Comments and Responses to Comments

This volume presents two sets of information. First, documentation is included for the information that was provided to the public and other parties during the comment period for the Draft EIR (between July 16 and August 28, 2003). Second, copies of all comments submitted on the Draft EIR are provided, as well as transcripts from the Public Participation Hearings held on August 12 and 14, 2003.

Information Provided During Draft EIR Comment Period

During the Draft EIR comment period, several parties and jurisdictions requested that the CPUC provide additional information that would better enable them to prepare comments on the Draft EIR. In order to provide this information to the public, this information is reproduced in this Final EIR. Table 1 presents a listing of the requests and resulting information. Following the table, the actual information requested and disseminated is presented.

Table 1. Summary of Information Provided During Comment Period

Name of Requester	Type of Information Requested	Date Information Provided	Form of Information Provided
Neil Winterbottom	Information on the Project description and proposed tower locations and styles	July 18, 2003	Email correspondence from Susan Lee (Aspen Environmental Group)
Scott Buschman	Discussion of the purpose of the November hearings and the CPUC review process	July 22, 2003	Email correspondence from Susan Lee (Aspen Environmental Group)
Scott Buschman	Information on CEQA and CPUC requirements for public notification	July 30, 2003	Email correspondence from Susan Lee (Aspen Environmental Group)
Katie Carlin	Confirmation that there are no plans on record at the CPUC to upgrade the existing 60 kV transmission lines	August 4, 2003	Email correspondence from Billie Blanchard (CPUC)
Katie Carlin	Clarification of CEQA rules regarding transmission line upgrades	August 5, 2003	Email correspondence from Billie Blanchard (CPUC)
Karen Olson Stern	Suggested an alternative route and requested clarification of an inconsistency in the Draft EIR	August 5, 2003	Fax correspondence from Billie Blanchard (CPUC)
Katie Carlin	Clarification of the proposed components of the Partial Underground Alternative	August 7, 2003	Email correspondence from Billie Blanchard (CPUC)
Scott Buschman	Information on how to amend the rules of General Order 131-D and *CEQA Guidelines*	August 7, 2003	Email correspondence from Billie Blanchard (CPUC)
Judy Chen	Response to questions concerning the requirements of lines for the cancellation effect of EMF and the process for future upgrades of the 60 kV lines	August 11, 2003	Email correspondence from Billie Blanchard (CPUC)
Wesley Skow (PG&E)	Provided hazardous material database search results for alternative routes	August 15, 2003	Email correspondence from Billie Blanchard (CPUC)
Michele Nemschoff	Discussion regarding benefit of the Jefferson-Martin project	August 18 2003	Email correspondence from Billie Blanchard (CPUC)
Michele Nemschoff	Discussion of the route of the Partial Underground Alternative west of I-280	August 18 2003	Email correspondence from Billie Blanchard (CPUC)

Table 1. Summary of Information Provided During Comment Period

Name of Requester	Type of Information Requested	Date Information Provided	Form of Information Provided
Katie Carlin	Provided contact information for RW Beck to discuss projected EMF scenarios	August 19, 2003	Email correspondence from the Jefferson-Martin Project Team
Judy Chen	Discussion of the EMF levels that would occur behind the houses on Lexington Avenue with the 230 kV and 60 kV collocated underground, including a modeling analysis of the area	August 21, 2003	Email correspondence from the Jefferson-Martin Project Team
PG&E and copied to others as interested parties	Clarification information regarding the location of the Modified Underground Existing 230 kV Collocation Alternative and New South San Francisco Segment and response to PG&E's questions about the Modified Underground Existing 230 kV Collocation Alternative and New South San Francisco Segment	August 26, 2003	Mailing of a detailed map (on 18 sheets) illustrating the alternative route
Mark Trail	Provided information concerning the potential for radio interference with the proposed power lines and towers	August 27, 2003	Email correspondence from Susan Lee (Aspen Environmental Group)
James Goodman	Discussion of the makeup of the proposed underground cable and clarification that fluid will not be used	August 27, 2003	Email correspondence from Susan Lee (Aspen Environmental Group)
Katie Carlin	Discussion of serpentine soils issues regarding asbestos mitigation and post-trenching habitat regeneration	August 28, 2003	Email correspondence from Susan Lee (Aspen Environmental Group)
Rick Frandsen (280CCC)	Discussion of current (amperage) flow in different segments of the existing transmission line and EMF calculations	September 2, 2003	Phone conversation with K.C. Fagen (RW Beck)

Copies of Information Provided

Email from Neil Winterbottom:

We're considering purchasing a house at 1660 Lexington Drive, San Mateo.

We'd like to know if the transmission towers visible from the rear of the property will move noticably from their present locations. All the simulations of new towers show towers in the same place, just larger (OK substantially larger - in height and base dimensions).

Will the new line be erected closer to, or further away from Lexington Drive?

Finally, one question about the choice of tower style. It seems that alongside Hillsborough the proposed towers will be the tubular style vs the lattice style alongside San Mateo Highlands - any reason?

Look forward to your reply, Neil Winterbottom

EIR Team Response:

Mr. Winterbottom:

Attached is a Notice of Availability for the Draft Environmental Impact Report (Draft EIR) evaluating PG&E's proposed transmission project. This notice lists locations where you can see the Draft EIR and when there will be public meetings.

The questions you ask relate to the route that PG&E has proposed, but you should be aware that the Draft EIR also evaluates a range of alternatives that could result in (a) no change to the existing transmission line (the new 230 kV line would be installed underground along Cañada Road), or (b) putting the existing and new lines underground. The decision as to what option (if any) will be approved by the California Public Utilities Commission will not be made until early to mid-2004.

To answer your specific questions about the design that PG&E has proposed:

1. PG&E has proposed that each existing tower would be replaced by a new tower within about 100 feet of the existing location. Tower 5/28 is the one closest to the water tower, and Tower 6/34 is the one just south of Black Mountain Road; there are 5 towers between those and they would range from 20 to 30 feet taller. Four towers would be moved to the west, two would move north, and two would move to the northeast (closer to the houses). PG&E states that these locations are "preliminary."

2. PG&E proposed the tubular style towers along the Hillsborough segment because those existing towers are the narrower "lattice steel poles" which are no longer used. PG&E proposed to replace existing lattice style towers with new lattice style towers.

If you have other questions, please feel free to come to our workshops on July 29 and 31 (see attached announcement).

Email from Scott Buschman

Billie Blanchard,

I received the notice that the Draft EIR has ben released and the list of the upcoming meetings. Thank you for that.

Please clarify though: If all the public comments must be in by August 28, what is the purpose of the November 18 meetings?

Sincerely, Scott Buschman, San Bruno

EIR Team Response

Mr. Buschman -

After the EIR is finalized, a separate phase of the CPUC's review process for the Jefferson-Martin project begins. An Administrative Law Judge will hold hearings on the project and will consider issues (such as cost and need) that are not considered in the EIR. The hearings originally scheduled for November 18 (now on December 8 and 9 will be focused on those issues, and not environmental issues. After the judge hears all testimony on all issues (early in 2004), she will prepare a draft decision on the project.

Please let us know if you have any other questions.

Email from Scott Buschman

I met you at last night's San Bruno open house. I was interested in CEQA's and CPUC's requirements for public notification (i.e. 300 ft from a project route.). I appreciate any info/passages you can find and pass on regarding this.

Thanks, Scott Buschman

EIR Team Response

Scott -

Attached is the CPUC's General Order 131-D which guides utilities in the application process. You'll see in Section XI, Notice, under item 1.b. the 300 foot requirement - this applies to PG&E when it files its application (and applies only to the proposed route and not to alternatives).

Also attached is *CEQA Guidelines* Section 15087, Public Review of Draft EIR. I hope these give you the information you're looking for. Let me know if you have any other questions.

P.S. http://ceres.ca.gov/ceqa/ This is the best website for CEQA info.

Email from Katie Carlin

Is this the appropriate format to formally request that the CPUC investigates whether or not there are any plans on record to upgrade the double 60kv circuit lines that currently run the length of the proposed route 1A?

If it is, please register this request and let us know where it goes. Thank you so much for your help thus far.

Katie Carlin 650-627-9997

EIR Team Response

Katie,

The only plans that the CPUC is aware of at this time to upgrade the double 60kV circuit lines that currently run the length of the proposed route 1A is the PG&E Proposed Project of an overhead and underground line. It involves rebuilding the existing Jefferson Martin 60 kV double circuit tower line to enable the east side to operate at 60 kV and the west side at 230 kV. There is nothing else pending before the CPUC for this existing corridor.

I hope this answers your question. Please call me if you have any further questions or if there is something that I have not addressed to your satisfaction.

Thank you. Billie Blanchard 415-703-2068

Email from Katie Carlin

Thank you Billie, I don't mean to take up any more of your time with this. However, we seem to have received two answers in regards to whether or not this upgrade would require CEQA. What are the rules about that? We'd like to know what sort of notice we could expect should an overhaul to that system take place some time in the future.

Thanks again, Katie Carlin

EIR Team Response

I know we talked on the phone but just to reiterate my conversation - any new project (electric power line facilities or substation) by an electric public utility must comply with CPUC General Order 131-D, Public Utilities Code 1001, CEQA, and CPUC Rule 17.1 of the CPUC Rules of Practice and Procedure Title 20 California Code of Regulations. The requirements would be based on the specific type of project that the utility would propose to the CPUC. We would have to see what they were proposing and proceed in accordance with our regulation language including the appropriate notification.

Regards, Billie Blanchard 415-703-2068

Letter from Karen Olson Stern

See Comment Letter 3 and the associated Responses to Comment Set 3 for a copy of the letter and additional responses from the EIR Team.

EIR Team Response

Thank you for your comments on the Jefferson-Martin Project Draft EIR. I would like to respond briefly to both of your comments in this fax and follow-up with a more detailed response in our Response to Comments after the 45-day Draft EIR review period.

You have suggested that after the Partial Underground Alternative joins the Proposed Project – to take the lines underground from Tower 11/71 to the north end of Trousdale Drive, continue underground below the I-280 overpass and across Skyline Blvd and then down Trousdale Drive along the 1B route. There would be a transition station at the Trousdale Drive area. The Draft EIR did not consider this option; however our environmental team will respond to this in detail at the Response to Comment period.

In addition, you indicated that there might be an inconsistency between page Ap.1-53, paragraph 2, and line 3 and figure Ap.1-3b. The paragraph language and Figure Ap.1-3b are inconsistent as follows:

The Partial Underground Alternative would reroute the Proposed Project towers 9/63 to 11/70 in this area to a west of I-280 location as depicted on Ap.1-3b. It would not rejoin the proposed route between towers 10/68 and 10/69. You are correct and our language on page Ap.1-53, paragraph 2, line 3 will need to be corrected through the Response to Comments process.

I hope this addresses your questions. Please call me if you have any more questions regarding the above response and/or if I misunderstood your comments.

Email from Katie Carlin

We have some concerns regarding the partial underground route between the Carolands and Ralston Substations. We cannot seem to locate where it is set in stone that PG&E would be required with this plan to underground the 60kv line in tandem with the 230kV line, and remove the towers and lines from that area.

Could you advise us please? Is there a chance that if we advocate for that plan and it is accepted by the commission, PG&E could somehow get by with leaving the double circuit 60kV line in place above an undergrounded 230kV line?

Thanks, as always, for your attention, Katie

EIR Team Response

Katie,

The Partial Underground involves Undergrounding both the 60kV and 230 kV in the areas proposed for underground. See page C-17 and Figure D.3-20a. If the CPUC votes for this alternative, this would be the Project that would be built, but we need to go through the proceeding process after the EIR is certified.

Billie

Email from Scott Buschman

Billie,

I was at the San Bruno open house on Tuesday. I wonder if you would know who I should contact regarding amending the CPUC's rules as listed in General Order 131-D. I am also interested in amending CEQA guidelines. Do you know anyone in the governor's office that I could speak to about these?

I appreciate your help on this.

Scott Buschman

EIR Team Response

Dear Mr. Buschman,

Sorry that I did not get back to you sooner on your questions. It has been busy here at the Commission. In answer to your question on amending CPUC's rules in 131-D I suggest that you contact the Public Advisor's Office here at the Commission -505 Van Ness Ave. Room 2103, San Francisco, CA 94102, telephone 1-866-849-8390, or public.advisor@cpuc.ca.gov.

Second, on amending CEQA Guidelines there are two agencies responsible for CEQA administration and oversight -the Governor's Office of Planning and Research (OPR) and the Resources Agency. OPR is responsible of reviewing and recommending changes to the Guidelines and the Resources Agency is responsible for formal rule making and adoption of the Guidelines. The process for adoption of the Guidelines usually starts with recommendations from OPR or through a request from a public

agency. The Resources Agency certifies and adopts the Guidelines after proposing a draft that goes through public notice and comment.

Based on this process, I would suggest that you contact the OPR in Sacramento at 1400 Tenth Street. I do not have a specific contact, but they would be the place to start.

Regards, Billie Blanchard 415-703-2068

CPUC Energy Division CEQA Unit

Project Manager for Jefferson Martin

Email from Judy Chen

First, may I say on behalf of the group, we were very impressed with your presentation and all of the work that has gone into the Draft EIR. Thank you.

We (the San Mateo group) have some questions that we would like to direct to Chuck Williams, your electrical engineer.

1. What milligauss level would occur if within the present right of way behind the houses on Lexington you have:

a) 230kV and 60 kV underground;
b) 230kV and 115kV underground; or
c) 230kV and 230kV underground.

2. Is there necessarily a cancellation effect if a 230kV line is running next to a 60kV (or 115kV or 230kV, for that matter)?

Not just in theory, but actually. If so, what are the requirements, ie. the lines need to be how far apart, how deep, etc.

3. If a 230kV line and the present 60kV lines were placed underground in the present ROW behind Lexington, could the 60kV line later be upgraded to 115kV (or 230kV)? If so, do you know what the process would be?

Our first question is the most urgent, if you can please answer it first and the others later. Also, please advise which ISO calculations you used. If you want to call me to discuss, that would be great. Thank you.

Judy Kwee, 650-349-4714

EIR Team Response [Response to Questions 2 and 3]

[Note: See Response to Question 1 on page 13]

Dear Ms. Chen:

Please find below our response to your Questions 2 & 3. We are still working on a response to your Question 1 which has a number of issues for us to discuss in-house.

Regards, Billie Blanchard 415-703-2068
CPUC Jefferson Martin Project Manager

Question 2. Is there necessarily a cancellation effect if a 230kV line is running next to a 60kV (or 115kV or 230kV, for that matter)? Not just in theory, but actually. If so, what are the requirements, i.e. the lines need to be how far apart, how deep, etc.

Placing two transmission lines adjacent to each other can result in an interaction of their magnetic fields. This interaction is not just in theory, it has been demonstrated on actual transmission lines for real world installations. The type and amount of interaction depends on a number of factors. There are three main parameters that affect the magnetic field interaction of transmission lines:

1. The distance between the phases of the two lines affects the amount of magnetic field cancellation that will occur. If the transmission lines are on separate adjacent structures, the field interaction is most likely to reduce the magnetic field in the area between the two lines but may only have a minor effect on the magnetic field strength on the outside of these lines. However, if the two transmission lines are brought close together on the same structure the magnetic field interaction would be increased, this would result in a more pronounced effect on the magnetic field strength on the outside of these lines.

2. The amount of electrical current and direction of power flow on each line is a key parameter. Note that this is independent of the transmission line voltage. If the current on the two lines is flowing in the same direction, the magnetic field cancellation effect would result in a lower magnetic field for the lines than if they were not next to each other. If the current on the two lines is flowing in opposite directions the cancellation effect is much more pronounced and would be expected to result in even lower magnetic field than if current flow is in the same direction.

3. How the phases of each line are arranged relative to each other is one of the important determinants in the interaction of magnetic fields. For example if the phases on one line were A-B-C top to bottom and the adjacent circuit was arranged C-B-A top to bottom this would further increase the magnetic field cancellation (this type of arrangement is referred to as an optimal phase arrangement).

In terms of the "requirements" necessary for field cancellation it is not possible to state specific distances for the reasons stated above. In general, placing power lines in close proximity to each other, i.e. on the same structure or in the same duct bank would be expected to result in noticeable interaction of the magnetic field from each line.

Question 3. If a 230kV line and the present 60kV lines were placed underground in the present ROW behind Lexington, could the 60kV line later be upgraded to 115kV (or 230kV)? If so, do you know what the process would be?

