May 5, 2017

Dear Lafayette City Council members and City Staff,

As residents of Lafayette, we want to express our appreciation to city staff members who worked on Lafayette's response to PG&E's Community Pipeline Safety Initiative. We understand that city staff put many hours over the years on this issue using the best information available at that time, and that the City Council made an agreement with PG&E in deference to their expertise delivering gas and electricity to our city.

Unfortunately, the removal of 272 trees (216 of which are protected) is still an unimaginably large number given the age, location and critical benefits they provide to our community and wildlife, and the lack of evidence provided by PG&E that necessitates their removal. For the most part, we are not talking about 5" trees planted in the city, but rather ancient oaks hundreds of years old, along ridgelines and riparian habitats, trees which started growing before California was part of the union, certainly before the pipeline's existence. Some trees may have helped feed and shelter indigenous Americans. Don't these trees deserve our unwavering protection, beyond PG&E's unsubstantiated claim that access might be improved?

We, and over 1500 petitioners, are demanding that the city council of Lafayette dissolve or rework the agreement with PG&E in order to save our trees.

This approach would not be unheard of. There is precedent with other cities to not sign tree cutting agreements with PG&E, despite their attempts to mitigation offers and claims of safety. Some of those cities are listed in this document.

Knowing the City Council also values trees and would like to protect our natural environment, **we ask each member of the City Council to STOP PG&E's rush to begin cutting in mid-June, and to NOT APPROVE the list of trees provided by PG&E.** That list of trees needs to be further explored, in the public domain, with the weight of knowledge that most heritage trees are priceless and irreplaceable. **Going tree-by-tree with PG&E -- city council, planning department, citizens of Lafayette together with PG&E representatives -- would be our recommended next steps** to help ensure both public input and public safety needs are met.

To assist the City Council, we would like to present four main reasons that, in our opinion and to the best of our knowledge, demonstrate why the current PG&E tree removal must not move forward at this time: PG&E cannot substantiate the claims they made for requiring tree removal; the agreement was made without proper public review; Lafayette may not have been aware of jurisdictional issues which could favor private property owners regarding easements; and important environmental reviews were ignored.

REASON 1 - **PG&E's rationale for the CPSI initiative in Lafayette is founded on unproven warrants**

In the March 27, 2017 agreement with Lafayette, PG&E states it is "*conducting a community pipeline safety initiative to ensure that first responders and safety crews have immediate access to their pipelines in an emergency and to ensure that their pipelines are not being damaged. PG&E has warranted that tree roots may cause damage to pipes by exposing them to corrosion. In an effort to prevent this potential damage, PG&E is proposing to remove a number of trees within the City."*

And the City Staff Report, March 27, 2017 states the reason is: "*..first responders and crews have immediate access, the pipeline can be properly inspected, and tree roots do not damage the pipes.*"

Our research and work with similar communities in California indicate that PG&E's rationale is either false, misleading, or procedurally unnecessary, as outlined below.

a. Regarding immediate access: PG&E insists that safety and access are the reasons for cutting down the trees. However, in an emergency, rapid access to pipelines (digging down to reach them to deal with a leak) is SECONDARY to the necessity of immediately shutting down the pipeline. As stated in federal regulation 49 CFR 192.615 (ATTACHMENT 1), an essential element of an emergency response, is a SHUTDOWN of the pipeline to insure safety of people and property. In terms of tree removal prior to an emergency to more quickly access a pipe, the tree roots remain after a tree is removed. If tree root cutting is necessary after gas shutdown, the small time savings realized when cutting through the dead roots vs live roots is negligible (e.g., 3 hours vs. 4 hours).

   This evidence is supported by unsolicited comment from local first responders:

   i. Per Damon Pelle, fire department captain who contacted us on May 1, 2017: "*I am a captain with a local fire district. One of the arguments I watched on television was adequate access for fire personnel. Our standard operating procedure for a gas pipeline of any size is to isolate, deny entry and evacuate the area. We don't go near lines that have been breached until PG&E shuts them down*."

   ii. Per Jim McCarty, a Lafayette resident and retired firefighter/officer with the Oakland Fire Dept. who contacted us on May 3, 2017: "*It seems that PG&E is using 'Fire Dept. access and response time' as one factor in their reasoning to cut these trees. This is not a valid argument. The role of the FD is not to respond directly to a leak or explosion. It is to 'isolate and deny entry' to the area. They would set up perimeters some distance removed from the incident and wait for PG&E to do the repairs. There appears to be more than adequate access to pipeline for the Fire Dept. to do their job in my opinion."* Mr. McCarty is experienced in command procedures for Haz-Mat, gas/water leak/explosions.

   Instead, we've heard PG&E purportedly enters live-leak areas with full HAZMAT suited personnel who fix leaks without turning off gas lines, which is expedient but apparently against federal regulations. The advantage in this approach for PG&E may be that it allows PG&E to minimize the time in the field relighting pilot lights with each customer located downstream. Less safe, more cost efficient, but either way not in the best interest of public safety.

   We could not find, nor could PG&E provide, any documentation that demonstrates trees have

inhibited first responder access in California; furthermore, our trails and roads are easily accessible to other park and utility vehicles and personnel.

SUMMARY: Access is a red herring not supported by actual first responders. Removal of trees will not make the city any safer than we are currently assured by PG&E. The real concern as to access is if there are enough safety shut-off valves at reasonable intervals across the pipeline and ensuring gas can be shut off quickly and as close to leaks as possible. We are still awaiting PG&E's response to our local safety valve locations and operations. It has been brought to our attention that PG&E could also install automatic safety valves which are designed to respond to a sudden drop in pressure and close off the line between valves. PG&E has installed hundreds throughout their pipeline; is Lafayette equally protected? This is one option, perhaps the best option, that helps ensure public safety (note: the pipeline in San Bruno could not be turned off for 96 minutes.) It is well worth focusing on this proven and effective safety measure, rather than pointless tree removal.

b. Regarding inspection: For details regarding Lafayette-specific pipeline inspection methods and last reported inspection dates, refer to ATTACHMENT 2. This document was provided by PG&E outreach specialists on May 1, 2017. According to PG&E themselves, current monitoring and inspections are sufficient to guarantee citizen safety:

"PG&E has a comprehensive inspection and monitoring program to ensure the safety of its natural gas transmission pipeline system. PG&E regularly conducts patrols, leak surveys, and cathodic protection (corrosion protection) system inspections for its natural gas pipelines. Any issues identified as a threat to public safety are addressed immediately." Details of their inspections are on pages 2-3 of ATTACHMENT 2.

PG&E is not warranting that inspections will be improved by removing trees. Pipelines may be easier to inspect if tree branches don't obscure aerial surveys or if tree stumps don't block car-mounted lead detection systems. Both are methods employed for convenience and cost-efficiency, not safety. Ground patrols are the best and most environmentally conscious inspection method.

TWO NOTES OF CONCERN: Questions of local safety issues arise in two areas.

i. Within the 4/27/17 PG&E Gas Operation Data Response (ATTACHMENT 2), testing on the DFM 3001-01 line, which was installed between 1947-1983 was last pressure tested between "1963-1983." It's possible that line hasn't been inspected in 54 years! Once a year inspection is the federal guideline requirement. Has PG&E provided the city with ongoing testing data per federal guidelines? DIsorganized record keeping was also a factor in the San Bruno incident.

ii. Another method PG&E claims to use is "PIG" testing for in-line inspections. PIGs are devices inserted into the pipe and pushed by pressure to detect dents. In our meeting with PG&E reps on May 2, we were told the transmission pipes in many areas have too many right angles and bends to use this technology. We were also told that there are multiple pipe sizes fitting together and varied ages of pipe at play here, so we hope and trust the city has PG&E up to the minute accountable for structural integrity.

In ATTACHMENT 2, PG&E also states Direct Assessment is used to test corrosion and cracking. This is done by excavating the pipe in areas of concern. Logically, tree removal is not necessary since this practice is in place today.

SUMMARY: To date, no documentation exists to support that inspections have been inhibited by trees or tree roots. Current testing methods have been assured to be satisfactory for pipeline safety. No new inspection methodology has been cited that would increase the quality of the inspection and moreover be compatible with our existing pipeline structure. The city should ensure that PG&E is providing testing, maintenance, and related documentation that meets federal guidelines including any planning for replacement or new placement of the pipeline within the next 20 years. Updating the 50 year old steel pipes and structure, and moving the pipeline further into clear areas, could be the ideal inspection and maintenance plan.

c. Regarding tree roots damaging pipes: PG&E doesn't use this rationale anymore in active public venues, primarily because we believe they have no independent data to support it. It inherently make sense that the PG&E pipeline, which is over 50 years old, and the heritage trees even older, have co-existed without problem for as long as the pipeline has been in place. To our knowledge, and without contradiction from PG&E, a leak has never been caused by tree roots, ever, anywhere in the state. (Most accidents are due to improper digging, i.e., people.)

There is ample evidence that trees are integrally related to the safety of the pipeline and the stability of the land. Removal of trees significantly jeopardizes soil stiffness, and soil stability by inducing 1) slope failure, 2) subduction, 3) erosion, and 4) liquefaction. Living trees and their roots support the soil during earthquakes. See ATTACHMENT 3

A report by PG&E on cracking caused by roots would be as dependable as a cancer study sponsored by a cigarette manufacturer. Nonetheless, a 2014 report sponsored by PG&E says in part:

i. "Available data provides no direct evidence that the presence of live tree roots in contact with the pipe increased the susceptibility to the initiation of stress corrosion cracking (SCC)." (page iv)
ii. "There was insufficient data collected in this study to draw any conclusions as to whether the presence of dead tree roots in contact with the pipe has any impact on pipeline integrity. " (page iv)
iii. "Above ground surveys are not significantly affected by the presence of tree roots. " (page iv)
iv. "In addition, the effectiveness of External Corrosion Direct Assessment (ECDA) does not appear to be adversely affected by the presence of tree roots. " (page iv)

Though the summary of PG&E's study ultimately recommend not leaving trees on pipelines, the evidence is scant. There is no proof pipelines are corroded faster by tree roots than they normally would without roots. The report simply states that the roots may impact the coating. Has PG&E looked at alternative coating, or additional shielding at tree sites? What about increasing direct corrosion assessment for each site? Isn't this internal study inconclusive, thereby warranting a more cautious approach to removing irreplaceable trees? Moreover, is it possible that cutting trees is the most efficient, cost-effect means to appear to be solving the problem?

REASON 2 - There was insufficient notice given to the public at any point during the process.

Reviewing the City Council website meetings since PG&E first approached Lafayette, it's clear that there was an insufficient public notification by both PG&E and the city. The public lacked information regarding which trees were initially targeted for removal, basis of how the bulk of trees were spared, property lines and easement information, ownership of trees in questions, negotiation timeline and settlement details until the day of signing. The city could have mailed letters to residents, but failed to do so.

Amazingly, to this day, the public STILL has not been given information regarding which trees will be removed...despite repeated requests of the city and PG&E. There seems to be no verifiable documentation available that supports waiver of, nor exemptions to, city tree ordinances. Neither does a communication process seem to be established by the city relative to resident notification of this potential agreement, notification to residents of tree removal, resident options for course of action, or chances for tree arbitration. In essence, the city is putting communication tasks into the hands of PG&E. They should not be the voice for the city council in this matter that affects each city resident, if not in terms of the trees, then per the basic concern for our public safety.

The public did not have an opportunity to review the project's tree removal plan before the city council was presented with a recommendation by the city planning department on March 27, 2017.
The timeline of events:

d. March 14, 2014 - City Manager's Friday Summary Titled "PG&E Tree Removal Plan Causing a Stir" - "*Lafayette has not yet received any communication from the utility that describes which trees will be cut…" "If … you are approached by PG&E regarding this program, the City would like to know about it. Please contact City Manager Steven Falk at sfalk@lovelafayette.org*."
Source:
http://www.lovelafayette.org/Home/Components/News/News/434/531?npage=16&arch=1

SUMMARY: No information was shared by PG&E, the city doesn't know if or what PG&E is communicating to residents relative to tree removal, even Mr. Falk seems to have been looking for details.

e. July 27, 2015 - City Council Meeting Minutes - "*Mr. Falk said staff will most likely report back to the Council sometime this fall or winter, depending on how long it takes PG&E." .."they will wait until all dots are finalized", "the agencies will work together and come up with a common approach" "Megan Canales will serve as the City's project manager on this project." "When the time comes when they need to have someone out in the field standing alongside PG&E to determine whether a tree is on City land or private land or whether it presents a risk or not.*"
Source:
(https://docs.google.com/gview?url=https%3A%2F%2Flafayette.granicus.com%2FDocumentViewer.php%3Ffile%3Dlafayette_812161464b28d11ef0969c2f40f06e31.pdf%26view%3D1&embedded=true)

A preliminary KML (Google Earth) file was posted on the city website, but in a May 2 meeting between city residents and PG&E customer service manager Jim Monninger, he stated that it was "a mistake" for the city to post it. It has since been removed, but is available on internet archiving services:
https://web.archive.org/web/20170403212538/http://lovelafayette.org/city-hall/quick-links/hot-t

opics/pg-e-tree-removal-plan

SUMMARY: Minutes from the July 27, 2015 minutes note PG&E presented a new pipeline safety initiative. A previous plan seemed neither reviewed nor discussed. There's confusion which trees are at risk, and who owns them. Although a project manager was assigned, there is no related staff report we could find until the March 27, 2017 meeting.

BETWEEN July 27, 2015 - March 27, 2017, there was no request for public input or further information presented, beyond what was in the city council meeting minutes.

f. March 27, 2017 - City Council Meeting Minutes - Agreement is presented by the city planning department with recommendation for approval and city council signs without dissent. This entire presentation & approval lasted maybe an hour. Discussion by city council of public response is centered around informing residents AFTER tree removal begins. Per the approved minutes: "*(Mayor Anderson) asked how neighborhoods can be made aware of what is going on and the purpose of PG&E's project when they begin to see very large heritage trees disappearing in large swaths.*"
Source:
https://docs.google.com/gview?url=https%3A%2F%2Flafayette.granicus.com%2FDocumentViewer.php%3Ffile%3Dlafayette_c5b8e14970121438a0c7186d65b1cb56.pdf%26view%3D1&embedded=true

It cannot be stressed strongly enough, as of May 4, 2017, PG&E has STILL refused issuing exact tree location and data, a full MONTH after the agreement is signed, and the public has no ability to understand which specific trees will be removed on public land. The lack of transparency is extremely disappointing, causing extensive confusion and frustration within the community, and may possibly be a Brown Act violation.

g. For comparison, the city of Martinez made informing residents a priority and mailed letters prior to forming a reaction. Their tree removal was reduced in numbers similar to Lafayette. Their timeline demonstrates an organized effort to keep their residents informed:
   i. March 27, 2014 letter sent to residents "Notification of PG&E Pipeline Pathways Project - Tree Removal and Concerns" and signed by City Manager.
   ii. April 2, 2014 letter sent to tree service contractors (reminding them of tree ordinances)
   iii. April 2, 2014 Martinez passes resolution 14: RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARTINEZ REGARDING THE CITY'S POSITION RELATING TO THE PG&E PIPELINE PATHWAYS PROJECT publicly rejecting PG&E's plans.
   iv. April 14, 2014 2nd letter sent to residents "UPDATE - PG&E Pipeline Pathways Project" and signed by City Manager.
   v. Martinez publishes PG&E's report which contains 59 detailed satellite maps and street-level views of trees being removed.

(Source: http://www.cityofmartinez.org/depts/planning/pgne_pipeline_pathways_project.asp)

Concord similarly notified their residents in writing on April 4, 2014. We could probably find other cities' outreach programs if necessary.

CONCLUSION: This meeting was on the official agenda, but given the age and size of many of the 216 heritage trees, the City Council would have benefited from publicizing the meeting, sharing KML files and holding public forums with PG&E in attendance BEFORE the plan was presented with recommendation for approval. Interestingly, Mr. Falk's "Weekly Roundup" newsletters contained no notice of this impactful decision either the weeks immediately before or after the meeting on March 27.

REASON 3 - Jurisdictional Issues

Federally mandated operations and maintenance guidelines are clear: PG&E does NOT have the right to remove trees with protection status unless and until the event of an emergency.

According to: O-M_Enforcement_Guidance_Part192.DOC "*The Federal pipeline safety regulations (49 CFR Parts 190-199) discussed in this guidance document contains legally binding requirements. This document is not a regulation and creates no new legal obligations. The regulation is controlling. The materials in this document are explanatory in nature and reflect PHMSA's [Pipeline and Hazardous Materials Safety Administration] current application of the regulations in effect at the time of the issuance of the guidance to the implementation scenarios presented in the materials. Alternative approaches are not precluded if they satisfy the requirements of the applicable regulation(s).*"

Interpretation: PI-ZZ-049 Date: 09-22-2000
"Part 192 does not give the right of operators to remove trees along a ROW where landowner agreements and local land use controls may dictate otherwise. Where trees obscure the use of aerial patrols, walking or driving patrols may be employed."

See ATTACHMENT 4 and reference PHMSA "Operations and Maintenance Enforcement Guidance Part 192 Subparts L and M", available online.

Ultimately, the removal of trees in this program hinges upon their necessity to get emergency equipment to the site of a pipe break. This is not rational since driving an energy-charged vehicle near a pipe break with a significant amount of pressurized methane being ejected into the air, would most certainly endanger a neighborhood. Also, please refer to section 1 regarding first responders commentary that immediate access is not procedurally correct. The simple fact is that the pipeline has to be shut down and evacuated of gas before first responders can access the area and any work can begin on a pipeline breach or its after effects.

As far as any claim PG&E gives to the city that they are working under the jurisdiction of state regulations, the city council should request documentation from the California Public Utilities Commission on this issue and directives to PG&E regarding managing established trees as opposed to future tree plantings. The city is accountable to its residents for due diligence on this matter as much as PG&E should be to support any heretofore unsubstantiated compliance claims specific to tree removal.

REASON 4: Lack of review under CEQA

Research from the University of California shows that over 315 species of animals depend on the Coastal Oak habitat, including many birds, reptiles, mammals and amphibians. 80 of these animals are designated as having federal or state special protection status. (Several years ago, I can personally attest to seeing a White Tailed Kite resting over the Lafayette-Moraga Trail; they are a protected species.)

See ATTACHMENT 5 for a full list of coastal oak species.

Anecdotally, many of us have taken evening walks and heard owls, woodpeckers or even seen raccoons in some of the very trees that will be removed. How many creatures depend upon the habitat on the west ridge of the Reservoir Rim Trail, for example? PG&E's tree removal initiative would decimate a large, undisturbed swath of shaded woodland within one of Lafayette's most beautiful ridgelines.

The lack of CEQA study is the main cause given for the County of Santa Cruz successfully resisting PG&E's tree removal program (See ATTACHMENT 6), and for good reason. The wide swath of deforestation along the west side of the Reservoir Rim Trail, for example, would not only create an eyesore, but would be an unprecedented destruction of local woodland territory. In the rush to sign this agreement, PG&E has ignored important environmental regulations and consequences.

PG&E may claim CEQA exemption under Section 15301(b) of Title 14 of the California Code of Regulations which provides an exemption for "repair, maintenance, ...or minor alteration of existing public structures, facilities, mechanical equipment, or topographical features" and specifically applies to "existing facilities of publicly-owned utilities used to provide electric power, natural gas...." This exemption would not apply, as per the language of the agreement; PG&E is claiming they need to remove the trees for improved access for first responders and to check for pipe corrosion. Also there are currently inspection and maintenance methods in place that satisfy public safety standards (as assured by PG&E) which do not disturb the natural environment.

OTHER REASONS:

h. **HEALTH**: Bike riders in nearby unshaded trails know the unpleasantries of a bare cement in summer. Increasing heat waves, such as the one seen during May 1-4 (90 degree temperatures) would be exacerbated without shade. This is a health hazard. As one resident mentioned: *"Those of us who use the trail a lot know exactly where those shaded areas are located, by time and also by season. The shade serves as resting spots for walkers, runners, and bikers. Without the trees we will be baking in the sun. I had a health scare on the trail two years ago, and knew exactly where to find a shade while waiting for help to arrive.*" - Susan Thompson, Moraga.
Also, PG&E stated poisonous herbicides would be used to ensure stump mortality. Poisoning our streets, streams and hillsides is harmful to the health of people and animals.

i. **HOME VALUES**: One neighbor estimated the loss to their property would be greater than $60,000. A large oak on the Lafayette-Moraga Trail shades her yard/house in hot afternoons and under this plan, she would receive no compensation. Another young family that we visited was distraught that their hillside could collapse with the loss of the trees and they were powerless to stop PG&E. Palo Alto requires PG&E to analyze home value impact, tree by tree, with the city, which we believe is a more conscientious approach.

j. **CARBON SEQUESTRATION:** Live oak trees sequester CO2 emissions, thereby helping to reduce the harmful effects of climate change. The oaks living in California alone sequester 325 million tons, with an additional 350 million tons stored in downed logs and protected vegetation. Source: http://californiaoaks.org/wp-content/uploads/2016/04/CarbonResourcesFinal.pdf
Source: http://ucanr.edu/sites/forestry/files/211097.pdf

k. **HISTORIC/CULTURAL PRESERVATION:** There are trees in Lafayette which have value to the community due to their important role in Lafayette's founding. Did anyone from the city research each 272 tree to ensure historic preservation is maintained? For example, according to "Historic

Spots in California: Fifth Edition" by Douglas Kyle, etc. 2002 by Stanford Press, some trees planted along Happy Valley Road were planted by Major Stephen Cooper and Nathaniel Jones in 1846. PG&Es pipeline crosses Happy Valley Rd, and they are planning on removing trees on both sides of the road.

l. **LOVE LAFAYETTE**: Did we mention that many people say they've moved here for the trees? This change will aesthetically alter the look of many popular areas of Lafayette.

SUCCESS STORIES:

Other communities have been more successful in resisting PG&E's unfounded claims. Examples:

1. Santa Cruz: Complete repudiation (SEE ATTACHMENT 6). Very active citizen group.
2. Palo Alto: Complete repudiation.
   In an email on May 4 from Mike Sartor, public works director:
   "*In late 2015 PG&E came to the City of Palo Alto with a proposal to remove several hundred trees over their gas transmission lines located on both private and public property in Palo Alto. In early 2016, after meeting with PG&E, the City and PG&E agreed to stop the removal process until a framework agreement could be worked out between the City and PG&E that would lay out the public process, including tree removal assessments and mitigations, that would be followed if PG&E were to proceed with their CPSI in Palo Alto. The draft framework agreement was provided to PG&E in October 2016 and the City has not heard back from PG&E on this. I would be happy to provide you any additional information on this subject you may need."*
3. Danville: of 200 trees, only 1 was cut (over 99% reduction in trees)

In our opinion, their successes were the result of community notification and involvement early in the process, knowledge around PI-ZZ-049 and using it successfully, claiming CEQA concerns, and having the assistance of several individuals who are experts at PG&E's operations and the federal guidelines.

SUMMARY:

The information we include here is a small fraction of what's been provided to us by many people interested in saving Lafayette trees. We are not, nor claim to be, experts on this matter. We are citizens of Lafayette deeply concerned about the potential loss of trees on our properties and in public places, without due process or public input. We hope to update this document as we learn more, and in the future, would be happy to assist the city in the form of a citizen oversight committee or similar for this concern.

We and a great number of city residents would be justifiably upset that elected city council would wish to continue to be party to an agreement given the reasons listed above. In all of our research in this matter relative to Lafayette and cities across the state, it is our opinion that PG&E has not provided evidence that tree removal directly impacts maintenance of public safety, or conversely, that leaving these trees in place imperils public safety.

Please think of the future. PG&E safety and marketing initiatives will change over time per technology advances as well as reaction to the market's needs. There is no ability to take back the action of removing these trees from our community. We believe all of us living in the city, working for the city, and those working for our utility companies, hold dear the oaks and redwoods that are so integral to the enjoyment and value of our homes, neighborhoods, trails, parks, public spaces. It would be a tragedy to lose these trees on a mass basis when a tree-by-tree collective of a residents, city personnel, and PG&E representatives could analyse and provide more exemptions to save more trees.

For these reasons and more, we ask each member of the City Council to STOP PG&E's destructive cutting scheduled in June by pausing, if not dissolving, the current agreement and by refusing to approve PG&E's forthcoming targeted tree list. We request the immediate creation of a committee of resident, city, and PG&E stakeholders which can collectively re-evaluate each tree at risk for removal as the next step in this process.

Respectfully,

Save Lafayette Trees

Michael and Gina Dawson
711 Los Palos Dr.
Lafayette, CA 94549

"The battle we have fought, and are still fighting for the forests is a part of the eternal conflict between right and wrong, and we cannot expect to see the end of it. ... So we must count on watching and striving for these trees, and should always be glad to find anything so surely good and noble to strive for."

--John Muir, 1896

ATTACHMENTS

ATTACHMENT 1

49 CFR 192.615 - Emergency plans.

eCFR (/cfr/text/49/192.615?qt-ecfrmaster=0#qt-ecfrmaster)

Authorities (U.S. Code) (/cfr/text/49/192.615?qt-ecfrmaster=1#qt-ecfrmaster)

What Cites Me (/cfr/text/49/192.615?qt-ecfrmaster=3#qt-ecfrmaster)

prev (/cfr/text/49/192.614) | next (/cfr/text/49/192.616)

§ 192.615 Emergency plans.

(a) Each operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=1&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Subp shall establish written procedures to minimize the hazard resulting from a gas (/definitions/index.php?width=840&height=800&iframe=true&def_id=331fb848a06944165147f12d3801e19a&term_occur=1&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Subpa pipeline (/definitions/index.php?width=840&height=800&iframe=true&def_id=b202c1e0ba67f95a606834ddfc438494&term_occur=1&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Subpa emergency. At a minimum, the procedures must provide for the following:

(1) Receiving, identifying, and classifying notices of events which require immediate response by the operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=2&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:

(2) Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials.

(3) Prompt and effective response to a notice of each type of emergency, including the following:

(i) Gas (/definitions/index.php?width=840&height=800&iframe=true&def_id=331fb848a06944165147f12d3801e19a&term_occur=2&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:1 detected inside or near a building.

(ii) Fire located near or directly involving a pipeline facility (/definitions/index.php?width=840&height=800&iframe=true&def_id=b1bd8fc49f352c012e0ed7eb5574d50a&term_occur=1&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:1

(iii) Explosion occurring near or directly involving a pipeline facility (/definitions/index.php?width=840&height=800&iframe=true&def_id=b1bd8fc49f352c012e0ed7eb5574d50a&term_occur=2&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:1

(iv) Natural disaster.

(4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.

(5) Actions directed toward protecting people first and then property.

(6) Emergency shutdown and pressure reduction in any section of the operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=3&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192: pipeline (/definitions/index.php?width=840&height=800&iframe=true&def_id=b202c1e0ba67f95a606834ddfc438494&term_occur=2&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su system necessary to minimize hazards to life or property.

(7) Making safe any actual or potential hazard to life or property.

(8) Notifying appropriate fire, police, and other public officials of gas (/definitions/index.php?width=840&height=800&iframe=true&def_id=331fb848a06944165147f12d3801e19a&term_occur=3&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su pipeline (/definitions/index.php?width=840&height=800&iframe=true&def_id=b202c1e0ba67f95a606834ddfc438494&term_occur=3&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su emergencies and coordinating with them both planned responses and actual responses during an emergency.

(9) Safely restoring any service outage.

(10) Beginning action under § 192.617 (https://www.law.cornell.edu/cfr/text/49/192.617), if applicable, as soon after the end of the emergency as possible.

(11) Actions required to be taken by a controller (/definitions/index.php?width=840&height=800&iframe=true&def_id=c82f273c31232f67cfee0b4f7d129c02&term_occur=1&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Sub during an emergency in accordance with § 192.631 (https://www.law.cornell.edu/cfr/text/49/192.631).

(b) Each operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=4&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Subp shall:

(1) Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures.

(2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.

(3) Review employee activities to determine whether the procedures were effectively followed in each emergency.

(c) Each operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=5&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Subp shall establish and maintain liaison with appropriate fire, police, and other public officials to:

(1) Learn the responsibility and resources of each government organization that may (/definitions/index.php?width=840&height=800&iframe=true&def_id=906860f6608237382b2b18818dc14804&term_occur=1&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:S respond to a gas (/definitions/index.php?width=840&height=800&iframe=true&def_id=331fb848a06944165147f12d3801e19a&term_occur=4&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su pipeline (/definitions/index.php?width=840&height=800&iframe=true&def_id=b202c1e0ba67f95a606834ddfc438494&term_occur=4&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su emergency;

(2) Acquaint the officials with the operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=6&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:S ability in responding to a gas (/definitions/index.php?width=840&height=800&iframe=true&def_id=331fb848a06944165147f12d3801e19a&term_occur=5&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su pipeline (/definitions/index.php?width=840&height=800&iframe=true&def_id=b202c1e0ba67f95a606834ddfc438494&term_occur=5&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su emergency;

(3) Identify the types of gas (/definitions/index.php?width=840&height=800&iframe=true&def_id=331fb848a06944165147f12d3801e19a&term_occur=6&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su pipeline (/definitions/index.php?width=840&height=800&iframe=true&def_id=b202c1e0ba67f95a606834ddfc438494&term_occur=6&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:Su emergencies of which the operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=7&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:S notifies the officials; and

(4) Plan how the operator (/definitions/index.php?width=840&height=800&iframe=true&def_id=28b716172a34cbbb4081b98087993d62&term_occur=8&term_src=Title:49:Subtitle:B:Chapter:I:Subchapter:D:Part:192:S and officials can engage in mutual assistance to minimize hazards to life or property.

[Amdt. 192-24, 41 FR 13587 (https://www.law.cornell.edu/rio/citation/41_FR_13587), Mar. 31, 1976, as amended by Amdt. 192-71, 59 FR 6585 (https://www.law.cornell.edu/rio/citation/59_FR_6585), Feb. 11, 1994; Amdt. 192-112, 74 FR 63327 (https://www.law.cornell.edu/rio/citation/74_FR_63327), Dec. 3, 2009]

PACIFIC GAS AND ELECTRIC COMPANY
Gas Operations Data Response

PG&E Data Request Index No.:	10803		
Request Date:	04-27-2017	Date Sent:	05-01-2017
Requesting Party:	GOST-CUSTOMER		
External Requester:	Michael Dawson	PG&E Contact:	Valery Jorgensen

QUESTION 10803.01: Installation dates of pipelines (requested in Index 10792)
RESPONSE 10803.01: Gas transmission pipeline Line 191-1 and Distribution Feeder Main (DFM) 3001-01 are near the Lafayette-Moraga Regional Trail in Lafayette. Please refer to the table below for pipeline specifications for L-191-1 and DFM 3001-01 in this area.

Gas Transmission Pipeline	Material	Maximum Allowable Operating Pressure (MAOP) (psig)[1]	Diameter (Inches)	Installation Year	Specified Minimum Yield Strength[2] (SMYS)	Strength Test
191-1	Steel	283	12	Majority was installed in 1962, with smaller portions installed in 2014.	17.2%	The majority of this line was successfully pressure tested in 2014.
191-1	Steel	338	12 & 16	Majority was installed in 1967, with smaller portions installed in 1962 and 2013.	22.9%	The majority of this line was successfully pressure tested in 2013.
DFM 3001-01	Steel	170	4 &12	Installed between 1947 and 1983, with a smaller portion installed in 2016.	32.0%	The majority of this line was successfully pressure tested between 1963 and 1983.

[1]Pounds per square inch gage (psig).
[2]The Specified Minimum Yield Strength (SMYS) is used by engineers to assess the degree to which the pipeline steel is under stress while operating. As such, a lower SMYS percentage means that the pipe is in a low stress condition. 100% SMYS is not a measure of full pipeline utilization; rather it is a condition where the pipeline is stressed to the point of mechanical failure (deformation).

QUESTION 10803.02: What is the size of the pipelines and what material are they made out of?

RESPONSE 10803.02: Please see Response 10803.01.

QUESTION 10803.03: Provide the maintenance frequency and history of the pipelines (patrols, leak surveys, cathodic protection system inspections and integrity assessments)

RESPONSE 10803.03: PG&E has a comprehensive inspection and monitoring program to ensure the safety of its natural gas transmission pipeline system. PG&E regularly conducts patrols, leak surveys, and cathodic protection (corrosion protection) system inspections for its natural gas pipelines. Any issues identified as a threat to public safety are addressed immediately. PG&E also performs integrity assessments of certain gas transmission pipelines in urban and suburban areas.

- **Patrols:** PG&E patrols its gas transmission pipelines at least quarterly to look for indications of construction activity and other factors affecting pipeline safety and operation.
    - Line 191-1 in this area was last aerial patrolled in April 2017, and there were no reported observations. Due to vegetative cover, portions Line 191-1 in your area were unable to be aerial patrolled in April 2017; however, those portions of the pipeline were last ground patrolled in April 2017, and there were no reported observations.
    - DFM 3001-01 in this area was last aerial patrolled in April 2017, and there were no reported observations. Due to vegetative cover, portions DFM 3001-01 in your area were unable to be aerial patrolled in April 2017; however, those portions of the pipeline were last ground patrolled in April 2017, and there were no reported observations.

- **Leak Surveys:** PG&E conducts leak surveys of its natural gas transmission pipelines semi-annually. Leak surveys are either conducted by a leak surveyor walking above the pipeline with leak detection instruments or conducted aerially and followed-up with a ground leak survey if there is a leak indication identified during the aerial survey.
    - Line 191-1 in this area was last leak surveyed in April 2017, and no leaks were found.
    - DFM 3001-01 in this area was last leak surveyed in April 2017, and no leaks were found.

- **Cathodic Protection System Inspections:** PG&E utilizes an active cathodic protection (CP) system on its gas transmission and steel distribution pipelines to protect them against corrosion. PG&E inspects its CP systems annually to ensure they are operating correctly.
    - The CP systems on Line 191-1 in this area were last inspected in November 2016, and were found to be operating correctly.
    - The CP systems on DFM 3001-01 in this area were last inspected in December 2016, and were found to be operating correctly.

- **Integrity Assessments:** PG&E incorporates three federally-approved methods in its Transmission Integrity Management Program: In-Line Inspections (ILI), Direct Assessment (DA) and Pressure Testing. An In-Line Inspection involves a tool (commonly known as a "pig") being inserted into the pipeline to identify any areas of concern such as potential metal loss (corrosion) or geometric abnormalities (dents) in the pipeline. Direct Assessment may involve any of three separate processes to assess for the presence of External Corrosion (EC), Internal Corrosion (IC) and Stress Corrosion Cracking (SCC), depending on the specific threat(s) identified. During ECDA, ICDA or SCCDA, the pipe is excavated in order to perform direct examination of the pipe

in identified areas of concern. Pressure testing is a strength test normally conducted using water, which is also referred to as a hydrostatic test.

PG&E performs pipeline integrity assessments on its sections of transmission pipeline in high consequence areas (HCAs) at least every seven years. The maximum allowable reassessment interval for integrity assessments are summarized in the Code of Federal Regulations (CFR) (see 49 CFR Part 192, Subpart O). Line 191-1 had an ECDA in 2013. This assessment identified no issues requiring corrective action.

QUESTION 10803.04: What is the depth of cover for the pipelines?

RESPONSE 10803.04: Please see below for the depth of cover approximations for L-191-1 and DFM 3001-01 in this area:

- PG&E's records indicate a depth of cover ranging from approximately 1.1 feet to approximately 8.9 feet for Line 191-1 near the Lafayette-Moraga Regional Trail in Lafayette.
- PG&E's records indicate a depth of cover ranging from approximately 1.6 feet to approximately 11.5 feet for DFM 3001-01 near the Lafayette-Moraga Regional Trail in Lafayette.

In addition, PG&E's records indicate a depth of cover ranging from approximately 4.5 feet to approximately 6.6 feet for DFM 3001-01 near your residence in Lafayette.

Please note that pipeline depth of cover may vary significantly over the length of the pipeline and is subject to change over time as land leveling and construction affects the amount of cover. Furthermore, without digging and exposing a pipeline, it is not possible to determine the exact depth at specific locations.

Please always call 811 at least two working days in advance of any digging or landscaping project to allow crews to mark the location of all underground utilities before any work begins (a free service).

QUESTION 10803.05: What is the maximum operating pressure for both lines?

RESPONSE 10803.05: Please see Response 10803.01.

QUESTION 10803.06: Are there automated valves or manual valves on the lines? Where are the nearest valves located?

RESPONSE 10803.06: PG&E is compiling this information and will provide it as soon as it becomes available.

QUESTION 10803.07: Are there any welds on the pipelines in this area? If there are welds, please provide background information on the welds (for example: location, type, etc.)

RESPONSE 10803.07: PG&E is compiling this information and will provide it as soon as it becomes available.

QUESTION 10803.08: as well as a map of the proposed work for the area (see attached).

RESPONSE 10803.08: Please see attachment "*Index 10803-08_Lafayette_city_CPSI_vers20170428.pdf*" for a map of the unacceptable risk vegetation encroachments in the City of Lafayette.

Please see below for the map specifications:

- Map Scale: 1:13,200
- Size: 8.5" x 11" (portrait)
- Basemap: Imagery
- Tree Proposed for Removal Symbology
    - Unacceptable Risk Tree: Green circle with white outline
- City Boundary: Symbolized as dashed grey line
- Highways, interstates, routes and roads labeled for reference
- Orange extent indicator on the inset map

QUESTION 10803.09: Please provide close-up map(s) of proposed work areas along the Lafayette-Moraga Regional Trail in Lafayette.

RESPONSE 10803.09: PG&E is still preparing these maps and will provide them as soon as possible.

Soil Stiffness

Look online for: https://pgjonline.com/2016/06/01/report-card-has-pge-passed-the-test/

"San Francisco-based PG&E, one of the nation's largest investor-owned utilities with 6,700 miles of high pressure transmission pipeline and 42,000 miles of distribution main, had to conduct critical safety pressure tests on segments of the line running through Santa Cruz in 2015 as part of an accelerated testing and replacement effort that the combination utility has been conducting the past five years in the wake of the San Bruno, CA tragedy that killed eight residents and injured scores more. The testing was to take several weeks, involving time-consuming, worker-intensive hydrostatic tests that are designed to detect and repair problems before they happen."

Look online for: Buried Pipe Failures Dependent on Soil Stiffness Agostino Napolitano

"The amount of deflection induced by installation that will occur in any buried pipe depends on three factors: **pipe stiffness, soil stiffness, and earth load and surface load due to construction equipment.** Measurements made by Marston and Spangler equations reveal the load on a flexible pipe is substantially less than that on a rigid pipe. The level of lateral earth load also depends on the nature of the backfill and its level of compaction, as well as the stiffness of the side walls of a trench, if the pipe sits in a trench rather than in an embankment fill."

"Therefore, it should be readily appreciated that the backfill and its construction are vital to the performance of a flexible pipe. Unfortunately, designers have placed too much attention on the structural properties of the pipe rather than on the soil."

"There are many pertinent variables in the complex interaction of pipe and soil. For pipes, one widely recognized variable is pipe flexibility, D/t, which is an inverse form of pipe stiffness, EI/D3, and may be used for analyses involving pipe stiffness of plain steel pipe (no mortar linings or coatings)."

"Pipe flexibility (D/t) normally ranges between 30 and 100 for oil and gas onshore pipelines. Another common variable is pipe deflection, Dx/D. For soil, the most pertinent variables are the friction angle f and the vertical strain of sidefill embedment, e. An approximation of strain is given by e = s/E' where s is the vertical soil stress, and **E' is the soil stiffness modulus**."

"Sidefill soil, on the opposite, is compressed vertically, compressed horizontally (radially) and confined longitudinally (biaxial compression) for which the compression (vertical strain) is less than it is for confined compression tests. To define if the behavior of a pipe is flexible or rigid, it is convenient to consider the stiffness ratio Rs as the ratio between soil stiffness and pipe stiffness:
Rs = E' / (EI/D3) = E'D3/EI
Where:
E' is the soil stiffness modulus of the soil (slope of a secant on the stress strain diagram);
EI/D3 = E/12(D/t)3 is the pipe stiffness, where I is the transverse moment of inertia per unit length of individual pipe wall components.
Soil stiffness E' can vary from 100 kPa for damped soil to 50-100 Mpa for well-compacted, coarse-grained soil. Pipe stiffness EI/D3 is inversely related to pipe flexibility D/t and reduces progressively to zero for high D/t values. Usually pipe stiffness contributes significant resistance to pipe deflection if Rs is less than about 200, or D/t less than 50 (Figure 2). **Conversely, soil stiffness is crucial for flexible pipes and Rs is usually greater than 200."**

Look online for: https://mceer.buffalo.edu/pdf/report/99-MN03.pdf in Google Chrome

"Pipelines can be categorized as either continuous or segmented. Steel pipelines with welded joints are considered to be continuous while segmented pipelines include cast iron pipe with caulked or rubber gasketed joints, ductile iron pipe with rubber gasketed joints, concrete pipe, asbestos cement pipe, etc. The earthquake safety of buried pipelines has attracted a great deal of attention in recent years. Important characteristics of buried pipelines are that they generally cover large areas and are subject to a variety of geotectonic hazards. Another characteristic of buried pipelines, which distinguishes them from above-ground structures and facilities, is that the relative movement of the pipes with respect to the surrounding soil is generally small and the inertia forces due to the weight of the pipeline and its contents are relatively unimportant. Buried pipelines can be damaged either by permanent movements of ground (i.e. PGD, Permanent Ground Displacement) or by

transient seismic wave propagation."

"Permanent ground movements include surface faulting, lateral spreading due to liquefaction, and landsliding. Although PGD hazards are usually limited to small regions within the pipeline network, their potential for damage is very high since they impose large deformation on pipelines. On the other hand, the wave propagation hazards typically affect the whole pipeline network, but with lower damage rates (i.e., lower pipe breaks and leaks per unit length of pipe). For example, during the 1906 San Francisco earthquake, the zones of lateral spreading accounted for only 5% of the built-up area affected by strong ground shaking. However, approximately 52% of all pipeline breaks occurred within one city block of these zones, according to T. O'Rourke et al., (1985). Presumably the remaining 48% of pipeline damage was attributed to wave propagation. Hence, although the total amount of damage due to PGD and wave propagation was roughly equal, the damage rate in the small isolated areas subject to PGD was about 20 times higher than that due to wave propagation."

Here we are looking at the relationship between **dead tree roots, pore pressure, soil liquefaction**, and pipeline failure in an earthquake.

Look online for: http:\\www.nap.edu\read\2269\chapter\7#140

"Experience during the Loma Prieta earthquake confirmed the ruggedness of buried, welded steel pipeline systems located in **competent** soils." The PG&E high-pressure transmission system suffered only two cracked welds in a 12-inch-diameter, 1930s vintage pipeline, which were repaired without interruption of service. Of the 25 distribution main repairs made in San Francisco, 23 were to older cast-iron pipe, and 20 were in areas known to have experienced permanent ground deformation (Phillips and Virostek, 1990; Honegger, 1991)"

"Damage from to gas distribution lines in the city of San Francisco was largely limited to areas that experienced permanent ground deformation resulting from liquefaction, slope failure and settlement of alluvial sediment."

Note: **liquefaction, slope failure**, and **settlement** are all examples of excessive water accumulation.

Look online for: 11_2172.pdf o'rourke pease

If you have seen videos of liquefaction, you would assume that it only occurs on the ground surface, but surprisingly it can occur deeper, without any surface liquefaction. Figure 10 below, from page 13, shows that possibility, but it also brings up the fact that trees with deep tap roots can desiccate deep soil, preventing surface displacement. A reminder here, that 99% of the water a tree absorbs, is lost through evapo-transpiration.

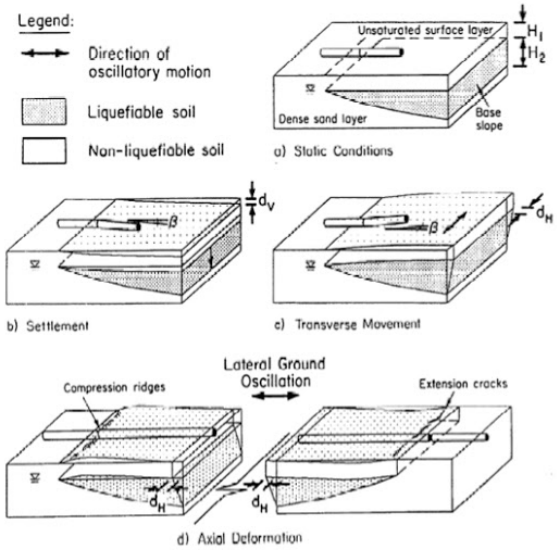

Fig. 10. Schematic of buried pipeline response to transient displacements at a liquefaction site (O'Rourke and Pease, 1995)

Look online for: https://mceer.buffalo.edu/pdf/report/99-MN03.pdf in Google Chrome

"For a pipeline located in a liquefied layer as opposed to a **competent** layer, Suzuki et al. (1988) and Miyajima and Kitaura (1989) have shown that the pipe response is very **sensitive to the stiffness of the equivalent soil** springs. This subsection will discuss the equivalent stiffness of soil springs for a pipe in liquefied soil. Combining experimental data with analytical solutions based on a beam on an elastic foundation approach, Takada et al. (1987) developed an equivalent soil spring for a pipe in a liquefied soil. **They indicate that the equivalent stiffness ranges from 1/1000 to 1/3000 of that for non-liquefied soil.** On the other hand, Yoshida and Uematsu (1978), Matsumoto et al. (1987), Yasuda et al. (1987), and Tanabe (1988) suggest that the stiffness ranges from 1/100 to 3/100 of that for non-liquefied soil based on their model experiments."

"Miyajima and Kitaura (1991) also conducted model tests which indicated that the stiffness is related to the effective stress in the liquefied soil. That is, the soil spring constant is an increasing function of effective stress and hence, a decreasing function of **excess pore water pressure ratio.**"

"These mitigation techniques involve various types of field treatments to reduce the potential for lateral spreading. The methods include increasing the density and strength of sand, lowering the ground water level and **increasing the dissipation of pore water pressure**. For example, Miyajima et al. (1992) proposed a vertical gravel drain system along the pipeline right-of-way which reduces the maximum pore water pressures. Fujii et al. (1992) suggest sand and compaction as a technique to increase soil density and strength, and thereby reduce the potential for liquefaction. Iwatate et al. (1988) performed experiments on buried culverts which drain ground water away from the pipeline. Finally, one could replace liquefaction soils in the vicinity of the pipe with nonliquifiable materials such as gravel to reduce the potential for liquefaction."

Or in our particular case the best desiccator available, live tree roots.

Look online for: PIPELINES PIPA-Report-Final-20101117

Page 65

"Runoff drains and gutters should not funnel water directly into the transmission pipeline ROW, as excess water could erode pipeline soil cover and subsurface pipeline support and could impact pipeline corrosion protection systems."

Look online for: LANDSLIDES Processes, Prediction, and Land Use Roy C. Sidle Hirotaka Ochiai

Chapter 6

"Almost all of the effects of forest harvesting discussed in this section are related to shallow, rapid landslides, where the deterioration of woody roots greatly affects the observed or modeled increases in landslide frequency and erosion. Although evidence has already been presented that indicates clearcutting may predispose shallow soil mantles to **higher pore pressures** during moderate storms following clearcutting..."

Look online for: PublicReviewDraft2042.Pdf

"ASME/ANSI 401.2.3.1 Earthquakes. The following effects shall

be considered when designing for earthquakes:

(a) direct effects due to ground vibrations
(b) induced effects (liquefaction, landslides)
(c) effects due to crossing of active faults at the surface"

Roots have been shown to exert a root pressure on their of compacted earth of greater than 1MPa (145psi), the loss of which can dramatically effect soil stability, leading to subduction or liquefaction. The cutting of a tree results in the gradual breakdown of soil stiffness, loss of desiccating ability, and the loss of deep root desiccation of potential liquefaction layers. The loss of such stiffness, should be of great concern, since it will not be immediate, but most assuredly it will have a dramatic, if not, catastrophic effect in future years.

PI-01-0106
The Honorable Arlen Specter
United States Senator
600 Arch Street, Suite 9400
Philadelphia, PA 19106

Dear Senator Specter:
Thank you for your letter to David Marks, Deputy Assistant Secretary for Congressional Affairs, concerning negotiations between the East Goshen Conservancy Board and the Duke Energy Corporation over Duke Energy's plan to cut trees on its pipeline easement in East Goshen Township. Your letter has been referred to the Research and Special Programs Administration(RSPA) for response. RSPA is responsible for administering the Federal pipeline safety program.

As stated in the incoming correspondence, Duke Energy plans to cut down trees to facilitate routine inspection of its easement by aerial patrol. It also wants to remove trees to make it easier for large equipment to gain access to the easement for normal maintenance and emergency response.
Pipeline operated by Duke Energy are subject to the safety regulations of the Department of Transportation. These regulations require pipeline operators to patrol to patrol their easements for signs of leaks and construction activity. Although it is not a federal requirement to keep the right-of-way is clear. However, **federal regulations do not give operators a right to cut down trees on their pipeline easements. An operator's authority to cut down trees is subject to private agreements with landowners and to any local land use controls**.

If we can be of further assistance, please contact me or Patricia Klinger, Director of External Communications, at (202) 366-4831.

Sincerely yours,
Elaine E. Joost
Acting Deputy Administrator

The above letter was a written response from the Pipeline and Hazardous Materials Safety Administration, it is a direct quote from the Federal pipeline safety regulations (49 CFR Parts 190-199) and contains legally binding requirements.

Interpretation: **PI-ZZ-049 Date: 09-22-2000**

"Part 192 does not give the right of operators to remove trees along a ROW where landowner agreements and local land use controls may dictate otherwise. Where trees obscure the use of aerial patrols, walking or driving patrols may be employed."

Wildlife Species Using California Coastal Oak Trees and Habitat

Source: University of California, Division of Agriculture and Natural Resources

YELLOW = special/protected status species

Coastal Oak Woodland Birds

Species List

		Habitat Elements						Special Status		
Common Name	**Scientific Name**	**Acorns**	**Riparian**	**Logs**	**Snags**	**Burrow**	**Vernal**	**Federal status**	**State status**	**Harvest species**
Acorn Woodpecker	Melanerpes formicivorus	x	x	.	x	.	.	.	.	.
Allen's Hummingbird	Selasphorus sasin	.	x	.	.	.	.	.	.	.
American Crow	Corvus brachy-rhynchos	.	x	.	.	.	x	.	.	.
American Goldfinch	Carduelis tristis	.	x	.	.	.	.	.	.	.
American Kestrel	Falco sparverius	.	x	.	x	x	x	.	.	.
American Robin	Turdus migratorius	.	x	.	.	.	.	.	.	.
Anna's Hummingbird	Calypte anna	.	x	.	.	.	.	.	.	.
Ash-Throated Flycatcher	Myiarchus cinerascens	.	x	.	.	.	.	.	.	.
Bald Eagle	Haliaeetus leucocephalus	.	x	.	x	x	x	Threat	End., Prot.	.
Band-Tailed Pigeon	Columba fasciata	x	x	.	x	.	.	.	.	x
Barn Owl	Tyto alba	.	x	.	x	x	x	.	.	.
Barn Swallow	Hirundo rustica	.	x	.	.	x	x	.	.	.
Bewick's Wren	Thryomanes bewickii	.	x	x	.	x	.	.	.	.
Black Swift	Cypseloides niger	.	x	.	.	x	.	.	Spec. conc.	.
Black-Chinned Hummingbird	Archilochus alexandri	.	x	.	.	.	.	.	.	.
Black-Crowned Night Heron	Nycticorax nycticorax	.	x	.	.	.	x	.	.	.
Black-Headed Grosbeak	Pheucticus melano-cephalus	.	x	.	.	.	.	.	.	.
Black-Throated Gray Warbler	Dendroica nigrescens	.	x	.	.	.	.	.	.	.
Blue-Gray Gnatcatcher	Polioptila caerulea	.	x	.	.	.	.	.	.	.
Brewer's Blackbird	Euphagus cyanocephalus	.	x	.	.	.	x	.	.	.
Brown Creeper	Certhia americana	.	x	.	x	.	.	.	.	.
Brown-Headed Cowbird	Molothrus ater	.	x	.	.	.	x	.	.	.
Burrowing Owl	Speotyto cunicularia	.	x	.	.	x	.	Cand.	Spec. conc.	.
Bushtit	Psaltriparus minimus	.	x	.	.	.	.	.		.
California Condor	Gymnogyps californianus	.	.	.	x	x	.	End.	End.	.
California Gnatcatcher	Polioptila californica	.	x	.	.	.	.	Threat	Threat	.
California Quail	Callipepla californica	x	x	x	.	.	.	.	.	x
California Thrasher	Toxostoma redivivum	.	x	.	.	.	.	.	.	.
California Towhee	Pipilo crissalis	.	x	x	.	.	.	Threat	End. (c)	.
Calliope Hummingbird	Stellula calliope	.	x	.	.	.	.	.	.	.
Cassin's Kingbird	Tyrannus vociferans	.	x	.	.	.	.	.	.	.
Cattle Egret	Bubulcus ibis	.	x	.	.	.	x	.	.	.
Cedar Waxwing	Bombycilla cedrorum	.	x	.	.	.	.	.	.	.
Chestnut-Backed Chickadee	Parus rufescens	.	x	.	x	.	.	.	.	.
Chipping Sparrow	Spizella passerina	.	x	.	.	.	.	.	.	.
Cliff Swallow	Hirundo pyrrhonota	.	x	.	.	x	x	.	.	.
Common Nighthawk	Chordeiles minor	.	x	.	.	.	x	.	.	.
Common Poorwill	Phalaenoptilus nuttallii	.	.	x	.	x	.	.	.	.
Common Raven	Corvus corax	.	x	.	.	x	x	.	.	.
Cooper's Hawk	Accipiter cooperii	.	x	.	x	.	.	.	Spec. conc.	.
Dark-Eyed Junco	Junco hyemalis	.	x	x	.	.	.	.	Spec. conc. (c)	.
Downy Woodpecker	Picoides pubescens	.	x	.	x	.	.	.	.	.
Dusky Flycatcher	Empidonax oberholseri	.	x	.	.	.	.	.	.	.
European Starling	Sturnus vulgaris	.	x	.	x	.	x	.	.	.
Evening Grosbeak	Coccothraustes vespertinus	.	x	.	.	.	.	.	.	.
Ferruginous Hawk	Buteo regalis	.	x	.	x	x	x	Cand.	.	.
Fox Sparrow	Passerella iliaca	.	x	.	.	.	.	.	.	.
Golden Eagle	Aquila chrysaetos	.	x	.	x	x	x	.	Prot.	.
Golden-Crowned Kinglet	Regulus satrapa	.	x	.	.	.	.	.	.	.
Golden-Crowned Sparrow	Zonotrichia atricapilla	.	x	x	.	.	.	.	.	.
Great Blue Heron	Ardea herodias	.	x	.	.	.	x	.	.	.
Great Egret	Casmerodius albus	.	x	.	.	.	x	.	.	.
Great Horned Owl	Bubo virginianus	.	x	.	x	x	x	.	.	.
Greater Roadrunner	Geococcyx californianus	.	x	.	.	.	.	.	.	.
Green Heron	Butorides virescens	.	x	.	.	.	x	.	.	.
Hairy Woodpecker	Picoides villosus	x	x	x	x	.	.	.	.	.
Hammond's Flycatcher	Empidonax hammondii	.	x	.	.	.	.	.	.	.
Hermit Thrush	Catharus guttatus	.	x	.	.	.	.	.	.	.
Hermit Warbler	Dendroica occidentalis	.	x	.	.	.	.	.	.	.
Horned Lark	Eremophila alpestris	.	.	.	.	.	.	.	Spec. conc.	.
House Finch	Carpodacus mexicanus	.	x	.	.	x	.	.	.	.
House Sparrow	Passer domesticus	.	x	.	x	.	.	.	.	.
House Wren	Troglodytes aedon	.	x	x	x	.	.	.	.	.
Hutton's Vireo	Vireo huttoni	.	x	.	.	.	.	.	.	.
Lark Sparrow	Chondestes grammacus	.	x	.	.	.	.	.	.	.
Lawrence's Goldfinch	Carduelis lawrencei	.	x	.	.	.	.	.	.	.
Lazuli Bunting	Passerina amoena	.	x	.	.	.	.	.	.	.

Yellow-Billed Magpie	Pica nuttalli	x	x	.	.	.	.	.	.	.
Yellow-Rumped Warbler	Dendroica coronata	.	x	.	.	.	.	.	.	.

Coastal Oak Woodland Mammals

Species List

		Habitat Elements						Special Status		
Common Name	Scientific Name	Acorns	Riparian	Logs	Snags	Burrows	Vernal	Federal status	State status	Harvest species
Allen's Chipmunk	Tamias senex	.	x	x	x	x	.	.	.	.
American Badger	Taxidea taxus	.	x	.	.	x	x	.	.	x
Barbary Sheep	Ammotragus lervia	.	.	.	.	x	.	.	.	x
Beaver	Castor canadensis	.	x	x	.	x	x	.	.	x
Big Brown Bat	Eptesicus fuscus	.	x	.	x	x	x	.	.	.
Black Rat	Rattus rattus	.	x	.	.	x	.	.	.	.
Black-Tailed Hare	Lepus californicus	.	x	.	.	.	.	.	Spec. conc.	x
Bobcat	Felis rufus	.	x	x	.	x	x	.	.	x
Botta's Pocket Gopher	Thomomys bottae	.	x	.	.	x	.	Cand. (c)	.	.
Brazillian Free-Tailed Bat	Tadarida brasiliensis	.	x	.	.	x	x	.	.	.
Broad-Footed Mole	Scapanus latimanus	.	x	.	.	.	.	Cand.	Spec. conc. (a)	.
Brush Mouse	Peromyscus boylii	x	x	x	x	x	.	.	.	.
Brush Rabbit	Sylvilagus bachmani	.	x	x	.	x	.	Cand.	End. (a)	.
California Chipmunk	Tamias obscurus	x	.	x	.	x	.	.	.	.
California Ground Squirrel	Spermophilus beecheyi	x	x	x	.	x	.	.	.	.
California Kangaroo Rat	Dipodomys californicus	.	.	.	.	x	.	Cand.	Spec. conc. (c)	.
California Mouse	Peromyscus californicus	x	x	x	x	x	.	.	.	.
California Myotis	Myotis californicus	.	x	.	x	x	x	.	.	.
California Pocket Mouse	Chaetodipus californicus	.	.	.	.	x	.	Cand.	Spec. conc. (c)	.
California Vole	Microtus californicus	.	x	.	.	x	.	End., cand.	End., Spec con	.
Coyote	Canis latrans	.	x	x	x	x	x	.	.	x
Deer Mouse	Peromyscus maniculatus	x	x	x	.	x	x	Cand.	Spec. conc. (b)	.
Desert Cottontail	Sylvilagus audubonii	x	x	.	.	.	.	.	.	.
Dusky-Footed Woodrat	Neotoma fuscipes	x	x	x	.	.	.	Cand.	Spec. conc.	.
Elk	Cervus elaphus	x	x	.	.	.	x	.	.	x
Fallow Deer	Cervus dama	.	.	x	.	.	x	.	.	x
Feral Goat	Capra hircus	.	x	.	.	x	.	.	.	x
Fox Squirrel	Sciurus niger	x	x	.	x	.	.	.	.	x
Fringed Myotis	Myotis thysanodes	.	x	.	.	x	x	.	.	.
Gray Fox	Urocyon cinereo-argenteus	.	x	x	x	x	x	.	.	x
Heermann's Kangaroo Rat	Dipodomys heermanni	.	x	.	.	x	.	End.	End., Prot. (c)	.
Himalayan Tahr	Hemitragus jemlahicus	.	.	.	.	x	.	.	.	x
Hoary Bat	Lasiurus cinereus	.	x	.	x	.	x	.	.	.
House Mouse	Mus musculus	.	x	x	.	x	x	.	.	.
Island Fox	Urocyon littoralis	x	.	x	.	x	.	Cand.	Threat (b)	.
Kit Fox	Vulpes macrotis	.	x	.	.	x	.	End.	Threat (c)	.
Little Brown Myotis	Myotis lucifugus	.	x	.	x	x	x	Cand.	Spec. conc. (c)	.
Little Pocket Mouse	Perognathus longimembris	.	.	.	.	x	.	End., Cand.	Spec. conc. (c)	.
Long-eared Myotis	Myotis evotis	.	x	.	x	x	x	.	.	.
Long-Legged Myotis	Myotis volans	.	x	.	x	x	x	.	.	.
Long-Tailed Weasel	Mustela frenata	.	x	x	x	x	x	.	.	x
Marsh Shrew	Sorex bendirii	.	x	x	.	.	x	.	.	.
Merriam's Chipmunk	Tamias merriami	x	x	x	x	x	.	.	.	.
Mountain Lion	Felis concolor	.	x	.	x	x	x	Cand.	Spec. conc., