes on the northeastern side of the mesa. For a corridor to be built on these slopes, a clearcutting/roadbuilding-style project would be necessary due to the abundant plant life and trees on the slope. A powerline corridor on this slope would require significant width in order to protect the towers and lines from any fire which might break out in the dense, high chaparral and then ascend the steep slope, or any fire which might back down the slope if the shoulder of the ridge took a lightning strike with no accompanying rain. Lightning frequently strikes the shoulders of ridges.

That clearcutting would be necessary to produce a corridor indicates severe impacts : The beauty and natural quality of the slope would be irreversibly damaged. Animal habitat would be destroyed. Any sensitive plant species destroyed. Any riparian both within the corridor and below it damaged. Water quality diminished.



HENSHAW

U.S.G.S.
WARNER'S RANCH, CA.

Matagual

BM 2750

Highway Maintenance Station

Morettis Junction

SANTA YSABEL INDIAN RES. BOUNDARY

ABEL
RVATION

CASINO AREA

Carrista

Carrizo

Creek

Well

Spring

BOUNDARY

19

76

79

19

20

Mines

16

17

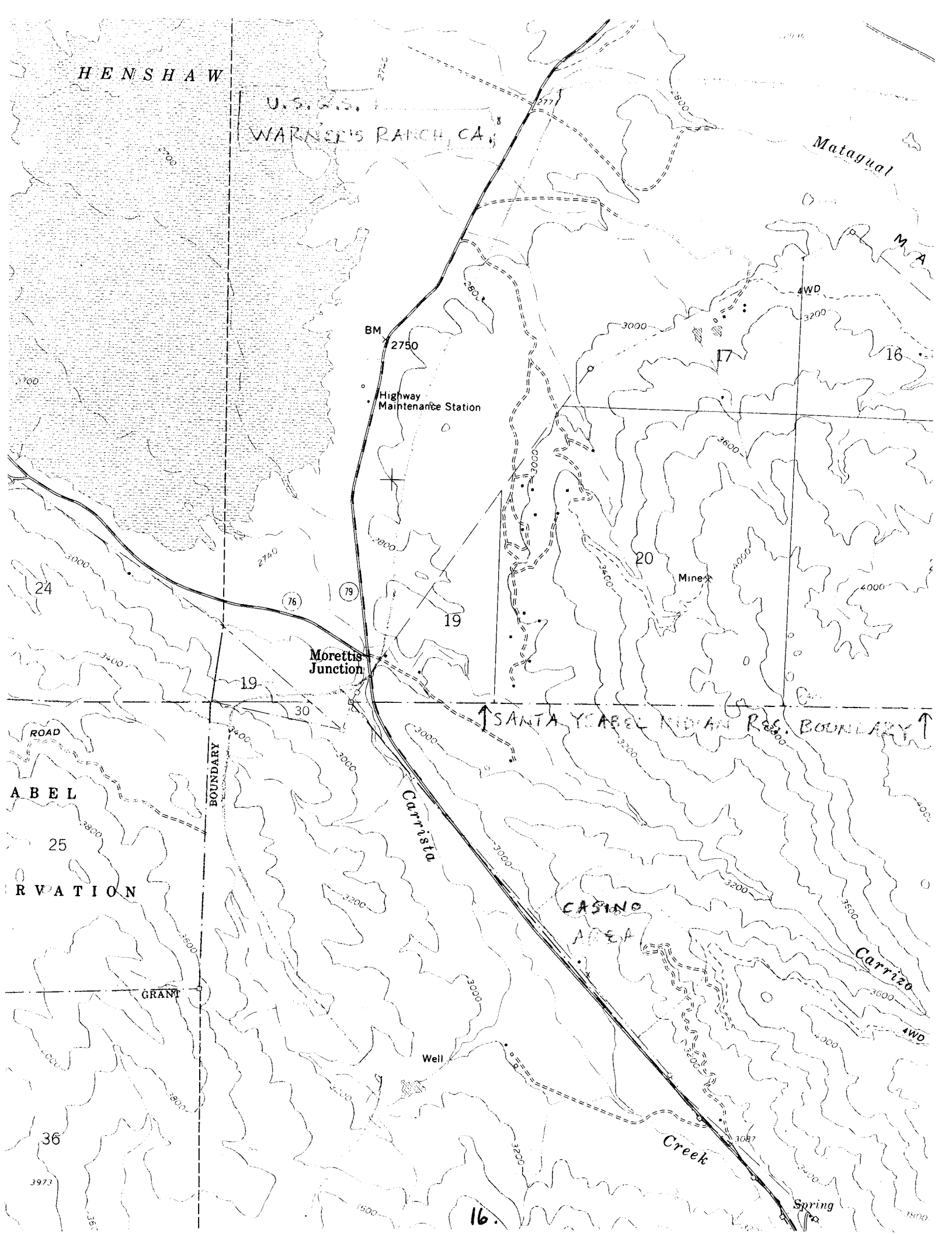
24

25

36

3973

16.



Any historic, cultural resources hidden under the dense chaparral on the slope would be damaged/destroyed. The slope would be exposed to erosion, and also possibly have other consequences due to soils disturbance and the removal of plant life.

How would this clearcut corridor affect the view from the new casino on the other side of the highway where, I imagine, the Santa Ysabel tribe would want as beautiful a view as possible for its customers?

I worked for years in some of the most-heavily-clearcut forests in the Northwest, and I have to say that clearcutting is a very damaging practice. I found logging companies to be, in general, irresponsible & untrustable. Also, immense amounts of debris is left in the wake of their operations. Cleaning up the debris can be very costly. The slash (the debris) can be piled or windrowed on the slope and burned, yet should this proposed corridor be approved, would burning the slash, which would be the cheapest option, be acceptable in such a fire-prone environment? How would SDG&E remove the wood and slash from the slope should the present corridor be approved? And, once removed, the slope would need grass seed and perhaps other low, plant cover to protect the slope from erosion during rains. The clearcut area would also require a system of drainage bars (and even perhaps culverts?) to channel storm run-off into the *existing, natural* drainages on the slope. In addition to all of this, would a maintenance road also be required along the slope to service the towers ? The above are all important questions for this segment of the proposal.

Once to the top of the slope, the corridor reaches a wide, north-south running ridge which is bare, only grass, due to the continual grazing done by ranchers for decades on the ridge. That it is only grass could also be due to other long-term, historical causes.

A detail about this ridge is the boundary line of the northwest portion of the Santa Ysabel Indian Reservation. The boundary takes much of the northern segment of the ridge for the Indians and, where the powerline corridor reaches the ridge, in this area, the powerline would have to sit near the eastern edge of the ridge and, perhaps in this location, be exposed to the possibility of damage by any fire ascending the slopes from below. Yet as the proposed corridor continues south, the reservation boundary falls away to the west, and the proposal begins to occupy the center of the

ridge, free of any threat by fire. The ridge, completely grass and about 1000-feet at its widest, is safe harbor in terms of the threat posed by fire.

Once the corridor leaves this ridge, the fire hazard is slight until it reaches Mesa Grande Road.

b). Mesa Grande Road.

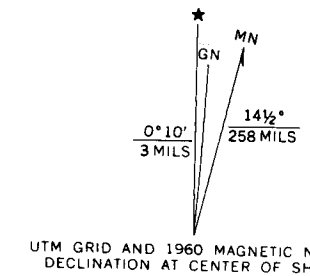
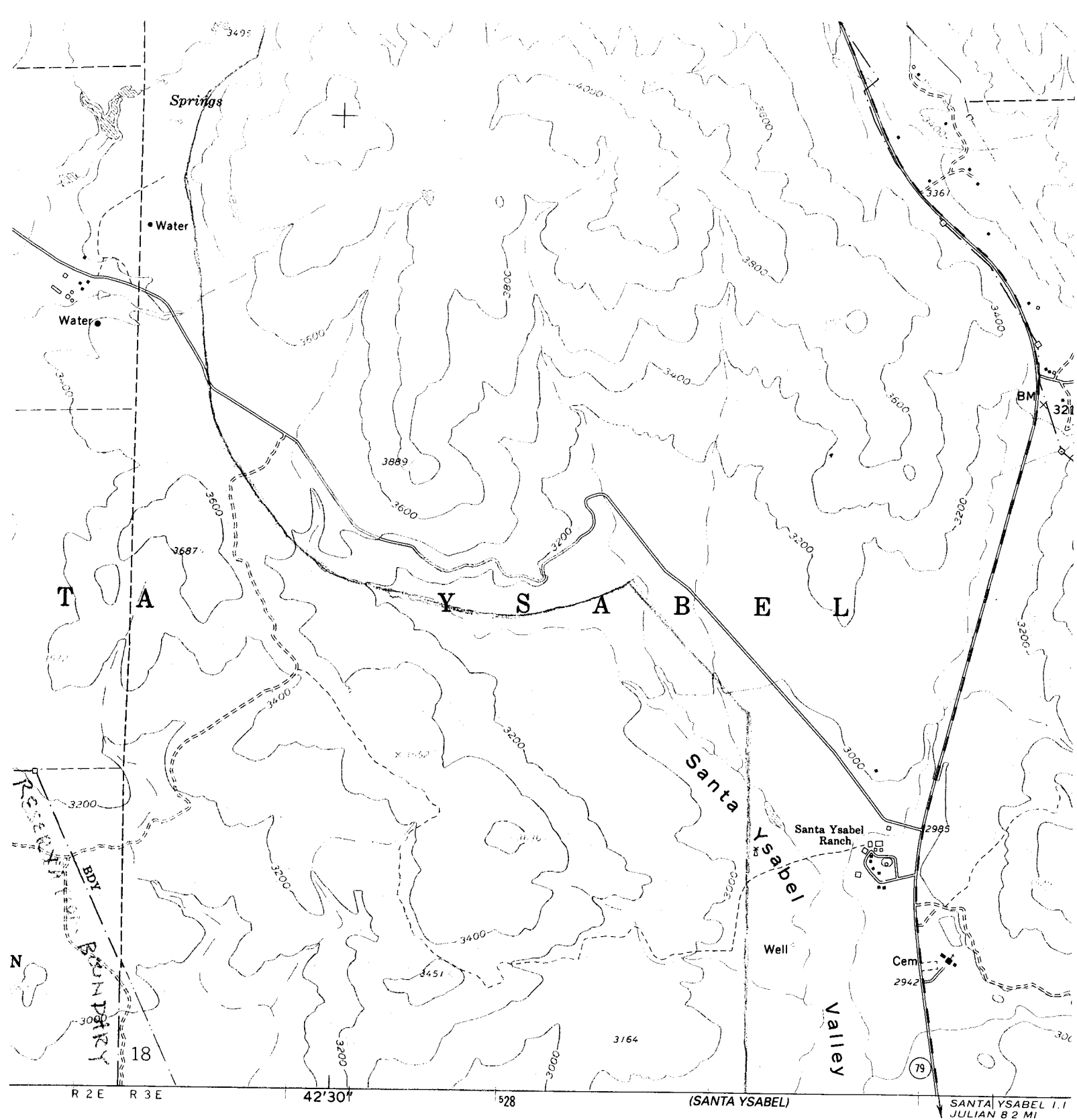
As the proposed corridor heads east/southeast along the south side of Mesa Grande Road, it soon encounters a canyon, and drops into the canyon. You can see this clearly by driving slowly down Mesa Grande Road, heading toward the Mission on highway 78. I've marked the corridor's passage through this canyon on the second topo map on the following page. It's very obvious on the map.

Fuel-loading in the canyon is high, more clearcutting necessary to protect the towers and lines from any fire which would break out in this area. The same clearcutting concerns mentioned for the slope above Moretti's Junction apply here. The corridor would have to be wide in order to protect the towers and lines from any fire which might break out. In addition, if fire were to break out in this canyon, how might heat radiating from the sides of the canyon affect the proposed powerlines? Even if the towers and lines were protected from direct contact with flame by the fuel break, would radiant heat from the canyon's sides be strong enough to damage the towers and/or lines? Radiant heat can be tremendous in canyons.

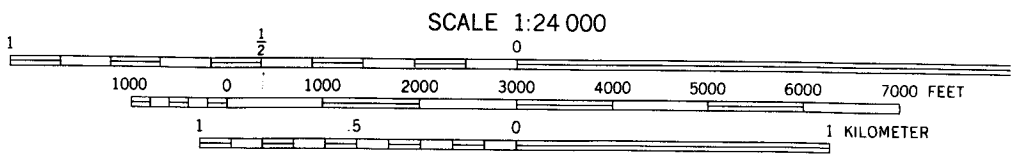
Extreme, fire conditions in canyons produce tornados of fire ("fire whirls" or "fire devils") which can travel short distances. Also, gasses created by fire collect in dead-air pockets in canyons during a fire. A lick of flame then ignites the collected gasses and "flashover" occurs. Does the topography of this canyon include any areas which might be prone to collecting gasses during a fire? In the canyon bottom?, where the corridor might be?

A. Brush Clearance for:

1. Concrete pad and tower sites.
2. Under the wires.
3. Cost of maintaining the fuel break around the pads, under the wires, and for the corridor in general.



U.S.G.S
 WARNER'S RANCH, CA,



CONTOUR INTERVAL 40 FEET
 SUPPLEMENTARY CONTOUR INTERVAL 20 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1960 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

B. The main maintenance road and the spur roads going to each pad and tower.

1. Ridgeline road?, midslope road?, canyon-bottom road?
 - a. place drainage culverts to channel storm runoff into existing, natural drainages. Include spill dams, when necessary.
 - b. Cost of maintaining the main road and spur roads?
 - c. Cost of maintaining the fuel break along the maintenance and spur roads?
 - d. gates and locks. Livestock grazing impeded by gates? fences? Local fire agencies & local ranchers given keys and/or combinations to locks?

III. OTHER ISSUES ABOUT TOWERS & POWERLINES

Wind.

The narrative portion of the fire report for the Laguna Fire of September, 1970 mentions wind: "The Santa Ana wind conditions that caused this fire to reach astronomical proportions will be experienced many times in future years. With this condition it is conceivable any fire brand could lead to a major conflagration." In late October of 2003, 33 years later, such winds indeed led to another major conflagration, the Cedar Fire. As was said in another part of these notes, the Los Pinos lookout, on the first day of the Laguna Fire, reported 100 mph winds at the lookout. High winds are a part of life in the San Diego backcountry. One of the long-time farmers in the Wynola Springs area said recently that the winds in the last few years are the strongest he'd ever experienced in this area. Indeed, on the property where I live, several, immense oaks have been felled by freight-train winds, winds which have caused people to move away from the area.

In the sky, on the lee sides of the peaks and at higher elevations, lenticular clouds are common at various times of the year. Lenticular clouds indicate high winds aloft.

things about this budget. Unfortunately, it still fails to meet the ultimate acid test: It calls for spending in excess of revenues.

Jon Coupal is president of the Howard Jarvis Taxpayers Association -- California's largest taxpayer organization -- which is dedicated to the protection of Proposition 13 and promoting taxpayers' rights.

July 12th, 2006 Issue
of the Julian News.

To laugh often and much; to win the respect of intelligent people and the affection of children...to leave the world a better place...to know even one life has breathed easier because you have lived. This is to have succeeded.

—Ralph Waldo Emerson

500kv Powerline Downed In Riverside County



Southern California Edison (SCE), a major supplier of energy to millions of Californians, notified BLM over the past weekend (July 1) that there was a catastrophic failure of one of the 500 Kv transmission line towers on the Palo Verde Devers 1 transmission line in eastern Riverside County. The tower was apparently brought down Saturday by a severe wind or weather event. The tower is just within the boundary of the Alligator Rock Area of Critical Environmental Concern and is also in desert tortoise habitat. The entire tower collapsed, completely severing and shutting down the energy transmission along the Interstate 10 utility corridor into Southern California.

BLM's Desert District and Palm Springs Field Office are working together to ensure the emergency onsite work does not impact sensitive resources. All protective protocols are being carefully adhered to by SCE in cooperation with BLM. Power outages to Southern California were avoided due to re-routing, but onsite work to temporarily restore energy routing through the area and to re-construct the tower permanently are both underway.

- Information provided by Rolla Queen, BLM California Desert District archeologist.

Photo by Tom Taylor, Manager, Natural and Cultural Resources, Environment, Health & Safety Division, Southern California Edison.

In the Santa Ysabel, Mesa Grande area, the mountain topography just south and east of the Mission acts as a funnel for strong winds from the desert. The focused winds, some years ago, reached 105 mph in the Santa Ysabel valley and caused extensive damage: a 100-year old barn was destroyed, powerlines downed, highway signs blown away, the signs at Don's Market blown away, some roofs of homes taken off and metal hanging from some of the powerlines that remained. A home on top of Mesa Grande has lost its roof four times due to the winds that roar through the area.

All of this raises concerns about the steel poles/lattice towers and transmission lines which SDG&E wishes to place throughout the area. Will another Laguna Fire (see page 8) or Cedar Fire (see page 4, #5) possibly result from such high towers placed on ridgetops, in canyons, and on open pastures and plains totally exposed to the tremendous winds that can blow here?

It is entirely possible that these towers/poles and their lines could be toppled by the winds.

Lightning.



The topography of Mesa Grande influences thunderhead build-up above the mesa. The mesa comes under heavy lightning during the season for thunder and lightning storms. Lightning pounds the entire area from the Laguna Mountains all the way north of Palomar Mountain, and in the desert too.

When lightning hits a tall tree, several things can happen: 1. The top of the tree is shattered. 2. The entire tree is destroyed. 3. The bolt spirals down the outside of the trunk and, when the electrical energy reaches the ground at the base of the tree, it spreads out in all directions. The spread can be thirty- to sixty-feet at times. When responding to a lightning strike, one can find several small fires ignited on the ground around the tree.

What tendencies exist for lattice towers and steel poles used for transmission lines, when these kinds of structures, placed on peaks, ridges or on exposed plains, take a lightning strike? What is the ground spread for such structures? Would the ground spread ignite a fire in nearby chaparral, grass or other fuels? Would placing these

towers in heavy chaparral or grass be a significant fire hazard?

Does lightning, when it connects with towers and steel poles, cause power outages and damage to the wires, towers, and poles? Does lightning, when it connects with towers and steel poles, travel along the transmission lines back to substation equipment and damage the equipment? Does lightning, when it connects with towers and steel poles, travel down the structure for a short distance and then branch away from the structure to connect with other nearby structures or other features in the landscape? (I believe the answer to the last question is yes).

A Unique Landscape.

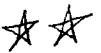
Mesa Grande is one of the last places in California where Engleman Oak grows in abundance alongside Live Oak, Black Oak and other kinds of oak. Only a couple other areas in Northern California preserve the Engleman Oak. The valley at Santa Ysabel and its small, historic Mission, along with Mesa Grande and the entire surrounding area, are a unique cultural treasure preserving an important part of California's history, and an important part of the history of the United States. Our area also possesses the greatest number of Indian Reservations concentrated in a small region, and the Indian presence completes the historical expression of the area, extending it back in time for thousands of years. Is it not vital that we preserve this landscape as it is? To mar the landscape with such an immense, industrial-style project would reveal little respect for history, little respect for a local culture so strongly rooted in history. Culture is intimately integrated with landscape, and such an immense powerline would damage the historical and cultural quality of the actual landscape itself. Although European intrusion into the area, beginning in 1769 with the Spanish expedition from New Spain, altered the plant types and plant geography significantly, those changes were small in comparison to the intrusion of such an immense powerline project like the one SDG&E wishes to build, smack dab through a beautiful, peaceful area of desert, mountains, canyon country, and valleys cherished by the local residents, some of whom have lived here for five and six generations and who are a part of the history and the historical cultures of the area.

The impact to living history and to the preservation of the rural and mountain culture/landscape should be a part of the environmental review. A last note would

be to mention a yearly event on the Mesa Grande. Every year, the Cauzza family allows a portion of their land to be used for the Rendezvous, a weeklong event where aficionados of the mountain-man era of our country's history come and stay. One sees an authentic late 1700s/early 1800s Rendezvous: authentic clothing, living quarters, crafts, contests, and plenty of bartering for goods such as deerskins, mocassins, and other goods common to the early, 19th-century West. If the powerline corridor through Mesa Grande were to be approved, this traditional site for the Rendezvous would, most likely, no longer be possible on account of the nearby transmission towers ruining the mountain/rural atmosphere so necessary for this event.

Also, this event draws hundreds of people to the valley at Santa Ysabel and is a positive, economic benefit to many local businesses.

Last issue to be addressed: interpretations of the data on fire need to be examined carefully.



The idea that electrical-power *delivery* to San Diego will be protected from fire by including a line far north of the SWPL, seems apparent when looking at the matter from the company's point of view. Yet *the system itself* won't be protected from threat by fire, at all, by placing SRPL in the area desired by the company. There is great potential for a fire in the currently proposed corridor for SRPL both now and in years to come. Chaparral grows higher every year. The Santa Ana's blow every year. And, even if San Diego would gain uninterrupted service should a fire damage or destroy a segment of either the SWPL, or the SRPL, the cost of replacing what is burned would be paid for by ratepayers. Hence, it's easy for the company to make a lax interpretation. If the interpretation turns out to be too limited, they won't have to pay for the consequences that can result from limited perceptions.

The company, from my point of view, is playing with fire. They gamble. They think in terms of odds. This is not necessarily in the public's best interests, and a better approach to the system's overall, reliable *delivery* of electricity to San Diego would depend, in my estimation, on an intelligent, forward-looking style of thinking that doesn't place bets, so to speak, that when one line burns, the other won't. Fires break out all over the entire region, all the time, and the majority of these fires are

started by people. People are everywhere, all the time, and our fire season lasts all year round, year after year after year.

Most people are stunned when they see the statistics on the numbers of fires that break out every year in the San Diego backcountry. In addition to this, the potential for a fire is high in the Mesa Grande area due to its *lack of fire history*, and due to the new casino and the other fire-hazard factors mentioned above. The potential is high in other areas of the proposal also, and to attempt to remove the potential where ever it exists, through various mechanical means, amounts to sizeable, irreversible, ecological damage and great loss of beauty.

SDG&E gambles. They say, "If one line burns, the odds are that the other, at the same time, won't." Should the public be at the mercy of gamblers? Should the beauty and ecology of a pristine, life-rich, and fire-rich area be in the hands of gamblers? Should other segments of the proposal be in such hands?

Let us plan and create from a value system in which people and nature are valued above and beyond material gain and status-symbols, and where people and nature are not simply seen as chips in a poker game of probabilities, to be won or lost depending on how the company plays its hand. The fire hazard is a serious issue in the back-country, and I reccomend that a gambler's mentality not be used to decide the issue. ★

Let us plan and create from a value system and set of principles which are safe, contemporary, respectful, intelligent, humane, sensitive, and which promote equality.

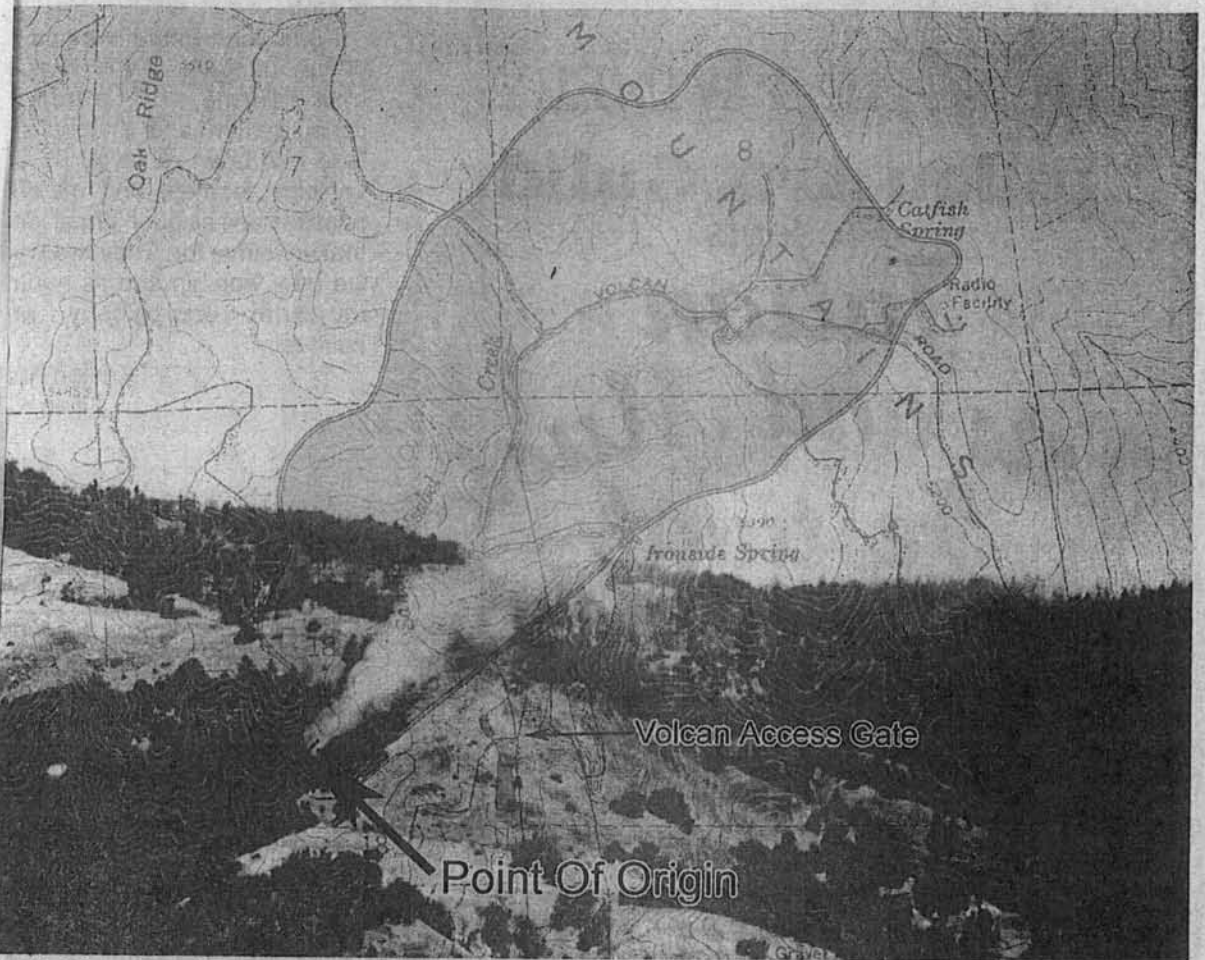
General suggestion about the corridor proposed for the areas mentioned in the above notes: All the above issues lead me to ask/suggest that the corridor not go through this area, and that safer, less-damaging and less-obtrusive alternatives be found.

Alternatives:

-Rooftop, building-top, parking-lot solar; energy efficiency; conservation measures; in-basin generation; self-discipline.

-Complying with the Regional Energy Strategy already agreed upon for San Diego. The Regional Energy Policy Advisory Committee and SDG&E spent two, long years crafting this plan.

Another Fire In Paradise



At 11:38 on Tuesday the 7th a fire was reported on Volcan Mountain. At it's peak the fire involved 685 acres, over 1300 fire fighting personnel with 20 bull-dozers, 12 helicopters. Cooperating agencies included CDF, USFS, CHP, Julian-Cuyamaca Fire Protection District, OES, California State Parks, California Department Of Fish and Game, SDG&E, and CDC.

The fire is being treated as arson with reports of a motorcycle seen leaving the area shortly before the fire was reported.

Crews will continue cleaning up the area for the next couple of weeks as the danger of flare-ups is still high due to the steep and treacherous terrain.

Photo Courtesy of David Lewis, Graphic Information from CDF.

**So Little Time!
on The Hill?**

**September 17th - 18th
Julian Banjo Fiddle Contest
& Blue Grass Festival**



10-1-06

Looking Southwest towards densely overgrown
ridgeline above Hwy 79 just south of Hwy 79/76
Junction

Proposed route of Transmission Line along ridge

This photo goes with my statements about McVeth's
Junction. A neighbor provided this photo of the
fuel-load/appearance of the slope.

G. Courson