If the 230 kV and 60 kV lines were placed underground in the present ROW and in the same duct bank it is feasible that the 60 kV circuit could be replaced by a higher voltage circuit. In order for this to happen, from a technical perspective, I anticipate that the 60 kV cables would need to be removed and replaced with new cables designed/rated for the higher voltage would need to be installed in the ducts originally occupied by the 60 kV circuit. In order for this to happen, from a permitting perspective, PG&E would need to confer with the PUC on their requirements for additional 131-D application processing for a new project (not previously approved by the CPUC).

Email from Wesley Skow, Latham & Watkins for PG&E

PG&E is evaluating the potential for hazardous material related impacts, and the nature and approximate cost of any necessary hazardous materials mitigation encountered along the various route alternatives described in the J-M DEIR. Based on the DEIR, we understand that the CPUC (or Aspen) performed hazardous materials database searches (i.e. Vista or EDR searches) for some or all of the proposed alternative route segments. If so, could we please get a copy of these searches? If not, please let us know ASAP. Thanks.

J. Wesley Skow

EIR Team Response

Wesley,

In regards to your request, Hedy Born at Aspen will be making available to you this information on CDs with a cc package to me. Please let me know if you have any further questions regarding this matter.

Billie

Email from Michele Nemschoff

Hi - I'm writing on behalf of the 280CCC and first wanted to say thank you for your prompt responses to our many questions and concerns.

When meeting with County Supervisor Mark Church yesterday he asked how much is Burlingame going to benefit from the 230kV line as prposed in the Jefferson-Martin project. I know the line is primarily to serve San Francisco's electricity needs but it does say that parts of northern San Mateo County, including Burlingame and Millbrae would derive some benefit. Do you have any more specifics about what Burlingame (and rest of San Mateo County) gets from this? any now? or only in the future? and/or what % of the line is to service San Francisco? My understanding is it's NOT going to resolve the current black out problems Burlingame is having, as that is due to some other problems that are supposedly going to get fixed by PG&E.

Any more details would be quite helpful not only to reply back to his office but for our group to have as well.

Thanks, as always, for your help, Michele

EIR Team Response

Michele:

Please find attached below a response to your August 8, 2003 question on benefits of the Jefferson Martin Project. I am sorry that it took so long to get back to you. I hope that this answers your question.

Regards, Billie Blanchard 415-703-2068
Project Manager for Jefferson Martin

Attachment: Discussion of Jefferson-Martin Benefits

When questioned about the reliability and related benefits of the Jefferson Martin project to the following jurisdictions: Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma, and Daly City PG&E responded as follows:

> "Electric demand in San Francisco and northern San Mateo County is supplied by the same transmission lines and local power plants. The transmission system is an interconnected network and the same transmission lines that supply northern San Mateo County also supply the City and County of San Francisco.
>
> The major transmission lines that import power to supply San Francisco and north San Mateo County are located in a single corridor along Highway 101 between Martin Substation (just south of the San Francisco boundary) and San Mateo Substation. PG&E substations located in northern San Mateo County supplied by these lines include Burlingame, Millbrae, East Grand, Daly City and Serramonte Substations. These substations, along with the distribution facilities at Martin Substation, supply electricity to Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma and Daly City. Burlingame, Millbrae and East Grand Substations interconnect directly to the transmission lines between San Mateo and Martin Substations. Daly City and Serramonte Substations are interconnected to separate transmission lines from Martin Substation. Transmission lines that supply loads within the City and County of San Francisco interconnect with and import power from Martin substation. Power is imported to Martin substation by the transmission lines running between San Mateo and Martin substations.
>
> The potential benefits of the Jefferson-Martin 230 kV Transmission Project (the "Project") to the City and County of San Francisco also apply to the cities of Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma, and Daly City since, as described above, they are supplied by the same transmission lines."

When asked if the area of San Mateo County that is now served by the double-circuit 60 kV line will receive the same or improved service when it is served by a single-circuit 60 kV line, even though none of the local substations would be served by the new 230 kV circuit PG&E responded as follows:

> "The 60 kV substations that presently have two sources of transmission supply will continue to have two sources with the Project. Those 60 kV substations that presently have one transmission source will continue to have one source.
>
> The substations, as described on pp. 2-7 of the PEA, energized to the existing Jefferson-Martin 60 kV circuits, are Ralston, Hillsdale, Half Moon Bay, Carolands, Sneath Lane, Pacifica, Watershed, Crystal Springs, San Andreas, and San Bruno. All these substation supply loads. The existing Jefferson-Martin 60 kV circuits also connect to the Hillsdale Junction switching station.
>
> The arrangement for the San Bruno, San Andreas, Sneath Lane, Pacifica, Crystal Springs, Hillsdale, and Half Moon Bay substations would remain the same with the Project.
>
> Ralston, Carolands, and Watershed substations are presently normally supplied by one of the Jefferson-Martin 60 kV circuits with the other 60 kV circuit used as an alternate supply should outage of the normal supply circuit occur. Switches at or near the substation will transfer from the primary supply circuit to the alternate supply circuit. With the Project, these substations would use the new upgraded 60 kV circuit as the normal and alternate supply by installing switches to sectionalize the line at or near the substation. These switches would allow the substation to be transferred to the section of line that is not affected by the outage.

The Project also includes two 60 kV circuit breakers at Hillsdale Junction switching station to sectionalize the new upgraded 60 kV line. The sectionalizing results in reduced 60 kV line exposure to Watershed, Ralston, and Crystal Springs substations, which would enhance their reliability.

In addition, while the new Jefferson-Martin 230 kV circuit will not directly connect to the 60 kV substations, it does enhance reliability by providing increased capability and redundancy of 230 kV supply to this area by installing a third 230 kV circuit to Jefferson substation."

Based on the above data from PG&E and having reviewed the recent load carrying studies performed by the CAISO the benefits to the various portions of the Peninsula and City can best be described as follows.

To start with one would expect that the loads served from the present 60 kV system along the 280 corridor would not see much in the way of change with respect to reliability. For the most part these loads are served out of the Jefferson substation and would continue to be. Note however, that some of the load may be served from the 60 kV system out of Martin substation, which could be positively impacted by the Project. In any case these loads represent a small fraction of the overall Peninsula load.

The overall load is split approximately 50-50 between the City (900 MW) and the remainder of the Peninsula (900 MW). Currently there are contingencies that could result in the loss of significant load north of the San Mateo substation including "Burlingame (and rest of San Mateo County)". The distribution of the load reductions between the City and the remainder of the Peninsula would vary depending upon the particular contingency. If the problem is in the vicinity of San Mateo substation all of the Peninsula loads, including the City could be a candidate for reduction. Likewise a problem with some of the in City generation could result in the need to reduce load Peninsula wide. If the problem is a wires related problem downstream of the Martin substation the load within the City would more likely be a candidate for curtailment or otherwise be adversely impacted. For the most part these problems would likely be independent from the availability of the Jefferson-Martin project.

Given the relatively equal distribution of the load between the two areas (City v. remainder of Peninsula), it is reasonable to consider project benefits to be relatively the same for each area.

With respect to the "current black out problems Burlingame is having". It is understood that this is related to local distribution line problems and as such is not impacted by the presence of or lack of the Project.

Email from Michele Nemschoff

Hi - One more question re: the DEIR and Jefferson-Martin.

We were wondering (and I'm sure it's explained somewhere within the DEIR but I couldn't find myself) why in the Partial Underground route (in Burlingame section just north of the golf course) does the route seem to stray pretty far west of 280 (into the Watershed)? Is it because that is where the fire roads and/or access roads are? Or is there another reason (slope of land closer to 280)? Is there a way to make it closer to 280 (like it is along the golf course) so it does not impact the watershed property as much, as we feel some parties might oppose the route on those grounds?

Sorry if it is already articulated….if you can refer me to the pages you don't have to repeat in your reply.

Thanks so much, Michele

EIR Team Response

Michele:

This is a preliminary route based on alternative level of analysis. If the Partial Underground were chosen final engineering based on the impact analysis and mitigation measures would have to be done. I will have to have Susan Lee respond to you more specifically on the mapping, but more specific tower siting would have to be done. We recognize that this reroute gets the towers out of the Burlingame residences' backyards, but does create other impacts. On page Ap.1-55, the Draft EIR Appendix 1 does indicate that careful placement of the individual towers could effectively mitigate this concern.

Also, look at the Bio section analysis/mitigation measures including page D.4-58 to 59.

Regards, Billie Blanchard

Email from Katie Carlin

We are scrambling to figure out what the best possible route is for the residents in the three towns we represent. To that end we need a cell number or direct email address for Chuck Williams. He seems to have projected emf scenarios that are different from ours. We need to track down the factor that is causing the discrepancy.

We want to articulate a position on a route for the August 28th letter, and to do that we absolutely need to know what kind of emf we would be looking at with the partial underground since many homes are within 50 feet of that line. Again, our numbers are different from the Aspen groups and we need to know why.

I hope we're not driving you all nuts with this emf stuff, right now health and safety is our most urgent concern, once we have educated ourselves about exactly what exposure is probable, we will be able to cross emf off our list and move on to other important considerations.

As always, thanks so much for you attention.

Katie Carlin

EIR Team Response

Dear Ms. Carlin,

[Our EMF specialist,] Chuck Williams is out of the country through Labor Day. Filling his place is K.C. Fagen, another EMF analyst from R.W. Beck. You may direct your questions to him at kfagen@rwbeck.com or (206) 695-4657. Please let us know if you have any further questions.

Thanks, The Jefferson-Martin Project Team

Email from Judy Chen [Response to Question 1]

[Note: see earlier discussion on page 7 for a Response to Questions 2 and 3]

Dear Aspen Group,

First, may I say on behalf of the group, we were very impressed with your presentation and all of the work that has gone into the DEIR. Thank you.

We (the San Mateo group) have some questions that we would like to direct to Chuck Williams, your electrical engineer.

1. What milligauss level would occur if within the present right of way behind the houses on Lexington you have:

a) 230kV and 60 kV underground;

b) 230kV and 115kV underground; or

c) 230kV and 230kV underground.

2. Is there necessarily a cancellation effect if a 230kV line is running next to a 60kV (or 115kV or 230kV, for that matter)?

Not just in theory, but actually. If so, what are the requirements, ie. the lines need to be how far apart, how deep, etc.

3. If a 230kV line and the present 60kV lines were placed underground in the present ROW behind Lexington, could the 60kV line later be upgraded to 115kV (or 230kV)? If so, do you know what the process would be?

Our first question is the most urgent, if you can please answer it first and the others later. Also, please advise which ISO calculations you used. If you want to call me to discuss, that would be great. Thank you.

Judy Kwee, 650-349-4714

EIR Team Response [Response to Question 1a]

Dear Ms. Chen,

I apologize for the delayed response, however, it is due in part to the fact that in response to Question 1a, our EMF analyst has modeled the underground duct bank (see attached Excel document).

PG&E has not provided a proposed or conceptual arrangement for multiple circuits within a duct bank. Therefore, our modeling for the 230 kV and 60 kV circuits has extrapolated from the information provided by PG&E, but PG&E has not validated current levels or duct spacing when multiple circuits are present.

For parts b and c to Question 1, there is no basis for the amount of current flow in the second circuit, whether it is 115 kV or 230KV, so any modeling we would prepare could be considered highly speculative and potentially misleading. For this reason, we cannot answer those questions at this time.

Please let us know if you have any other questions or concerns

Thanks,

Jefferson-Martin Project Team

Note: Please refer to General Response GR-1, below, for graphs depicting the modeling data.

In a later, less-rushed evaluation of the configuration of the ductbank, it was discovered that the Utility uses a different ductbank configuration than the configuration used in the initial analysis, which was gotten from the Utilities EMF design guide included in the Draft EIR, Appendix 3. With the more consolidated ductbank configuration, the magnetic fields will be reduced from the previous calculations. The double circuit underground EMF calculations and the shape of the lines on the graph changed slightly, but the values were close to the original values. At the maximum values (between 31 and 55 mG for different configurations) the difference was only one or two mGauss. The following data are from re-run analyses of the previous configuration with the updated ductbank configuration.

Note: Please refer to General Response GR-1 for graphs depicting the modeling data.

Email from Wesley Skow (PG&E) and copied to Billy Gipson (Park 'N' Fly), Martin Bloom, Hannes Lee, Bill Prince (City of Brisbane), Tom Sparks (City of South San Francisco), Vijay Patel

As noted below PG&E requests the CPUC provide clarifying information regarding the location of the Modified Underground Existing 230 kV Collocation Alternative.

Attached is a map showing the areas that PG&E could use more information from the CPUC; preferably, PG&E requests that CPUC representatives participate in a walk-down of these area and show PG&E in the field the route along these areas since it would allow PG&E to identify the proposed route most accurately and provide the most precise and beneficial DEIR comments. Alternatively, PG&E requests a detailed map showing the propose route through the areas noted below and identified on the attached map.

1. "After traveling on Shaw Road for 0.7 miles, the route would require a bored crossing of a tributary of Colma Creek and travel through a large parking lot east of Golden Gate Produce Terminal for approximately 0.3 miles before joining Produce Avenue. This alternative would turn east and cross below Highway 101 in Airport Boulevard, then turn northeast onto Gateway Boulevard." [C.4.3.3]

   This description implies the line continues along Produce Avenue to Airport Boulevard. The proximity of the bridge, other underground utilities and office complex at the southwest corner of Airport Boulevard and Produce Avenue preclude a bore across the channel; boring underneath the bridge would mostly likely conflict with support piles.

2. "The route would travel along Gateway Boulevard for approximately 1.1 miles, cross Oyster Point Boulevard, and enter a vacant parcel. From this point, the underground alternative route would follow the eastern edge of the UPRR for approximately 1.0 mile into the City of Brisbane to Sierra Point Parkway." [C.4.3.3]

   This description implies the line would be located on the east side of the JPB ROW following it to Sierra Point Parkway. PG&E needs to clarify the location near the pedestrian bridge and fire access that is built over the concrete drainage culvert. DR #5 indicated boring across this

section. A hotel near Sierra Point Parkway is almost adjacent to the ROW; the area between the ROW and hotel is a sloped landscaped bank. DR#5 suggested the line turning east towards Shoreline Court and then to Sierra Point Parkway.

3. "From that point, the route would cross below Highway 101, then leave Sierra Point Parkway and with a bored crossing, traverse under the railroad tracks into Van Waters and Rogers Road (private) for 0.2 miles before joining Bayshore Boulevard." [C.4.3.3]Mileage indicates the line would transition onto Bayshore Boulevard up a steep embankment.

EIR Team Response

Dear Mr. Skow:

This letter responds to your August 5, 2003 e-mail requesting clarifying information regarding the location of the Modified Underground Existing 230 kV Collocation Alternative.

Attached is a detailed map (on 18 sheets) illustrating this alternative route. These maps illustrate the entire alternative route, and will help answer the questions you asked about the route. These maps are not intended to present final engineering, but to illustrate a route that appears to be feasible and that would minimize environmental impacts.

Your specific questions and our responses are below.

1. "After traveling on Shaw Road for 0.7 miles, the route would require a bored crossing of a tributary of Colma Creek and travel through a large parking lot east of Golden Gate Produce Terminal for approximately 0.3 miles before joining Produce Avenue. This alternative would turn east and cross below Highway 101 in Airport Boulevard, then turn northeast onto Gateway Boulevard." [C.4.3.3]

   This description implies the line continues along Produce Avenue to Airport Boulevard. The proximity of the bridge, other underground utilities and office complex at the southwest corner of Airport Boulevard and Produce Avenue preclude a bore across the channel; boring underneath the bridge would mostly likely conflict with support piles.

Response*: See map Sheets 4, 5, and 6. As originally proposed, this alternative would not require a bore below Highway 101 because Airport Boulevard crosses below the highway. However, a route modification in this area is suggested, as defined in the following paragraphs.*

The Colma Creek channel crossed in this location is approximately 60 feet wide and in a concrete-lined channel. Based on our preliminary evaluation of the issues raised in PG&E's comment, we agree that there appear to be constraints to boring north and south along Produce Avenue because bore pits would be difficult to site without encroaching on Caltrans ROW. We have identified potential bore pit locations along Produce Avenue (North/exit pit: in the narrow strip between the eastern street curb and the Caltrans fence. South/entrance pit: immediately west of Produce Avenue in the eastern part of the Shell Station lot, just south of the creek).

Because of the constraints along Produce Avenue and the potential difficulty in siting bore pits, as an option, we are suggesting a modification of the alternative route at this location, as illustrated on map Sheets 4, 5 and 6. A single bore is recommended to cross beneath both Highway 101 and the Colma Creek Tributary, utilizing existing adequate space on both sides of the freeway for bore pits. The route

would then be installed for an additional 0.6 miles on the east side of Highway 101: in Marco Way, and Airport Boulevard between Marco Way and the previously identified freeway undercrossing. This route modification would completely avoid the Park'N'Fly lot and the Produce Terminal.

2. "The route would travel along Gateway Boulevard for approximately 1.1 miles, cross Oyster Point Boulevard, and enter a vacant parcel. From this point, the underground alternative route would follow the eastern edge of the UPRR for approximately 1.0 mile into the City of Brisbane to Sierra Point Parkway." [C.4.3.3]

   This description implies the line would be located on the east side of the JPB ROW following it to Sierra Point Parkway. PG&E needs to clarify the location near the pedestrian bridge and fire access that is built over the concrete drainage culvert. DR #5 indicated boring across this section.

   A hotel near Sierra Point Parkway is almost adjacent to the ROW; the area between the ROW and hotel is a sloped landscaped bank. DR#5 suggested the line turning east towards Shoreline Court and then to Sierra Point Parkway.

***Response**: See map Sheets 10, 11, and 12. It is unclear whether it would be possible to install the transmission line by trenching within the CCSF fire road (immediately west of the pedestrian bridge) due to the presence of drainage pipes below the road. If trenched, the transmission line may be close to the drainage pipes that are below the road. A bored crossing of this area may be required; there is adequate space in parking lots both north and south of the fire road for bore pits.*

Regarding the hotel near Sierra Point Parkway, there are several possibilities for routing in this area: (a) install the transmission line in the landscaped area immediately east of the railroad ROW, (b) install the transmission line within the hotel access road/parking lot just east of the landscaped area (possibly working on weekends to minimize construction impacts to the hotel), or (c) as suggested by PG&E, turn east towards Shoreline Court and then north to Sierra Point Parkway, using parking lots that are further from occupied buildings. These options are illustrated on Sheets 10, 11, and 12.

3. "From that point, the route would cross below Highway 101, then leave Sierra Point Parkway and with a bored crossing, traverse under the railroad tracks into Van Waters and Rogers Road (private) for 0.2 miles before joining Bayshore Boulevard." [C.4.3.3]

   Mileage indicates the line would transition onto Bayshore Boulevard up a steep embankment.

***Response**: As shown on Sheets 12 and 13, there is no transition up a steep embankment required. After crossing below Highway 101 (within the roadway of Sierra Point Parkway), the route would turn northwest, boring under the railroad and into the south end of Van Waters and Rogers Road. The route along this segment could be either west or east of the warehouse buildings along Van Waters and Rodgers road, as illustrated on Sheets 12 and 13.*

We hope that these maps and information will clarify this alternative route and answer your questions.

Sincerely, Billie C. Blanchard

[A set of 18 detailed maps was provided to PG&E and other interested parties. The information on those maps has been incorporated in Figures Ap.1-12a and Ap.1-12b.]

Email from Mark Trail

I have a customer who is using radio frequency devices in a warehouse close to where you are proposing this new power line. How do I go about finding out if the new power line may interfere with my customers radio's.

I would appreciate any information you can give me.

Thank you, Mark S. Trail, Project Manager

EIR Team Response

Mr. Trail -

We have asked our engineering consultant about your question, and following is his reply. Please note also that the Draft EIR includes 2 mitigation measures (PS-1a and PS-1b) that would address radio interference and would require PG&E to address issues created by the new transmission line. You and/or your customer are free to submit comments on the Draft EIR if you are concerned about this issue; comments are due by the end of tomorrow, August 28. Details are provided at the project website: http://www.cpuc.ca.gov/Environment/info/aspen/jefferson_martin/jeffmartin.htm

Typically, the radio interference from 60 Hertz power lines are caused by Corona noise and/or from interference from the towers. The Corona is the buzzing sound you may have heard when near high voltage overhead lines. For underground lines the Corona noise is not nearly as much of an issue. For overhead lines the physical towers (pole or lattice structures) can cause interference do to shadowing or blocking the radio waves. Basically, the transmission towers would have to be between the radio transmitter and receiving source and the towers would have to be very close to either to cause the shadowing effect. There are mitigating techniques that can be used to counter act the effects.

Email from James Goodman

Dear Ms. Blanchard:

Subject to answers to the questions posed below: I oppose PG&E's Proposed Route 1A. I support the Partial Underground Route north of Carolands Substation (through Burlingame and Hillsborough).

I support the undergrounding of the 230kV line along with the existing 60 kV lines at a distance sufficiently far from our homes to result in a milliGauss level of one or less (based on future worst-case load forecasts).

I have a few questions regarding undergrounding that I would like answered. My understanding is that an underground line has to be surrounded by a fluid insulator. Is this true? How much fluid is needed? If there is a breach due to an earthquake, what might be the environmental effects to the watershed? How toxic is the fluid used? If toxic, what measures would be used to contain any leak? If this is a real issue, and only if there might be a real threat to the water supply, then I would have to rethink my support of undergrounding the lines in the watershed. I would then be in favor of moving the lines far enough away from any homes so that EMF levels would be minimal.

Thank you for your consideration. I look forward to your response.

James Goodman, 2228 Cobblehill Place, San Mateo, CA 94402 (Highlands resident)

EIR Team Response

Mr. Goodman -

We have included your comment with the Draft EIR comments, but I also wanted to let you know in answer to your question, that the underground transmission line would NOT be the type cooled with circulating oil. As shown in Draft EIR Table B-1, current technology for underground transmission lines is use of solid dielectric cable, a solid insulated cable that uses resin/polymers for insulation and not oil. So there is no potential for leaks or contamination. Thank you for your interest.

Email from Katie Carlin

Hi Susan,

During informal conversations at the informational meetings on the dEIR in July with Aspen scientists Dryer and Band, it was indicated to me that the issue of serpentine soils, both in terms of asbestos mitigation and post-trenching habitat regeneration, is of some significance down south in Edgewood Park, but is not prohibitively complex, or as much of a problem, in the already disturbed area adjacent homes in the San Mateo Highlands, Hillsborough, and Burlingame.

Could you possibly confirm for me the thinking on this issue in this area, or point me to the section or sections in the Draft EIR where it is addressed?

Thank you so much for your consideration to these matters,

Katie Carlin

EIR Team Response

Katie –

The Draft EIR's discussion of impacts represents the conclusion of the EIR preparers, so your comments should focus on the content of the EIR itself.

1. Regarding impacts from undergrounding in the Partial Underground Alternative in the area between Ralston Substation and Carolands Substation, see Draft EIR Section D.4.4.2 under sub-heading "Underground Segment – Ralston to Carolands Substations" (pages D.4-57 to –58). As stated on pages D.4-58 just above Mitigation Measure B-1j, the impact to serpentine habitats/soils in this area is mitigable to less than significant levels (Class III) with implementation of that mitigation measure.

2. Regarding impacts in/near Edgewood Park, see Section D.4.3.3, starting on page D.4-33 under sub-heading "Serpentine Grassland". On page D.4-34 in the 4th complete paragraph, impacts of the Proposed Project to serpentine grasslands in are determined to be significant (Class I).

The EIR makes no specific comparison of the value of the serpentine habitat in one area vs. another, although the high value of the Edgewood Park & Natural Preserve has been recognized by its protection status (see Draft EIR page D.4-5). I hope this help.

Phone Conversation with Rick Frandsen (280CCC)

Rick Frandsen (Tasco Engineering), representing the 280CCC, discussed EMF field calculations and the SCE Fields.exe program that was used to perform the calculations with EIR team member, K.C. Fagen (RW Beck). There was a discussion regarding the current (amperage) flow in different segments of the line, as well as who performed the EMF calculations for the Draft EIR.

Draft EIR Comments and Responses

This following section, General Responses to Major Comments, addresses issues that were raised by many commenters and that therefore required a detailed response. Each comment set is followed by the corresponding responses. Comment letters are in the following categories:

- Comments from Public Agencies
- Comments from Non-Profit Organizations and Community Groups
- Comments from Private Companies
- Comments from Private Citizens
- Oral Comments from Public Participation Hearings
- Comments from PG&E

Table 2 lists all parties that commented on the Draft EIR, the date of their comments, and the comment set number that defines the organization of responses in this Final EIR.

Table 2. Commenters and Comment Set Numbers
(generally listed by date; multiple letters from one entity are grouped with first letter)

Agency/Affiliation	Name/Title of Commenter	Date of Comment	Draft EIR Comment Set
Public Agencies or Their Representatives			
Town of Colma	Malcolm C. Carpenter, AICP, City Planner	8/14/03	A
City of San Bruno	Larry Franzella, Mayor	8/14/03	B
	George D. Foscardo, AICP, Community Development Director	8/28/03	
	Scott T. Munns, P.E., Public Works Director	8/28/03	
	George D. Foscardo, AICP, Community Development Director (response to CPUC request for clarification)	9/23/03	
City of Daly City	Stan Gustavson, City Attorney	8/15/03	C
City of Burlingame	Michael Coffey, Mayor	8/15/03	D
	Michael Coffey, Mayor	8/26/03	
Burlingame School District	Dr. Sonny H. Da Marto, Superintendent	8/27/03	E
California State Senate	Senator Jackie Speier	8/25/03	F
Town of Hillsborough	Michael Meloni, Public Works Director	8/25/03	G
City of South San Francisco	Thomas C. Sparks, City Planner	8/27/03	H
Peninsula Corridor Joint Powers Board	Bernard Susanto, Senior Engineer	8/28/03	I
Caltrain	Corinne Goodrich, Manager of Strategic and Long Range Planning	8/28/03	J
City of Millbrae	Ralph E. Petty, Comm. Development Director	8/25/03	K
	Ralph E. Petty, Comm. Development Director	8/27/03	
	Ralph E. Petty, Comm. Development Director	8/29/03	
California ISO	Gary DeShazo, Regional Transmission Manager	8/28/03	L
Midpeninsula Regional Open Space District	L. Craig Britton, General Manager	8/28/03	M
National Park Service, Golden Gate National Recreation Area	Brian O'Neill, General Superintendent	8/28/03	N

Table 2. Commenters and Comment Set Numbers
(generally listed by date; multiple letters from one entity are grouped with first letter)

Agency/Affiliation	Name/Title of Commenter	Date of Comment	Draft EIR Comment Set
City and County of San Francisco	Joseph P. Como, Deputy City Attorney	8/28/03	O
CCSF, SFPUC	Joanne Wilson, Land and Resources Planner	8/28/03	
California Department of Transportation	Timothy C. Sable, District Branch Chief	8/26/03	P
City of Brisbane	Cyril G. Bologoff, Mayor	9/18/03	Q
County of San Mateo	Thomas F. Casey III, County Counsel	9/12/03	R
	Supervisors Jerry Hill and Mike Nevin	9/18/03	
California Department of Fish & Game	Robert W. Floerke, Regional Manager	9/11/03	S
U.S. Fish & Wildlife Service	Roberta Gerson, Acting Deputy Assistant Field Supervisor	9/15/03	T
Community Groups / Non-Profit Organizations			
Environmental Justice Advocacy	Francisco Da Costa	7/29/03	CC1
San Francisco Community Power Cooperative	Steven Moss, Executive Director	8/15/03	CC2
The San Mateo Highlands Community Association	Cliff Donley, President	8/26/03	CC3
Sequoia Audubon Society	Leslie Flint, Conservation Committee	8/27/03	CC4
People for a GGNRA	Amy Meyer, Co-Chairman	8/27/03	CC5
Committee for Green Foothills	Lennie Roberts, Legislative Advocate	8/28/03	CC6
Sierra Club, Loma Prieta Chapter	Melissa Hippard, Conservation Representative Kurt Newick, Global Warming & Energy	8/28/03	CC7
For Future Generations	Joyce M. Eden	8/28/03	CC8
Brisbane Chamber of Commerce	Richard B. Kerwin, President	9/15/03	CC9
South San Francisco Chamber of Commerce	Greg Cochran, Executive Director	9/18/03	CC10
Private Companies			
Cal-Rite Services	Daryl Whiteley, Vice President	8/26/03	CC11
VWR International	Dan Ambrose, Regional Distribution Manager	8/27/03	CC12
	Dan Ambrose, Regional Distribution Manager	9/3/04	
Mills Peninsula Hospital	Robert Merwin, Chief Executive Officer	8/28/03	CC13
Park'N Fly	Billy G. Gipson	9/9/03	CC14
Oyster Point Owners Association	Hanns Lee, Director and Secretary	9/12/03	CC15
Ross, Hackett, Dowling, Valencia & Walti (Golden Gate Produce Terminal)	Michael J. Valencia	9/18/03	CC16
Public Participation Hearings			
August 12, 2003 Transcripts	Various	8/12/03	PPH1
August 14, 2003 Transcripts	Various	8/14/03	PPH2
Private Citizens or Groups of Citizens			
n/a	William and Dorothy Goff	4/14/03	1
n/a	Karen Olsen Stern and Irving Stern	7/3/03	2
		8/4/03	3
		8/26/03	4
n/a	Don Billings	7/18/03	5
n/a	Mariam and John Graham	7/17/03	6
n/a	Pokerized4@aol.com	7/23/03	7
n/a	David Krakower	7/30/03	8

Table 2. Commenters and Comment Set Numbers
(generally listed by date; multiple letters from one entity are grouped with first letter)

Agency/Affiliation	Name/Title of Commenter	Date of Comment	Draft EIR Comment Set
n/a	Donald J. and Rose McFarland	8/6/03	9
n/a	Ed and Elsie Carlson	8/8/03	10
Letter Opposing Option 1B	Various - see names listed below following the table	8/12/03	11
n/a	Sarkis Sarkisian	8/12/03	12
	(*8/15/03 letter is additional comments to the Burlingame form letter)	8/24/03	13
		9/18/03	
n/a	Dr. Cheol Hoon Lee	8/12/03	14
n/a	Cheol Hoon Lee and Tony Lee	8/13/03	15
n/a	Kathy Battat	8/18/03	16
n/a	Ron Small	8/18/03	17
n/a	Diane Hong	8/18/03	18
n/a	Barbara Parvis	8/18/03	19
n/a	Ruth E. Jacobs	8/20/03	20
n/a	Scott Buschman	8/21/03	21
n/a	Rosemarie Lashkoff	8/21/03	22
n/a	David and Diane Willoughby	8/21/03	23
Letter Opposing Option 1A. Includes fax from Washington Elementary School (Burlingame School District)	Various - see names listed below following the table	8/21/03	24
Letter Supporting the Watershed Restoration Alternative	Various - see names listed below following the table	8/23/03	25
n/a	Deane Thomas	8/23/03	26
n/a	James Goodman	8/23/03	27
n/a	Glen Hout and Carrie Hout	8/24/03	28
n/a	Sandra Treanor	8/24/03	29
n/a	Gregory Stein	8/24/03	30
Petition of Concerned Residents of Burlingame opposing Option 1B and supporting the Partial Underground Alternative	Various - see names listed below following the table	8/25/03	31
n/a	Mr. and Mrs. Paul Ratto	8/25/03	32
n/a	Calvin & Ellen Inori, 1309 Skyview Dr Jean & Gladys Bartlett, 1348 Skyview Dr David Inori, 1309 Skyview Dr Douglas & Kaeko Inori, 1309 Skyview Dr	8/25/03	33
n/a	Aki and Carol Eejima	8/25/03	34
n/a	Ann Poncelet, M.D.	8/25/03	35
n/a	David and Dale Loutzenheiser	8/26/03	36
n/a	Bennett Bibel	8/26/03	37
n/a	Burt Treanor	8/26/03	38
n/a	Kris M. O'Neil	8/26/03	39

Table 2. Commenters and Comment Set Numbers
(generally listed by date; multiple letters from one entity are grouped with first letter)

Agency/Affiliation	Name/Title of Commenter	Date of Comment	Draft EIR Comment Set
Davis Wright Tremaine LLP (280 Corridor Concerned Citizens Group)	Christopher A. Hilen, Counsel	8/27/03	40
	Christopher A. Hilen, Counsel (Response to Data Request Regarding Watershed Restoration Alternative)	9/18/03	
n/a	Michael Nagle Jean Connolly (2 separate letters)	8/27/03	41
n/a	Richard Cole	8/27/03	42
n/a	Jacqui Moore Lopez	8/27/03	43
n/a	Dennis Tom, M.D.	8/27/03	44
n/a	Laura Nagle	8/27/03	45
n/a	Ralph and Doris Voice	8/27/03	46
n/a	Lee Cauble Lahoz	8/27/03	47
n/a	Edward and Susanne Li	8/27/03	48
n/a	Ronald Schaffner	8/27/03	49
n/a	Maureen Olson	8/27/03	50
n/a	Tom Roberts	8/27/03	51
n/a	Nuri Otus	8/28/03	52
n/a	Erika and Ivan Crockett	8/28/03	53
n/a	Richard and Barbara Kuersteiner George T. Lenehan (2 separate letters)	8/28/03	54
n/a	Bettina and Stephen Holquist	8/28/03	55
n/a	Kurt Newick	8/28/03	56
n/a	Pamela S. Merkadeau	8/28/03	57
n/a	Les Kratter	8/28/03	58
n/a	Phil and Arline Dixon	8/28/03	59
n/a	Esther Emergui Gillette	8/28/03	60
n/a	Brigitte and Pete Shearer	8/28/03	61
n/a	Harvey Schmit	8/28/03	62
n/a	Marilee Minkel	8/28/03	63
n/a	Richard S. Darling and Ann M. Darling	8/28/03	64
n/a	Brad Strutner	10/5/03	65
n/a	Gabrielle Crawford	10/8/03	66
Applicant			
Latham & Watkins (for PG&E)	Wesley Skow	9/5/03	PG
	Wesley Skow (Supplemental Comments 1)	9/12/03	
	Sarah Esmaili (Supplemental Comments 2)	9/19/03	

Following is a listing of the names of parties that signed petitions or group letters referenced above in Table 2.

#11. 8/12/03 Letter Opposing Option 1B

Gina Mallough, 2925 Trousdale Dr
Hawklin Chuh
Albert Keuftedjian
Thomas & Patricia Charkins Milan T & Marguerite Pazin
Lorraine Franke
Li Ling Lue
L___ [name not legible, no address supplied]
Anita M. O'Donnell (2 ltrs)
Dorothy & Paul Ratto (2 ltrs)
Evelyn Perkins
Dale Dr Perkins
Christy P. Armstrong
Morton H. & Hilda Owens
Ingrid & M. Afshar
Joan & Marvin Silver
Eileen Marchasin
Isac Marchasin
Wilbur Gloe
Jason and Georgia Sawyer
Frances M Clarkson
Jose F. Campos (dated 8/13/03)
Charlene Ann Campos (dated 8/13/03)
Anita Powers (dated 8/20/03)

#24. 8/13/03 Letter Opposing Option 1A (includes fax from Washington Elementary School)

Kathy Battat, 524 Craig Rd
Rick Platt, 575 Craig Rd
Marvin Wong, 535 Pullman Rd
Stacey Garibaldi, 565 Craig Rd
Phil Battat, 524 Craig Rd
Georgia Burness, 1308 Skyview Dr
Frank N Gibson, 1337 Skyview Dr
Gladys Bartlett, 1348 Skyview Dr
Jean Bartlett, 1348 Skyview Dr
Brian Brown, 1332 Skyview Dr
Mary Brown, 1332 Skyview Dr
Steve Tsurodone, 1300 Skyview Dr
J. L. Thrasher, 1324 Skyview Dr
Maurice Benowiz, 1312 Skyview Dr
Patty McDonald, 1340 Skyview Dr
Hea Sook Sang, 1304 Skyview Dr
Leona Marini, 1344 Skyview Dr
Lou Marini, 1344 Skyview Dr
Sunit Gala, 1345 Skyview Dr
Tiffany Leung, 1300 Skyview Dr
Ellen Inori, 1309 Skyview Dr
Calvin Inori, 1309 Skyview Dr
Stephen Holquist, 1305 Skyview Dr
Kaeko Inori, 1309 Skyview Dr
Doug Inori, 1309 Skyview Dr
Mike Schenori, 1341 Skyview Dr
Virginia Gibson, 1337 Skyview Dr
Hugh T. Vick, 1301 Skyview Dr
Alberta L. Vick, 1301 Skyview Dr
Bob A. Gutierrez, 1871 Lexington Ave
Michael D. Kaplan, 1879 Lexington Ave.
Dorothy R. Greene, 1879 Lexington Ave
John M. White, 1904 Lexington Ave
Guyol Sara H, 1912 Lexington Ave
John Cutter, 1912 Lexington Ave
William T. Insley, 1942 Lexington Ave
Peggy Insley, 1942 Lexington Ave
Lynne M Dempsey, 1956 Lexington Ave
Waldon Woo, 1976 Lexington Ave
Catherine Louise Glahn, 1976 Lexington Ave
William Gomba 1984 Lexington Ave
Dennis Allen, 1996 Lexington Ave
Sara Downall, 1887 Lexington Ave
Barry M. Downall, 1887 Lexington Ave
Pearly Masters, 1871 Lexington Ave.
Anne Risberg, 1895 Lexington Ave
Sullivan George M, 1895 Lexington Ave
Greg Phillips, 1911 Lexington Ave
Ellen Phillips, 1911 Lexington Ave
Andrew Brenneman, 1919 Lexington Ave
Karen Brenneman, 1919 Lexington Ave
Carol Elms, 5 Shelbourne Pl
Erika Crockett, 2004 Lexington Ave
Ivan Crockett, 2004 Lexington Ave
Oliver D. Frank, 1928 Lexington Ave
Nicole Lum, 1545 Bairn Dr
Michael Lee, 38 Terrier Pl
Cynthia Lee, 38 Terrier Pl
William B. Freedman, 40 Terrier Pl
Louise Freedman, 40 Terrier Pl
Joan L. Jones, 20 Terrier Pl
Dale Lum, 1545 Bairn Dr
Alice Chan, 308 Darrell Rd
Jonathan Goodner, 316 Darrell Rd

Debra Kemper, 309 Darrell Road
Barbara Agee, 310 Darrell Rd
Richard Agee, 310 Darrell Rd
Jerrold Kaplan, 355 Darrell Rd
Bahman Zohuri, 363 Darrell Rd
Carole Terwilliger, 372 Darrell Rd
Kent Shepherd, 460 Darrell Rd
Stephen Kemper, 309 Darrell Road
Louise Austin, 309 Darrell Rd
Terrence Austin, 309 Darrell Rd
Lolita Frank, 1928 Lexingon Av
Kate Hamel, 1920 Lexington Av
Biruta Sereda, 1872 Lexington Ave
Glenn Carlson, 2012 Lexington Av
Maria Carlson, 2012 Lexington Av
Susan Engle, 20 White Plains Ct
Ora Jean Fellows, 1920 Ticonderoga
William & Christina Wu, 1911 Ticonderoga Dr
Alice T. Carhart, 1935 Ticonderoga Dr
Margaret Kujiraoka, 1944 Ticonderoga Dr
George Kujiraoka, 1944 Ticonderoga Dr
Kaiching Pao, 1943 Ticonderoga Dr
Yihching Pao, 1943 Ticonderoga Dr
C. Jang, 1959 Ticonderoga Dr
S. Jang, 1959 Ticonderoga Dr
Chris Lowell, 1967 Ticonderoga Dr
Robert Johnson, 30 Amboy Ct
Karla Robertson, 20 Amboy Ct
David Robertson, 20 Amboy Ct
Steven Spencer, 1967 Ticonderoga Dr
Jordan Hiller, 1983 Ticonderoga Dr
G. Merson, 1952 Ticonderoga Dr
Mark S. Hintani, 2290 Sheraton Pl
Dale Hintani, 2290 Sheraton Pl
C. Develino, 2224 Sheraton Pl
L. Demsote, 2236 Sheraton Pl
K. Evans, 2243 Sheraton Pl
A. Evans, 2243 Sheraton Pl
D. Powers, 2289 Sheraton Pl
J. Powers, 2289 Sheraton Pl
Akihiro Takagi, 2018 Ticonderoga Dr
Miyuki Takagi, 2018 Ticonderoga Dr
Steve Gehre, 2027 Ticonderoga Dr
Martha Gehre, 2027 Ticonderoga Dr
Louise Tobin, 2031 Ticonderoga Dr
Charles Ritter, 2048 Ticonderoga Dr
Mel Schwartz, 2055 Ticonderoga Dr
Ray Marangosian, 2055 Ticonderoga Dr
Hilda Marangosian, 2055 Ticonderoga Dr
C. R. Schuddebon, 2039 Ticonderoga Dr
Elizabeth Sheehy, 2035 Ticonderoga Dr
Daniel F. Becker, 2035 Ticonderoga Dr
C. Bell, 2059 Ticonderoga Dr
Deborah Tobin, 2067 Ticonderoga Dr
Lila Lynn Humphrey, 2075 Ticonderoga Dr
Myroyn Humphrey, 2075 Ticonderoga Dr
Pantea Tadayoni, 2296 Cobblehill Pl
Fariborz Saniec, 2296 Cobblehill Pl
Stephen Slinkor, 55 Hoods Point
Lynda Miller, 55 Hoods Point
Bob McCormick, 2011 New Brunswick Dr
John Goble, 2007 New Brunswick Dr
Joan Goble, 2007 New Brunswick Dr
John R. Goble, 2007 New Brunswick Dr
Robert Meagher, 2004 New Brunswick Dr
Evelyn P. Kaplan, 30 White Plains Ct
Elizbeth Plachy, 10 White Plains Ct
Jeannete Whitcomb, 2260 Cobblehill Pl
Robert C. Wineland, 2260 Cobblehill Pl
Sylvia Merkadeau, 2051 New Brunswick Drive
Thrity Master, 2216 Cobblehill Pl
Eiroz B. Master, 2216 Cobblehill Pl
Corrin Brown, 15 Woodcreek Ct
Joha Emmons, 25 Woodcreek Ct
Pam Emmons, 25 Woodcreek Ct
Lowe Family, 25 Woodcreek Ct
Shizuo Ozaki, 2084 New Brunswick Dr
Yejaid Hevda, 2076 New Brunswick Dr
Evelyn Jefferson, 2076 New Brunswick Dr
[illegible], 2068 New Brunswick Dr
Janice Miller, 2060 New Brunswick Dr
Levin Dunne, 2052 New Brunswick Dr
Rick Priolo, 2032 New Brunswick Dr
Wendy Ryder, 2032 New Brunswick Dr
Susan K. Diamonnd, 2028 New Brunswick Dr
Larry Kang, 1860 Lexington Ave
Lynn Pontaco, 2207 Allegheny Way
A. Faulkner, 2211 Allegheny Way
Bob & Liz Olson, 2227 Allegheny Way
Bryan Young, 2235 Allegheny Way
Amy Primus, 2235 Allegheny Way
Mario Siguenza, 2252 Allegheny Way
Georg Bremer, 2259 Allegheny Way
Gerald Puk, 2290 Allegheny Way
C. Kong, 2290 Allegheny Way
B. Reed, 2289 Allegheny Way
Brenda Boenzi-Reed, 2289 Allegheny Way
Wiliam H. Mahncke, 2295 Allegheny Way
Victor Tan, 2128 Lexington Ave
Sue Smith, 2120 Lexington Ave
Shawn ONeil, 2112 Lexington Ave
Kathy O'Neil, 2112 Lexington Ave
Doris Paiva, 2090 Lexington Ave
Patricia Shaalman, 2084 Lexington Ave

Grace Dunbar, 2076 Lexington Ave
Mike Ayer, 2052 Lexington Ave
Richard H. Cook, 2044 Lexington Ave
Lian Gould, 2036 Lexington Ave
John H. Johnson, 2028 Lexington Ave
Jane Johnson, 2028 Lexington Ave
Young Kim, 1860 Lexington Ave
Patricia Schroeter, 2096 Lexington Ave
James Nemschoff, 2020 Lexington Ave
Florence Yuen, 2068 Lexington Ave
Betty Jue, 2128 Lexington Ave
Karla Jones, 2104 Lexington Ave
Jane M. Andersen, 2136 Lexington Ave
John and Lauren Black, 2276 Allegheny Way
Mark Trafficante, 2236 Allegheny Way
Mary Rowley, 2284 Allegheny Way
Anne Higginbotham, 2215 Allegheny Way
Pi Ling Fan, 2244 Allegheny Way
Mark Trafficante, 2236 Allegheny Way
Angela Tsai, 5 Turtle Bay Pl
Nancy R. Bott, 25 Turtle Bay Pl
Howard D. Bott, 25 Turtle Bay Pl
Wendy Chan, 40 Shelburne Pl
Bob Leu, 10 Turtle Bay Pl
Wendy Chan, 40 Shelburne Pl
Clifford E. Donley, 30 Shelburne Pl
Patricia L. Donley, 30 Shelburne Pl
Peggy Levikow, 20 Shelbourne Pl
Althea Ehrman, 10 Shelbourne Pl
Harold Norton, 15 Powhatan Pl
Lynne Norton, 15 Powhatan Pl
Milton Jines, 1752 Monticello Rd
Sunee S. Jines, 1752 Monticello Rd
Debbie Cooper, 40 Powhatan Pl
Robert Cory Cooper, 40 Powhatan Pl
Anthony Kwee, 20 Powhatan Place
Deborah Cogswell, 1676 Lexington Ave
Meghan Cogswell, 1676 Lexington Ave
William S. Cogswell, 1676 Lexington Ave
Leona Spice, 10 Powhatan Pl
Ruth Anderson, 25 Powhatan Pl
Cathy Krause, 35 Burgoyne Ct
Ed Krause, 35 Burgoyne Ct
Jim Scherer, 40 Burgoyne Ct
Eunice Scherer, 40 Burgoyne Ct
Robert Kennedy, 30 Burgoyne Ct
June Higashi, 30 Burgoyne Ct
Dennis Fitzpatrick, 5 Burgoyne Ct
Ray Mendez, 15 Stoney Point Pl
Mona Cerini, 20 Stoney Point Pl
R. Rink, 20 Stoney Point Pl
Louis Burton, 20 French Creek Pl
Theresa Burton, 20 French Creek Pl
Marisa Burton, 20 French Creek Pl
Christine Roman, 30 French Creek Pl
Rajesh Vashisat, 30 French Creek Pl
Rich Stephens, 25 French Creek Pl
Fran Stephens, 25 French Creek Pl
S. Shepard, 5 French Creek Pl
Jo Anne Nass, 2235 Sherman Pl
Barbara J. Ross, 25 Roxbury Lane
Perla C. Schmidt, 1676 Yorktown Rd
Benji Friedman, 25 Burgoyne Ct
James Higgins, 1471 Laurel Hill Dr
Daniel Friedman, 25 Burgoyne Court
Julie Bauman, 1595 Lexington Ave
Lillian Bayles, 1592 Lexington Ave
E. A. Kirschner, 1591 Lexington Ave
Chris Charleston, 1568 Lexington Ave
R. Killen, 1416 Lexington Ave
Paul Lunardi, 1421 Lexington Ave
Mel Friedman, 25 Burgoyne Court
Sherie Friedman, 25 Burgoyne Court
Phyllis Garratt, 1736 Lexington Ave
M. W. Garratt, 1736 Lexington Ave
Jane Tatchell, 1732 Lexington Ave
Shizuki Ogawa, 1724 Lexington Ave
Patricia J. Doolittle, 1744 Lexington Ave
Mike Nagle, 1756 Lexington Ave
Margaret M. Flynn, 1760 Lexington Ave
Stephanie Flynn, 1760 Lexington Ave
Karen Jarnagin, 1759 Yorktown Road
Ralph & Doris Voice, 1776 Lexington Ave
Marlo Condi, 1784 Lexington Ave
Walter Wong, 1831 Lexington Ave
Theodore Sana, 1783 Lexington Ave
Bonwein Smits-Sana, 1783 Lexington Ave
Ron Kiaaina, 1763 Lexington Ave
Venus D'Amore, 1790 Lexington Ave
Paul Marinelli, 1790 Lexington Ave
Giovanni Agnoli, 1740 Lexington Ave
Katie Carlin, 1740 Lexington Ave
Agnes A. Serra, 2068 Ticonderoga Dr
Valerie Tamale, 2076 Ticonderoga Way
Zoe Witherspoon, 2096 Ticonderoga Way
Elizabeth Kiuel, 2112 Ticonderoga Way
Mildred Jayce, 2295 Cobble Hill
R. Walcha, 2279 Cobble Hill
Frieda Tomlin, 2259 Cobble Hill
Rebekah Hazen, 2271 Cobble Hill Pl
Yan Lange, 2215 Cobble Hill Pl
Gertrude M. Huygen, 2230 Cobble Hill Pl
Joseph Karie, 2189 Cobble Hill Pl
Rick Alderman, 10 Woodcreek Ct

Ruth Nishihara, 2089 New Brunswick Dr
Sam Naifeh, 2059 New Brunswick Dr
Gail Oshima, 2043 New Brunswick Dr
Leonard K. Hashtame, 2043 New Brunswick Dr
Marcia Pagels, 2031 New Brunswick Drive
Rolf Beler, 2027 New Brunswick Dr
Florence Beler, 2027 New Brunswick Dr
Rosalind M. Chan, 10 Hoods Point Way
Ethel Anita Gamm, 20 Hoods Point Way
Carolyn Bookspun, 30 Hoods Point Way
Arnold Bookspun, 30 Hoods Point Way
Cornelia S. Fitzgerald, 50 Hoods Point Way
H. Donati, 25 Hoods Point Way
Janet Fuller, 60 Hoods Point Way
Lars Fuller, 60 Hoods Point Way
Kay Aviani, 2015 New Brunswick Dr
Bonnie Carion, 2003 New Brunswick Dr
William Plachy, 10 White Plains Ct
Carla Cornaglia, 2076 Lexington Ave
Roger Ashbaugh, 2060 Lexington Ave
Ella Young, 1768 Lexington Ave
Henry Young, 1768 Lexington Ave
Richard Wisniewski, 15 White Plains Ct
Ursula Wisniewski, 15 White Plains Ct
Chris Wisniewski, 15 White Plains Ct
Julia Wisniewski, 15 White Plains Ct
Nancy Risso, 25 White Plains Ct
Steve Risso, 25 White Plains Ct
Winston Thomas, 40 White Plains Ct
Deanne Thomas, 40 White Plains Ct
Sam G. Mah, 2297 Bunker Hill Dr
Les Schlaegel, 2261 Bunker Hill Dr
Carl Trondheim, 2257 Bunker Hill Dr
Leonore Coyne, 2253 Bunker Hill Dr
Kevin McGowan, 2245 Bunker Hill Dr
Jennifer Tan, 2233 Bunker Hill Dr
Irene Muira, 2225 Bunker Hill Dr
Doris Childs, 2197 Bunker Hill Dr
Patsy Allen, 2290 Bunker Hill Dr
Tim Kobe, 2285 Bunker Hill Dr
Jil Kobe, 2285 Bunker Hill Dr
Tabatha Faust, 2285 Bunker Hill Dr
David H. Goncharoff (dated 8/23/03)

#25. Letter Supporting the Watershed Restoration Alternative

Jane Weidman, 30 Powhatan Pl
Susan Drew, 3344 El Sobrante
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Kelly Tam, 2116 Ticonderoga
Mitchell Tam, 2116 Ticonderoga
Linda Harris, 1587 Forge Rd
Noreen Hui, 1343 Bel Aire Rd
Nancy Lauthier, 1500 Overland Dr
Catherine Palter, 2035 Queens Lane
Carol Cross Phillips, 1724 Los Altos Dr
John Phillips, 1724 Los Altos Dr
Lee Cauble Lahoz, 1595 Forge Rd
Menghis Bairu, 15 Turtle Bay
Zewdi Melronen, 15 Turtle Bay
Geraldine Boxer, 1819 Canyon Oak Ct
Gordon Straughn, 1819 Canyon Oak Ct
Robin Gingold, 1400 De Anza Blvd
Ed Barney, 1729 Los Altos Dr
Margaret Glonstad, 143 McLellan Ave
Kandace Torreano, 2020 Fairmont
Lauren Mayer, 3227 Countryside
Larry Li, 515 Clark Dr
Brigitte S. Shearer, 1577 Brandywine
John Peter Shearer, 1577 Brandywine
Marian Sosnick, 1605 Ascension Dr
Joan Helrey Hughes, 14553 Enchanted Way
Randi Brissman, 1927 Parrott Dr
Dawn Mitchell, 2100 Bunker Hill
Durelle Schacter, 1424 Rainbow Dr
Keith Goldberg, 2072 Queens Lane
Michael May, 53 Lakewood
Lee Anne Mau, 2396 Newport St
Catherine Tong, 1367 Bel Aire Rd
Patty Tobin, 22 Parrot Ct
Judy Chen Kwee, 20 Powhatan Place
Erika Kwee, 20 Powhatan Pl
Nichole Kwee, 20 Powhatan Pl
Travis Kwee, 20 Powhatan Pl
Francesca Lombardo, 570 Barbara Way (separate letter)
Jean Tom, 1585 Marlborough Rd
Victoria Evans, no address given
Stephen & Kristine Shannon, 20 Hampton Ct
Stanley Hong, 1575 Tartan Trail Road
Warren S. Wolfeld, 1515 Oak Rim Dr
Joanne Wolfeld, 1515 Oak Rim Drive
Tina Jin, no address given
Steven & Ana Davis, 35 Mosswood Rd
Jeannette Olechowski, 150 Bella Vista
Kay Perrando, 536 Craig Rd
Edward W. Torello, 541 Craig Rd
Richard Beames, 527 Craig Rd
Joan Fox, 521 Craig Rd
William C. Hill, 515 Craig Rd
Audrey B. Hill, 515 Craig Rd

A. Montalvo, 509 Craig Rd
Victoria Montalvo, 509 Craig Rd
Richard Platt, 575 Craig Rd
Phil Battat, 524 Craig Rd
Kathy Battat, 524 Craig Rd
Stephen Kemper, 309 Darrell Road
Debra Kemper, 309 Darrell Road

#31. Petition of Concerned Residents of Burlingame opposing Option 1B and supporting the Partial Underground Alternative

Jose F. Campos
Ruth E. Jacobs, 2965 Arguello Dr
Terry Fang, 2641 Trousdale Dr
Jack Fang, 2641 Trousdale Dr
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Denise Deghi, 2966 Arguello Dr
Aline Fox, 2974 Arguello Dr
Richard Fox, 2974 Arguello Dr
Lolita Rossi, 3019 Arguello Dr
Robert D. Jacobs, 2965 Arguello Dr
Richard L. Arrighi, 2950 Arguello Dr
Walt Kaloud, 2933 Arguello Dr
Emilio Rossi, 3019 Arguello Dr
Gordon Bruce, 2957 Arguello Dr
John Meyer, 2949 Arguello Dr
Elena Ruiz, 1727 Marco Polo Way #2
Sunny Trammell, 2 Park Rd
Leslie C. Merrell, 1721 Marco Polo Way #7
Shireen Afshar, 117 Park Rd #302
Ramona T Mercer, 1809 Ashton Ave
Lewis P Mercer, 1809 Ashton Ave
Ancora S. Harschel, 8 Mariposa Ct
Jonas C. Harschel, 8 Mariposa Ct
Hom Marlene C, 1805 Ashton Ave
Hom Russell L, 1805 Ashton Ave
Francis Chang, 1817 Sebastian Dr
Donna Chang, 1817 Sebastian Dr
Anthony Yeung, 2960 Trousdale Dr
Esther Tam, 2960 Trousdale Dr
Albert Moisio, 1813 Sebastian Dr
Norma Moisio, 1813 Sebastian Dr
Elaine Sorenson, 2857 Mariposa Dr
Bernice Schwarz, 1813 Ashton Ave
George Schwarz, 1813 Ashton Ave
Paula K. Schwarz, 1813 Ashton Ave
Selina E Soo, 1822 Hunt Dr
Malvin Wong, 1811 Sebastian Dr
Charles W Bradley, 2965 Trousdale Dr
Milan T Pazin, 2500 Trousdale Dr
Marguerite Pazin, 2500 Trousdale Dr
Gina Mallough, 2925 Trousdale Dr
Gerald K. Sui, 2629 Trousdale Dr
Kelly Sui, 2629 Trousdale Dr
Kathy Chen, 2813 Trousdale Dr
Chiao Sun Chen, 2813 Trousdale Dr
Joyce Chen, 2813 Trousdale Dr
David Chen, 2813 Trousdale Dr
Gino J Benetti, 2732 Trousdale Dr
Anne T Benetti, 2732 Trousdale Dr
Aaron E Chilcoat, 2804 Trousdale Dr
Frances M Chilcoat, 2804 Trousdale Dr
Theresa Huebmer, 1708 Davis Dr
Charles M. Huebmer, 1708 Davis Dr
Philip J. Peters, 117 Park Rd #103
Sheena A. Peters, 117 Park Rd #103
Jeffrey L. Bernstein, 2836 Mariposa Dr
Sue E. Bernstein, 2836 Mariposa Dr
Zachary J. Bernstein, 2836 Mariposa Dr
Shirley O'Neill, 3015 Atwater Dr
Susan Knudsen, 2917 Mariposa Dr
Carl A Knudsen, 2917 Mariposa Dr
Ray Lombardi, 1612 Lassen Way
Frank Cooke, 1717 Sequoia Av
Antoinette Galindo, 2108 Adeline Dr
Christine Lee, 1825 Sebastian Dr
Peggy Chan, 3024 Rivera Dr
Patricia Rebstock, 1842 Hunt
Eugene Rebstock, 1842 Hunt Dr
Anne Rebstock, 112 Balboa Av
Geraldine Rolandson, 1855 Capistrano Way
Lorraine Franke, 2160 Trousdale Dr
Li Ling Lue, 2605 Trousdale Dr
Hawklin Chuh, 2622 Trousdale Dr
Margaret Chuh, 2622 Trousdale Dr
Anita M O'Donnell, 2186 Trousdale Dr
Richard O'Donnell, 2816 Trousdale Dr
Valwyn G Fletcher, 2648 Trousdale Dr
Gracia A. Fletchers, 2648 Trousdale
Dorothy Ratto, 2930 Trousdale Dr
Paul Ratto, 2930 Trousdale Dr
Christy P. Armstrong, 3040 Trousdale Dr
Mary M. Herman, 1547 Alturas Dr
Albert Keuftedjian, 2712 Trousdale
John K Armstrong, 41 Crystal Ter
Hermine Armstronxg, 41 Crystal Ter
George Keufledjian, 21 El Quanito Way
Debra Keufledjian, 21 El Quanito Way
John Jones, 3000 Trousdale Dr

Mike Afshar, 3015 Trousdale Dr
Ingrid Afshar, 3015 Trousdale Dr
Abdullah Al-Tamga, 1664 Skyline Blvd
Cynthia Al-Tamga, 1664 Skyline Blvd
Evelyn Perkins, 3010 Trousdale Dr
Dale Perkins, 3010 Trousdale Dr
Marvin Silver, 3005 Trousdale Dr
Joan Silver, 3005 Trousdale Dr
Sarkis S Sarkisian, 2955 Trousdale Dr
Anahid Sarkisian, 2955 Trousdale Dr
Morton H Owens, 2853 Trousdale Dr
Hilda Owens, 2853 Trousdale Dr
Jane Haddad, 831 Crossway Rd
Laila Mousa, 2829 Trousdale Dr
Joseph C Altizer, 2823 Trousdale Dr
Pilar R Altizer, 2823 Trousdale Dr
Mark Joseph Altizer, 2823 Trousdale Dr
Jane Haddad, 831 Crossway Rd
Annie Tang, 2812 Trousdale Dr
Benjamin Kwok, 2809 Trousdale Dr
Hidy Kwok, 2809 Trousdale Dr
Dennis Song, 2625 Trousdale Dr
Aileen Song, 2625 Trousdale Dr
K.C. Sung, 2625 Trousdale Dr
Rose Tse, 2625 Trousdale Dr
Teresa Sung, 2625 Trousdale Dr
Joseph M Hamblin, 2998 Mariposa Dr
Virginia A Hamblin, 2998 Mariposa Dr
Anne L Jones, 3000 Trousdale Dr
Raymond F Mauss, 1837 Hunt Dr
Eileen A Mauss, 1837 Hunt Dr
Alwin Chan, 2940 Trousdale Dr
Harlan C. Richardson, 1724 Quesada Way
Florence Richardson, 1724 Quesada Way
Louis Lim, 3067 Mariposa Dr
Frances M Clarkson, 2700 Trousdale Dr
Jason C Sawyer, 2609 Trousdale Dr
Georgia Sawyer, 2609 Trousdale Dr
Richard H Hanson, 1806 Sebastian Dr
Marilyn J Hanson, 1806 Sebastian Dr
Rick Hanson, 1806 Sebastian Dr
Oliver Chin, 3027 Mariposa Dr
Virginia Chin, 3027 Mariposa Dr
Russell D McGovern, 1812 Hunt Dr
Nancy A McGovern, 1812 Hunt Dr
Phyllis M. Carlson, 2844 Mariposa Dr
Maggie Huang, 2839 Mariposa Dr
Annie Chang, 11 Mariposa Ct
Terence W Yu, 2705 Trousdale Dr
Vivian Truong, 2705 Trousdale Dr
Leonard G Jeong, 1800 Castenada Dr
Sharlene R Chinn, 1800 Castenada Dr
Sharlene R Chinn, 1800 Castenada Dr
Christopher Jeong, 1800 Castenada Dr
Nicole Jeong, 1800 Castenada Dr
Dean Fantham, 1825 Castenada
Yvette Fantham, 1825 Castenada
Alba B. Grodner, 2977 Mariposa Dr
John Cassanego, 2621 Martinez Dr
Rina Cassanego, 2621 Martinez Dr
Lola Marie Leonelli, 2652 Trousdale Dr
Leonelli Cherubino J, 2652 Trousdale Dr
Leonelli Lola Marie, 2652 Trousdale Dr
William Ren, 1817 Ashton Av
John A Shevchuk, 2822 Trousdale Dr
Rufina Shevchuk, 2822 Trousdale Dr
Adrienne J Boden, 2816 Trousdale Dr
Florence J Lencioni, 2817 Trousdale Dr
Gordon Tom, 2617 Trousdale Dr
Victor Sangervasi, 1708 Toledo Ave
Rose Sangervasi, 1708 Toledo Ave
Michael S. Afshar, 3015 Trousdale Dr
Shaeda Mellen, 1721 Marco Polo Way #1
Marjorie G. Grady, 1726 Quesada Way
Creighton S. Grady, 1726 Quesada Way
Lorrette Hopson-Neel, 1795 Sebastian Dr
Hideo Hirata, 2628 Martinez Dr
Tomoko Hirata, 2628 Martinez Dr
Dr. Richard B Kelley, 1821 Castenada Dr
Lylian C. Kelley, 1821 Castenada Dr
Sal Fontana, 1711 Toledo Ave
Rose Fontana, 1711 Toledo Ave
John Marco, 1805 Castenada Dr
Joyce De Marco, 1805 Castenada Dr
Chi Tso Lin, 2805 Trousdale Dr
Ingrid Lin, 2805 Trousdale Dr
Connnie Lin, 2805 Trousdale Dr
Szu-Ying Lin, 2805 Trousdale Dr
Jakie Lin, 2724 Trousdale Dr
Cathy Lim, 2724 Trousdale Dr
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Steven Lee MD, 2824 Rivera Dr
Tom Pong MD, 1638 Escalante Way
Lynda T. Romero, 1234 El Camino Real #300
Jamila Champsi MD, 2800 Trousdale Dr
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Shahn Kermani, 7 Mariposa Ct
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Amy C Wan, 3017 Mariposa Dr
William C Wan, 3017 Mariposa Dr
Mylan Dang, 1804 Castenada Dr
Vincent M Powers, 2995 Trousdale Dr
Anita M Powers, 2995 Trousdale Dr
Colleen Woolf, 2180 Trousdale Dr

Hugo R Giusti, 1704 Sebastian Dr
Alice Chang, 2716 Trousdale Dr
Cindy Chang, 2716 Trousdale Dr
Jason Chang, 2716 Trousdale Dr
Steven Chang, 2716 Trousdale Dr
Sherry Pan, 2716 Trousdale Dr
Walter J. Bankovitch, 2950 Atwater Dr
Barbara A. Bankovitch, 2950 Atwater Dr
Connie Ma, 2600 Martinez Dr
Tracy Ma, 2600 Martinez Dr
Mason Ma, 2600 Martinez Dr
Kam Ma, 2600 Martinez Dr
Huan-Yao Sher, 3057 Atwater Dr
Chiao-Chin Sher, 2057 Atwater Dr
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Charlene A Campos, 2935 Trousdale Dr
Charlie A. Campos, 3030 Atwater Dr
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Sharon Hagberg, 1845 Capistrano Way
Terry Nagel, 2337 Poppy Dr
Patricia J. Kasey, 1524 Atwater Dr
Delores Gibbs, 2113 Ray Dr
Lynn Kelly, 1524 Alturas Dr
Barbara Burkhardt, 1528 Alturas Dr
Inger Penner, 1364 Bernal Av
Maureen A Byrne, 148 Pepper Ave
Patricia Rando, 219 Los Robles Dr
Susan Raffo, 1309 Castillo Av
Larry Raffo, 1309 Castillo Av
Elena Malta, 1840 Capistrano Way
Joseph Malta, 1840 Capistrano Way
Barbara Varesco, 2333 Ray Dr
Thomas Byrne, 148 Pepper Ave
Charles Penners, 1364 Bernal Av
Sal Rando, 219 Los Robles Dr
Vic Varesco, 2333 Ray Dr
Yolanda M Gioana, 2835 Trousdale Dr
Ali Heris, 2644 Trousdale Dr
Margarita Heris, 2644 Trousdale Dr
Nastran Mogtader, 2644 Trousdale Dr
David Lagerloff, 3025 Trousdale Dr
Todd Henley, 3025 Trousdale Dr
Virginia Halpin, 2813 Tiburon Way
Mary Cotter, 2847 Arguello Dr
Betty DeLorenzi, 2826 Arguello Dr
Marc Filosa, 2827 Arguello Dr
Floreine Minklein, 2815 Arguello Dr
Charles Hagar, 2949 Arguello Dr
Edward R. Del Carlo, 1614 Escalante Way
Lillian Del Carlo, 1614 Escalante Way
Anne C. MacFarlane, 3040 Alcazar
Herbert MacFarlane, 3040 Alcazar
Hedy Becker, 3000 Arguello
Wayne Kaul, 2952 Arguello Dr
Fairy C. Kaul, 2982 Arguello Dr
David Klonoff, 2958 Arguello Dr
Norine Arrighi, 2950 Arguello Dr
Robert Brown, 3008 Arguello Dr
Connie M. Brown, 3008 Arguello Dr
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Joanna Peng, 1830 Ashton Av
Steven Chou, 1830 Ashton Av
Marlowe Tyler, 1215 Murchison Dr
Judy Tyler, 1215 Murchison Dr
Lawrence Barulich, 1821 Loyola Dr
Peili Shu, 2821 Mariposa Dr
Ying Lu, 865 Pinon Ave, Millbrae
Eileen Marchasin, 1801 Sebastian Dr
Michelle Postal, 1801 Sebastian Dr
Alejandro Modena, 1632 Skyline Blvd
Barbara Modena, 1632 Skyline Boulevard
Isac Marchasin, 1801 Sebastian Dr
Babette Hanish, 1900 Trousdale Dr #105
Catherine Sisack, 1900 Trousdale Dr #104
Promod Sunatkau, 1900 Trousdale Dr #104
Joan Campagna, 2808 Mariposa Dr
Jane T Blair, 2813 Mariposa Dr
Clara Lyons, 204 Mariposa Dr

General Responses to Major Comments

The following topics address issues that were raised by many commenters and that therefore required detailed responses. General Responses address the following topics:

- GR-1 Electric and Magnetic Field (EMF) and Health Effects
- GR-2 Property Values
- GR-3 Environmental Equity
- GR-4 Notification Process

General Response, GR-1 EMF and Health Impacts

This General Response includes the following topics:

- **GR-1.1, Approach to EMF Assessment and Studies About EMF Health Impacts**
- **GR-1.2, Line Cancellation Effect**
- **GR-1.3, Levels of EMF Exposure**

  Magnetic Fields and Distances from Residences
  - Proposed Project
  - Magnetic Field at Transition Towers/Stations
  - PG&E Route Option 1B
  - Partial Underground Alternative

GR-1.1 Approach to EMF Assessment and Studies About EMF Health Impacts

A number of comments stated a concern about EMF as a potential health hazard. Commenters also expressed concern that there remains uncertainty in the scientific community as to the health effects of EMF, and that the CPUC should incorporate the "precautionary principle" in its evaluation of the Proposed Project and alternatives.

This issue is addressed in EIR Section D.8.7. To date there have been hundreds of studies conducted related to the health effects of exposure to EMF from electric transmission lines. Some of these studies identify biological effects but not health effects from exposure to EMF. Some epidemiological studies have shown a weak association between health effects and surrogates of EMF exposure, such as proximity to transmission or distribution lines. It should be noted that the often cited Wertheimer and Leeper 1979 study, which is seen as establishing widespread public attention on the EMF issue, was based on review of wire codes for electric distribution lines, not transmission lines such as that proposed and evaluated in this EIR. Researchers continue to explore whether EMF affects human health; to date they have not been able to demonstrate a health effect, nor have they been able to prove that EMF is not a health risk. Lacking proof that EMF is not a risk, the public's perception of EMF as a health risk remains the strongest driver behind continuing research in this area.

The EIR in Section D.8.7.3 summarizes the results of scientific review panels that have considered the body of EMF health effects research. The section states that it does not consider magnetic fields in the context of CEQA and determination of environmental impact, first because there is no agreement among scientists that EMF does create a potential health risk, and second because there are no defined or adopted CEQA standards nor adopted State or federal standards, for defining health risk from EMF. As a result, EMF information is presented for the benefit of the public and decisionmakers.

As stated in Section D.8.7.3, in 1993 the CPUC implemented a decision (D.93-11-013) that requires that utilities use "low-cost or no-cost" mitigation measures for facilities requiring certification under General Order 131-D.[1] The decision directed the utilities to use a 4 percent benchmark on the low-cost mitigation. This decision also implemented a number of EMF measurement, research, and education programs, and provided the direction that led to the preparation of the DHS study described above. The CPUC did not adopt any specific numerical limits or regulation on EMF levels related to electric power facilities.

The EPRI document referenced in many comments has been reviewed, and the comment itself appears to selectively quote the information provided by EPRI. The EPRI document, under an overall heading of "There is no conclusive evidence that exposure to EMF causes health effects" does state that epidemiologic studies indicate that magnetic fields of 3 to 4 mG or above are weakly associated with leukemia in children, a cause-and-effect relationship has not been proven. For such weak epidemiologic associations, supporting data from laboratory studies are usually critical for establishing a causal link. The EPRI document goes on to indicate that in the absence of supporting laboratory and mechanistic evidence, scientists are investigating the possibility that the epidemiologic results have been generated by inadvertent errors in study design or that magnetic fields occur along with another exposure that could plausibly cause leukemia. The article concludes with a statement that EMF research is continuing throughout the world.

GR-1.2 Line Cancellation Effect on Magnetic Fields

Placing two transmission lines adjacent to each other can result in an interaction of their magnetic fields. This interaction is not just in theory, it has been demonstrated on actual transmission lines for real world installations. The type and amount of interaction depends on a number of factors. There are three main parameters that affect the magnetic field interaction of transmission lines:

1. The distance between the phases of the two lines affects the amount of magnetic field cancellation that will occur. If the transmission lines are on separate adjacent structures the field interaction is most likely to reduce the magnetic field in the area between the two lines but may only have a minor effect on the magnetic field strength on the outside of these lines. However, if the two transmission lines are brought close together on the same structure the magnetic field interaction would be increased, this would result in a more pronounced effect on the magnetic field strength on the outside of these lines.

2. The amount of electrical current and direction of power flow on each line is a key parameter. Note that this is independent of the transmission line voltage. If the current on the two lines is flowing in the same direction the magnetic field cancellation effect would result in a lower magnetic field for the lines than if they were not next to each other. If the current on the two lines is flowing in opposite directions the cancellation effect is much more pronounced and would be expected to result in even lower magnetic field than if current flow is in the same direction.

3. How the phases of each line are arranged relative to each other is one of the important determinants in the interaction of magnetic fields. For example if the phases on one line were A-B-C top to bottom and the adjacent circuit was arranged C-B-A top to bottom this would further increase the magnetic field cancellation (this type of arrangement is referred to as an optimal phase arrangement).

[1] General Order 131-D is entitled "Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California."

In terms of the "requirements" necessary for field cancellation it is not possible to state specific distances for the reasons stated above. In general, placing power lines in close proximity to each other, i.e., on the same structure or in the same duct bank would be expected to result in noticeable interaction of the magnetic field from each line.

The proposed duct bank for the 230 kV underground line places the cables in a triangular configuration with respect to each other. The proposed duct bank arrangement does not result in the cables being equal distance from each other. Additional analysis of an equilateral triangular cable arrangement has been performed and indicates that the magnetic field above the duct bank would be approximately 55 mG and 11 mG at 15 feet, decreases of 15 mG and 4 mG, respectively. However, it is standard utility practice to include a spare duct for cable replacement in the event one cable fails and in this case use of an equilateral triangular arrangement would result in higher magnetic field of 97 mG above the duct bank and 19 mG at 15 feet. The proposed duct bank configuration results in the same magnetic field in the initial installation and if the spare duct is used.

GR-1.3 Levels of EMF Exposure

Several commenters indicated that a magnetic field level of no greater than one milliGauss (mG) should result from the Proposed Project or alternatives. Section D.8.7.4 of the EIR presents the estimated EMF levels from PG&E's proposed facilities. For the proposed overhead 230/60 kV line configuration, magnetic fields are shown as ranging from 29 to 42 milliGauss (mG) below the line, and from 8 to 15 mG 50 feet on either side of the overhead line. For the underground 230 kV line configuration, magnetic fields are estimated at 15 to 70 mG above the line, and 9 mG 20 feet from the underground line.

The public routinely experiences exposure to EMF in the community from sources other than electric transmission lines and substations. EIR Tables D.8-13 and D.8-14 present values of electric and magnetic fields from household appliances. This information indicates that public exposures to fields from appliances are significant, but are greatly reduced a foot away from the appliance. In a number of studies where residential magnetic fields were measured, field strengths within rooms and away from appliances were found to average between 0.5 mG and 1 mG. For homes that use their water system as the ground connection for their home wiring, the field averaged near 2 mG. These studies were conducted in the United States and in Europe, and included home samples from approximately 40 residences up to over 2,000 residences (Public Utility Commission of Texas, *Health Effects of Exposure to Powerline-Frequency Electric and Magnetic Fields*, March 1992).

Outside of the home, the public also experiences EMF exposure from the electric distribution system that is located throughout all areas of the community. Estimates of the magnetic field exposures to the public from overhead 12.5 kV distribution lines range from 22 mG directly below the lines, 8 mG 40 feet from the lines, and 2 mG 100 feet from the lines. In areas of underground distribution, which typically occurs in residential areas, the 12.5 kV circuits are not buried as deeply as transmission lines, and are not arranged to optimize field cancellation (see the discussion of Line Cancellation Effect below). The estimated fields for underground distribution lines range from 31 mG above the line, 4 mG 40 feet from the line, and 1.9 mG 100 feet from the line (Washington State Department of Health, *Electric and Magnetic Field Reduction: Research Needs*, January 1992).

Magnetic Fields and Distances from Residences

In response to concerns raised during the comment period as well as in Comment Set F from State Senator Jackie Speier, the distances from the transmission line or tower to the nearest residential property lines have been calculated and are as described below.

Proposed Project

Overhead Proposed Project: Along the southern overhead segment of the Proposed Project, the distance from the Proposed Project to the closest property lines along the west side of Lexington Avenue between Towers 5/28 to 5/32 range from 62 feet by Tower 5/30 to 147 feet by Tower 5/31. Near Hillsdale Junction, just south of the crossing of San Mateo Creek, the line is approximately 80 feet from residential property lines at Towers 6/36 and 6/37. North of the San Mateo Creek crossing and west of the Town of Hillsborough, existing Tower 7/39 is within the fenced yard of a residence, Tower 7/44 is 7 feet west of a residential fence line, and the towers and span between Towers 8/51 and 8/52 are adjacent to and/or within property lines. The remainder of the property lines of residences in the Town of Hillsborough along Black Mountain Road would be at distances greater than 100 feet. Magnetic field levels for these distances are as follows:

- At/within property lines = 23 to 32 mG
- 60 to 80 feet = 4 to 6 mG
- 150 feet = 1.5 mG

Underground Proposed Project: In the northern segment of the Proposed Project, the route would travel underground in roadways through the BART ROW, past cemeteries, and in residential areas. Magnetic field levels for the underground segment, based on PG&E's proposed line location within each ROW, are as follows:

- On Hoffman and Orange Streets, the line would be at 19 feet from residential property lines = 9 mG at property lines
- Along the BART ROW where approximately 40 residences are immediately adjacent to the ROW, the underground route would be from 60 to 110 feet from property lines, resulting in magnetic fields of 1.2 to 0.4 mG.
- At the 5 schools and one day care center along the underground segment of the Proposed Project route, assuming implementation of PG&E's proposed EMF mitigation, magnetic fields would range from 0.5 to 11 mG. The highest magnetic fields (from 7 mG to 11 mG) would be at the edge of the school property lines adjacent to athletic fields.

Magnetic Field at Transition Towers

Modeling of the magnetic field for individual transition towers with aerial wires on one side and underground cables routed down the structure, while possible, is relatively complex. In actuality, the magnetic field in the vicinity of transition towers would be predominated on one side by the overhead circuits as they approach the tower or station, and on the other by the underground circuits as they depart. Therefore, the magnetic field at these locations is the same as provided for the overhead and underground line configurations as described in EIR Section D.8.7.4. At a distance of 50 feet from the tower itself, magnetic field from the overhead 230/60 kV line would range from 19 to 27 mG and at 100 feet, the magnetic field would be about 5 mG. The magnetic field would be less than 5 mG at 50 feet from the underground 230 kV line.

PG&E Route Option 1B Alternative

Skyline Boulevard. With the Route Option 1B Alternative, along Skyline Boulevard north of Golf Course Road where the line crosses east of I-280 in the Town of Hillsborough to La Strada in Unincorporated San Mateo County, if the line were placed in the center of the roadway ROW, the closest property lines on either side would be 40 feet away from the line. Through the City of Burlingame and

Unincorporated San Mateo County, north of La Strada and parallel to Loma Vista Drive in Skyline Boulevard, the line would be 45 to 50 feet from residences. In Skyline Boulevard, north of Loma Vista Drive to Trousdale Drive, the line would be 40 feet from residences.

- Skyline Boulevard width is 80 to 100 feet so assuming underground 230 kV line is in center, distance from residential property lines is 40-50 feet = 3 to 2 mG

Trousdale Drive. Under the Route Option 1B Alternative along Trousdale Drive, if the line were placed in the center of the roadway ROW, between Skyline Boulevard and Hunt Drive, the line would be 30 feet from the bordering property lines. Between Hunt Drive and El Camino Real, the line would be 42 feet from the adjacent residential property lines.

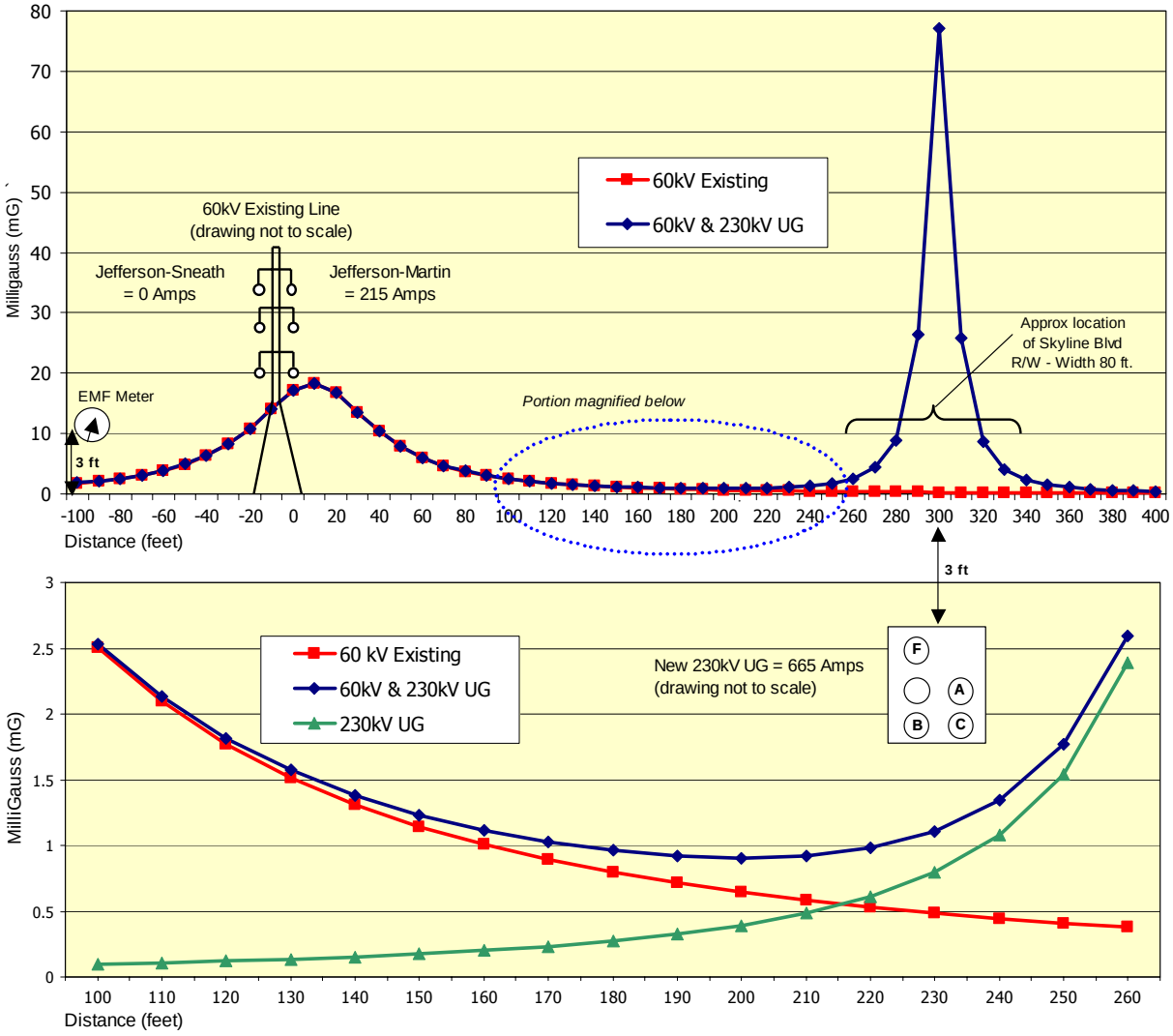
- Trousdale Drive width is 60 to 84 feet so assuming line is in center, distance from residential property lines is 30-40 feet = 4 to 3 mG

Route Option 1B "Sandwich Area." In addition, given the "sandwich" issue raised by commenters in Burlingame (resulting from the residences being located between the existing 60 kV lines and the 230 kV underground along Skyline Boulevard, a further review has also been performed for the PG&E Route Option 1B Alternative. Magnetic fields for the Route Option 1B Alternative have been calculated for the area west of Skyline Drive between Hayne Road and Trousdale Drive, as illustrated in Figure GR-1. The narrowest distance between the existing overhead double-circuit 60 kV line and the alternative underground single-circuit 230 kV line is about 300 feet at the point just north of where Summit Drive intersects Skyline. The distance between the two lines increases to over 400 feet between Scott Court and Trousdale Drive, as illustrated in Table D.8-16a (added to EIR Section D.8.7.4).

For the properties on Loma Vista and Skyview Drive that are 50 to 100 feet from the Proposed Project, the magnetic field levels are shown in Figure D.8-1c in the EIR and vary between 15 mG at 50 feet to 7 mG at 100 feet. This analysis indicates that the two lines are so far apart that the increase in magnetic field level is negligible in the vicinity of either the overhead 60 kV lines or the 230 kV underground line. In the area between the two lines the maximum additional magnetic field contribution of the other facility varies from 0.1 mG to 0.4 mG. A discussion of the magnetic field levels for each segment of Underground Route Option 1B has been included in Section D.8.7.4 and in Figure D.8-2a and Table 8-16a. See also the following figure for a depiction of EMF levels in the Burlingame area under PG&E Route Option 1B Alternative.

In addition, PG&E developed additional EMF information for the portion of Underground Route Option 1B which follows Trousdale Drive. The routing for the underground transmission line in Trousdale Drive places the duct bank approximately 16 feet from the northern sidewalk. The field levels shown in Figure D.8-2 remain valid with a peak of 70 mG and based on the duct bank location the magnetic field at the sidewalk along Trousdale would be 15 mG at the sidewalk. The additional magnetic field modeling also provides a high level of detail regarding contour mapping for magnetic field levels at 1, 2, 5 and 10 mG.

Figure GR-1. Magnetic Fields in "Sandwich Area" between Skyline Boulevard (Potential Location of Underground 230 kV) and Existing 60 kV Overhead Line



Partial Underground Alternative

For the Partial Underground Alternative, three separate segments of the route are evaluated. First, this alternative uses overhead transmission line construction west of I-280 from Jefferson Substation along Cañada Road in the Edgewood area to Tower 2/13 where it rejoins the Proposed Project route to Ralston Substation. This segment includes 230 kV and 60 kV circuits and the magnetic field levels would be the same as for the Proposed Project.

The second segment follows the route of the Proposed Project from Ralston Substation to Tower 8/50 and places both the 60 and 230 kV circuit underground adjacent to the existing location of existing 60 kV tower line, except in the area of San Mateo Creek where an overhead crossing of this area would be installed.

The third segment begins at Tower 8/50 crossing to the west side of I-280 and remains west of the interstate until the Proposed Transition Station at San Bruno Avenue. This segment uses overhead construction and the magnetic field levels would be the same as for the Proposed Project. Table 8-16.b

in Section D.8.7.4 summarizes the magnetic field levels for the three segments of the Partial Underground Alternative.

Following are the distances from Partial Underground Alternative for each of the three segments to nearest residential property lines and the magnetic field levels along each segment would be approximately as shown below.

Ralston to Hillsdale Junction Substations (San Mateo Highlands – Underground Segment):

- Closest residential property lines range from 70 to 80 feet = 0.6 to 0.4 mG

Transition Station/Tower at 6/36 and 7/39: Overhead lines dominate the magnetic field at transition towers. Therefore, data for the Proposed Project (60/230 kV overhead) applies here:

- At 80 feet from Tower 6/36 (in the Ralston-Hillsdale segment) = 4 mG
- At 100 feet from Tower 7/39 (in the Crystal Springs to Carolands segment) = 5 mG

Crystal Springs to Carolands Substations (Town of Hillsborough – Underground Segment):

- Underground north of Tower 7/39 the underground 60/230 kV lines would be greater than 100 feet from residential property lines = 0.5 mG
- Near existing Tower 7/44 the underground 60/230 kV lines could be as close as 10 feet from the residential property line = 22 mG

Partial Underground Alternative Magnetic Field Modeling. Modeling of the underground duct bank was performed during the comment period of the Draft EIR as a response to a comment asking what milliGauss level would occur if the 230kV and 60 kV were placed underground within the present ROW behind the houses on Lexington Avenue under the Partial Underground Alternative (see discussions on pages 7 and 13, Emails from Judy Chen). The entire length between Ralston and Carolands Substations was analyzed. In preparing the model, PG&E had not provided a proposed or conceptual arrangement for multiple circuits within a duct bank. Therefore, the modeling for the 230 kV and 60 kV circuits was extrapolated from the information provided by PG&E, but PG&E did not validate current levels or duct spacing when multiple circuits are present. Figures GR-2 and GR-3 illustrate the magnetic field level information that was developed during the comment period. These graphs illustrate the magnetic fields that would result from installation of the 60 and 230 kV lines underground in various configurations and in various line segments.

Figure GR-2. Partial Underground Alternative (Ralston to Hillsdale Junction Segment): Magnetic Field Comparison for Two Different Ductbank Configurations

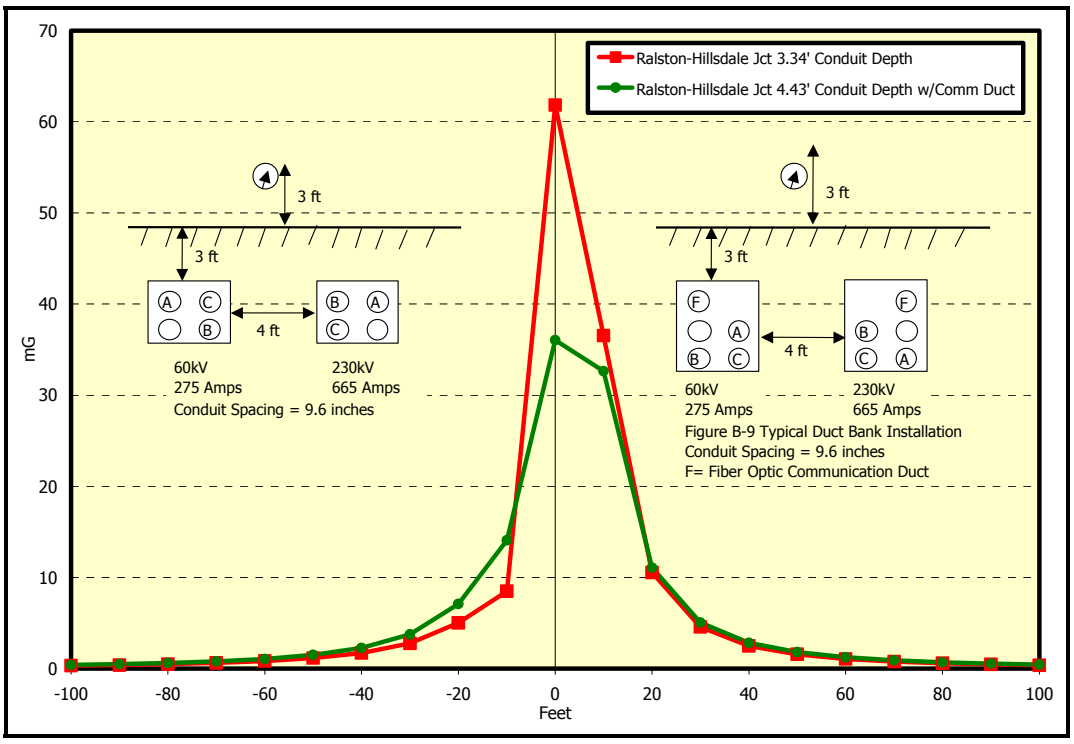
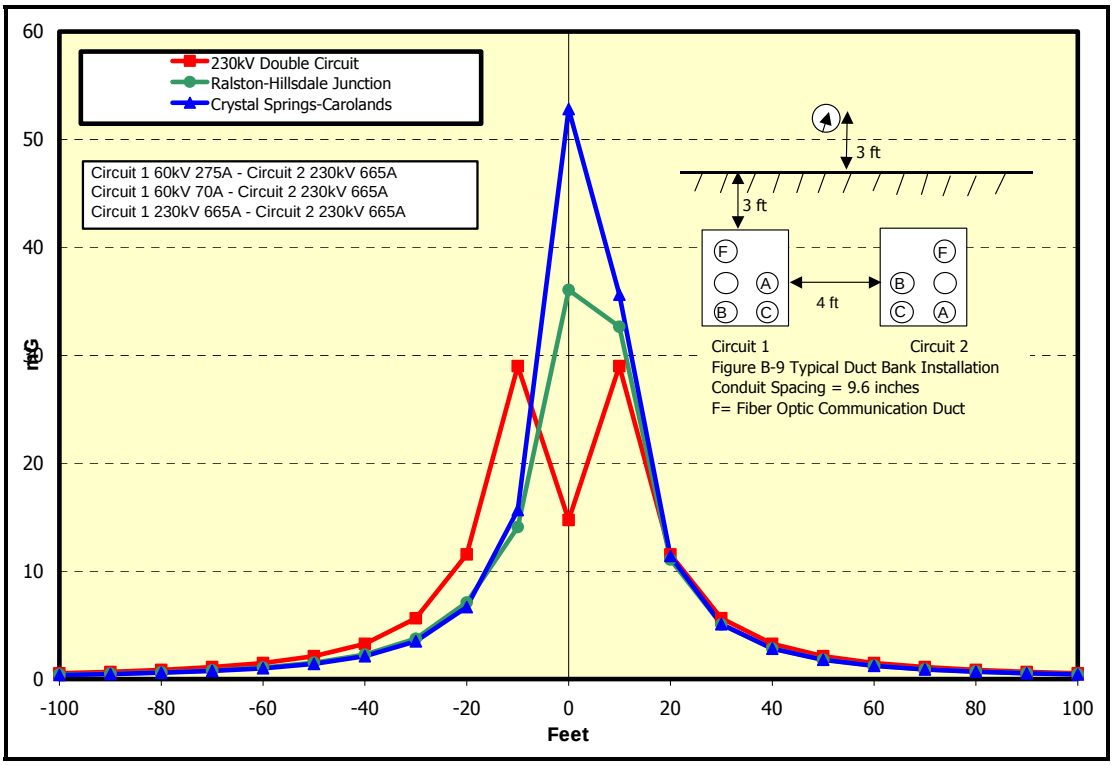


Figure GR-3. Partial Underground Alternative (Three Different Line Segments) – Magnetic Field Levels with Two Separate Underground Ductbanks (60 kV and 230 kV)



Following the Draft EIR comment period, in a revised evaluation of the configuration of the ductbank, it was discovered that the utility uses a different ductbank configuration than the configuration used in the initial analysis, which was originally taken from PG&E's EMF design guideline included in the EIR Appendix 3 (Volume 2). With the more consolidated ductbank configuration, the magnetic fields would be reduced from the previous calculations. The double circuit underground EMF calculations and the shape of the lines on the graph changed slightly, but the values were close to the original values. At the maximum values (between 31 and 55 mG for different configurations) the difference was only one or two mG. The revised analyses of the previous configuration with the updated ductbank configuration are detailed in Figures GR-4 and GR-5.

Figure GR-4. Partial Underground Alternative (Ralston to Hillsdale Junction Segment) – Magnetic Field Level Comparison of Different Ductbank Configurations (Revised)

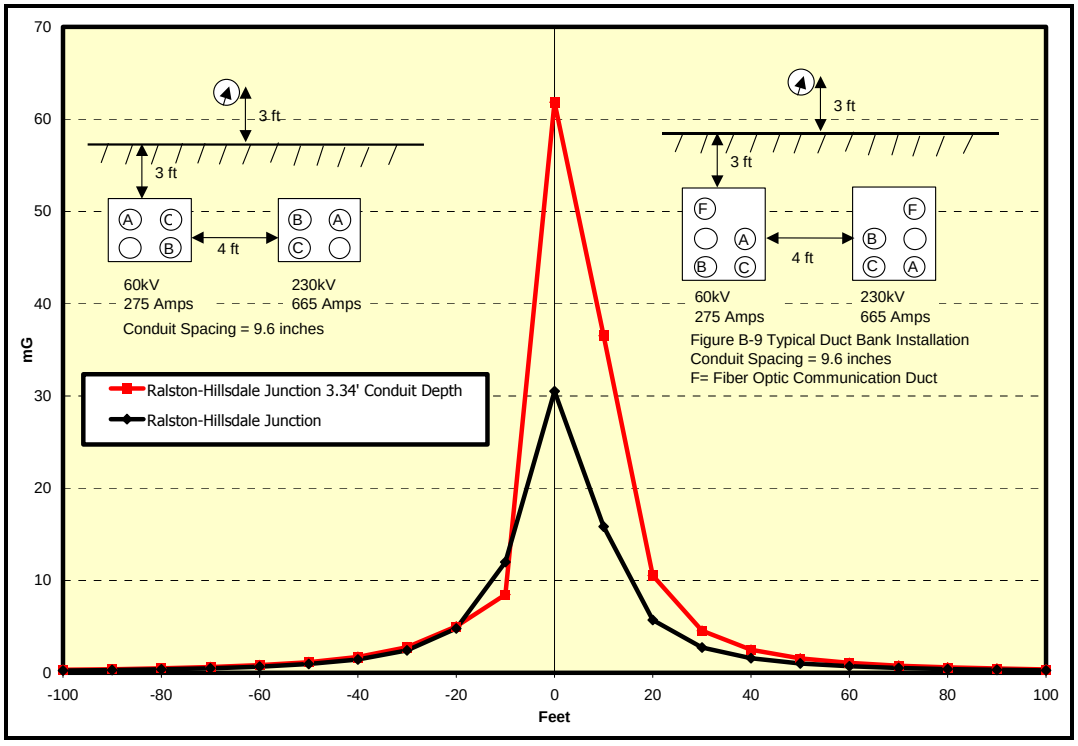
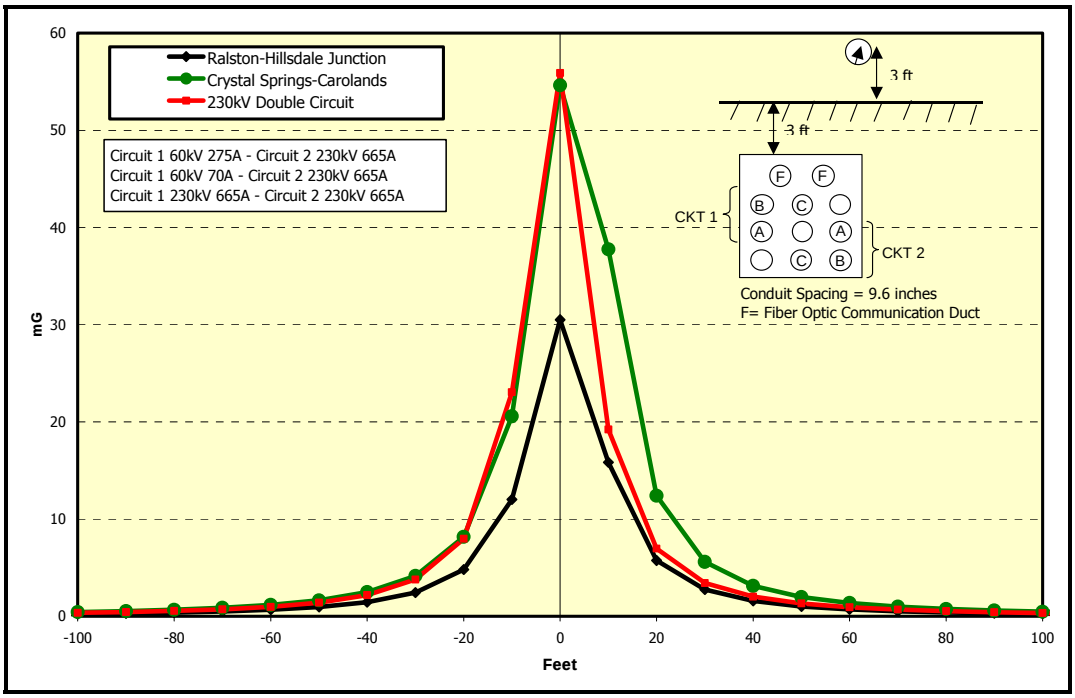


Figure GR-5. Partial Underground Alternative (Multiple Line Segments) - Magnetic Field Levels with 60 kV and 230 kV lines in a Single Ductbank



East Market Street Alternative

This alternative route would avoid the residential streets of Hoffman and Orange Streets, requiring construction in an additional segment of Hillside Boulevard and East Market Street. The route would pass residential properties and two schools, but along wider streets than the proposed route segments so magnetic field levels would be lower. Following are estimated magnetic field values for the non-industrial land uses along this route:

- Adjacent to Colma Elementary School and TR Pollicita Middle School, and at residences on the opposite side of East Market Street = 3 mG.

Modified Underground Existing 230 kV Alternative

This alternative route would pass through primarily commercial and industrial areas, with a few residences in the southernmost route segment. Following are estimated magnetic field values for the non-industrial land uses along this route:

- San Bruno Avenue (12 residences; avoidable with implementation of Mitigation Measure T-9a and use of Sneath Lane/Tanforan Drive) is 58 feet wide so the line if at the center of the street would be 29 feet from property lines = 4 mG
- 7th Avenue (4 residences north of Walnut approximately 25 feet from the line, avoidable with implementation of Mitigation Measure T-9a) = 6 mG
- Eight hotels along San Bruno Avenue, Gateway Boulevard, and south of Sierra Point Parkway where property lines would be from 25 to 49 feet from the line = 1.7 to 6.2 mG. Along Gateway and Sierra Point, hotels are set back about 100 feet from the property lines so magnetic fields at the hotel buildings would be further reduced (0.3 mG).

- Two hotels along Veterans Boulevard (width of road is 35 to 45 feet so from centerline, distance is 17 to 22 feet) = 6 to 9 mG.
- Other commercial and industrial properties along Gateway and South Airport Boulevards (approximately 48 feet from centerline of road to sidewalk) = 1.7 mG.

General Response, GR-2 Property Values

A number of letters expressed concern about effects on property values and in response Section D.13.7 (Property Values) has been added to the Socioeconomics section (Section D.13) of the EIR. This section addresses issues associated with the potential for impacts on property values and industrial facilities such as transmission lines in an effort to provide the reader with detailed background information based on extensive literature review and the property value issues of past similar projects. It should be noted that this section does not consider property values in the context of CEQA and the determination of environmental impact, because: 1. there is no consistent evidence that industrial facilities negatively impact property values; and 2. there are no defined or adopted CEQA standards for analysis of industrial project impacts on property values. As such, the information in this section is provided for the benefit of the public and decisionmakers. As cited in Section D.13.7.1 and *CEQA Guidelines* Section 15131, economic or social effects of a project *per se* are not considered as significant effects on the environment unless there is an indirect physical effect to the environment. However, such issues can be considered by the CPUC in its General Proceeding. In summary, as shown in detail in Section D.13.7, although there is evidence that transmission lines may have affected property values in some cases, the effects are generally smaller than anticipated, and greater detailed studies on the subject are required to determine a direct correlation between the siting of industrial facilities (such as transmission lines) and property values.

General Response, GR-3 Environmental Equity

Many commenters stated that it was unfair for San Mateo County residents and businesses to bear the environmental impacts of the project while the benefits would accrue primarily to the City and County of San Francisco (CCSF). According to PG&E and the California ISO, the Peninsula would receive reliability benefits from the Project also, as explained in the following paragraphs. This issue will be addressed in detail in the CPUC's general proceeding.

The August 28, 2003 Draft EIR comment letter from the California ISO states that ". . . the Project would increase load serving capability within the San Francisco Peninsula between Jefferson and Martin Substations, in addition to increasing the load serving capability north of the San Mateo and Martin Substations . . . the Project benefits load all along the Project route due to it being parallel to other transmission lines and load serving substations. While the Project increases normal load serving capability to Martin Substation, it also increases normal load serving capability of all lines parallel to the Project."

As also discussed on page 9 and prepared during the comment period of the Draft EIR, when PG&E was questioned about the reliability and related benefits of the Jefferson-Martin project to San Mateo County, it responded as follows:[2]

[2] PG&E Deficiency Response #1, November 27, 2002.

> "Electric demand in San Francisco and northern San Mateo County is supplied by the same transmission lines and local power plants. The transmission system is an interconnected network and the same transmission lines that supply northern San Mateo County also supply the City and County of San Francisco.
>
> The major transmission lines that import power to supply San Francisco and north San Mateo County are located in a single corridor along Highway 101 between Martin Substation (just south of the San Francisco boundary) and San Mateo Substation. PG&E substations located in northern San Mateo County supplied by these lines include Burlingame, Millbrae, East Grand, Daly City and Serramonte substations. These substations, along with the distribution facilities at Martin substation, supply electricity to Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma and Daly City. Burlingame, Millbrae and East Grand substations interconnect directly to the transmission lines between San Mateo and Martin substations. Daly City and Serramonte substations are interconnected to separate transmission lines from Martin substation. Transmission lines that supply loads within the City and County of San Francisco interconnect with and import power from Martin substation. Power is imported to Martin substation by the transmission lines running between San Mateo and Martin substations.
>
> The potential benefits of the Jefferson-Martin 230 kV Transmission Project to the City and County of San Francisco also apply to the cities of Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma, and Daly City since, as described above, they are supplied by the same transmission lines."

When asked if the area of San Mateo County that is now served by the double-circuit 60 kV line will receive the same or improved service when it is served by a single-circuit 60 kV line, even though none of the local substations would be served by the new 230 kV circuit, PG&E responded as follows:[3]

> "The 60 kV substations that presently have two sources of transmission supply will continue to have two sources with the Project. Those 60 kV substations that presently have one transmission source will continue to have one source.
>
> The substations, as described on pages 2-7 PG&E's PEA, energized to the existing Jefferson-Martin 60 kV circuits, are Ralston, Hillsdale, Half Moon Bay, Carolands, Sneath Lane, Pacifica, Watershed, Crystal Springs, San Andreas, and San Bruno. All these substation supply loads. The existing Jefferson-Martin 60 kV circuits also connect to the Hillsdale Junction switching station.
>
> The arrangement for the San Bruno, San Andreas, Sneath Lane, Pacifica, Crystal Springs, Hillsdale, and Half Moon Bay substations would remain the same with the Proposed Project.
>
> Ralston, Carolands, and Watershed substations are presently normally supplied by one of the Jefferson-Martin 60 kV circuits with the other 60 kV circuit used as an alternate supply should outage of the normal supply circuit occur. Switches at or near the substation will transfer from the primary supply circuit to the alternate supply circuit. With the Project, these substations would use the new upgraded 60 kV circuit as the normal and alternate supply by installing switches to sectionalize the line at or near the substation. These switches would allow the substation to be transferred to the section of line that is not affected by the outage.

[3] PG&E Deficiency Response #1, November 27, 2002.

> The Project also includes two 60 kV circuit breakers at Hillsdale Junction switching station to sectionalize the new upgraded 60 kV line. The sectionalizing results in reduced 60 kV line exposure to Watershed, Ralston, and Crystal Springs substations, which would enhance their reliability.
>
> In addition, while the new Jefferson-Martin 230 kV circuit will not directly connect to the 60 kV substations, it does enhance reliability by providing increased capability and redundancy of 230 kV supply to this area by installing a third 230 kV circuit to Jefferson substation."

The Proposed Project would not change the way that the loads served from the present 60 kV system along the 280 corridor with respect to reliability. For the most part these loads are served out of the Jefferson Substation, and this would continue to be the case. With the Proposed Project, however, some of the 60 kV load may be served from the 60 kV system out of Martin Substation. In any case these loads represent a small fraction of the overall Peninsula load.

The overall regional demand for electricity is split evenly between the City (900 MW) and the remainder of the Peninsula (900 MW). Currently there are contingencies that could result in the loss of significant load north of the San Mateo Substation including "Burlingame (and rest of San Mateo County)". The distribution of the load reductions between the City and the remainder of the Peninsula would vary depending upon the particular contingency. If the problem is in the vicinity of San Mateo Substation all of the Peninsula loads, including the City, could be a candidate for reduction. Likewise a problem with some of the in City generation could result in the need to reduce load Peninsula-wide. If the problem is a wires related problem downstream of the Martin Substation the load within the City would more likely be a candidate for curtailment or otherwise be adversely impacted. For the most part these problems would likely be independent from the availability of the Jefferson-Martin project.

Given the relatively equal distribution of the load between the CCSF and the Peninsula, it is reasonable to consider project benefits to be relatively the same for each area.

With respect to the "current black out problems Burlingame is having", it is understood that this is related to local distribution line problems, which would be unaffected by the presence or absence of the Proposed Project.

General Response, GR-4 Notification Process

Legal Requirements. Under the California Environmental Quality Act (CEQA) Guidelines Section 15087, the requirements for the public review process of the Draft EIR are as follows.

> *(a) The lead agency shall provide public notice of the availability of a draft EIR at the same time it sends a notice of completion to OPR [Office of Planning and Research]. This notice shall be given as provided under Section 15105. Notice shall be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing, and shall also be given by at least one of the following procedures:*
>
> > *(1) Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project. If more than one area is affected, the notice shall be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas.*
> >
> > *(2) Posting of notice by the public agency on and off the site in the area where the project is to be located.*

> *(3) Direct mailing to the owners and occupants of property contiguous to the parcel or parcels on which the project is located. Owners of such property shall be identified as shown on the latest equalized assessment roll.*

In addition, the CPUC's General Order 131-D guides utilities in the application process. Item 1.b in Section XI, details the 300-foot notification requirement, which applies to PG&E when it files its application. These notification guidelines apply only to the proposed route, not to alternative routes. General Order 131-D states:

> *Notice of the filing of each application for a CPCN for facilities subject to the provisions of Sections VII, VIII, and IX.A of this General Order…shall be given by the electric public utility within ten days of filing the application: 1. By direct mail to . . .*
>
> *(b) All owners of land on which the proposed facility would be located and owners of property within 300 feet of the right-of-way as determined by the most recent local assessor's parcel roll available to the utility at the time notice is sent…*

Notification and Public Involvement for the Jefferson-Martin Project. As detailed in Section H (Public Participation) of the EIR, following is a summary of notification and public outreach efforts undertaken by the CPUC since the submittal of PG&E's Application:

- **Notice of Preparation** (NOP) was mailed to affected agencies, county and city departments, special districts, property owners, everyone on the CPUC Service list, and interested parties on January 20, 2003;
- **Document Repositories** were set up at 16 locations throughout the area of the Proposed Project area;
- Establishment of an **electronic mail address and a telephone/fax hotline** for Project Information;
- A **newspaper notice** for the four public scoping meetings was published a week prior to the first meeting in the *San Mateo County Times,* on January 22, 2003.
- Four **Scoping meetings** were held on the following dates and locations:
  - January 29, 2003, at 7:00 pm at the San Bruno Recreation Center, San Bruno
  - February 4, 2003, at 2:00 pm and again at 7:00 pm at the City Council Chambers, San Mateo City Hall, San Mateo
  - February 6, 2003, at 7:00 pm at the Albert Teglia Community Center, Daly City.
- **Agency consultation meetings**. Eight agency consultation meetings were held from January through March 2003 by the CPUC and EIR Team Project Managers and affected agencies and jurisdictions to discuss potential impacts and alternatives. Several agencies declined to meet with the environmental team, including the Cities of South San Francisco and Brisbane.
- **Notice of Release (NOR) of the Draft EIR** was mailed to 8,764 interested parties, agencies, county and city departments, special districts, property owners, and occupants on or adjacent to PG&E's Proposed *and* the alternative routes in July 2003 at the time the Draft EIR was released. The names and addresses of property owners were provided to the CPUC by PG&E and were generated using the most recent equalized assessment roll. The Notice included information on how to gain access to the Draft EIR, information on the Environmentally Superior Alternative(s), and the dates, times and locations for informational workshops on the Draft EIR (July 2003) as well as the CPUC's Public Participation Hearings (August 2003);

- **Copies of the full Draft EIR** were sent to 117 interested parties and agencies, and to 13 libraries used as document repositories. Ninety-nine copies of the Executive Summary and 9 CD's with the text of the Draft EIR were also sent out. Approximately an 110 copies of the Executive Summary and 25 copies of CD's with the text of the Draft EIR were distributed at the workshops and Public Participation Hearings in July and August 2003;
- **Newspaper Notices.** Information on the Draft EIR, including the project website address and the dates and times of the Public Informational Meetings, was printed in the *San Mateo Times* on July 16 and July 23, 2003 and in the *San Mateo Weekly* combined edition (a combination of 6 Peninsula Independent and related papers) on July 22, 2003;
- Four informal **Public Information Workshops** were held at the following dates and locations:
  - July 29, 2003 at 2:00 pm and at 7:00 pm at the San Bruno Senior Center, San Bruno;
  - July 31, 2003 at 2:00 pm and at 7:00 pm at the City Council Chambers, San Mateo City Hall, San Mateo
- Four **Public Participation Hearings** (PPHs) were held by the Administrative Law Judge at the following dates and locations:
  - August 12, 2003 at 2:00 pm and again at 7:00 pm at the City Council Chambers, San Mateo City Hall, San Mateo;
  - August 14, 2003 at 2:00 pm and again at 7:00 pm at the San Bruno Recreation Center, San Bruno
- **CPUC Website.** The NOP, announcements of scoping meetings, NOR, the dates and times of the Public Informational Workshops and Public Participation Hearings, and the text of the Draft EIR (note that some of the figures were not posted due to security reasons) were posted on the project website on the Internet at:

  http://www.cpuc.ca.gov/Environment/info/aspen/jefferson_martin/jeffmartin.htm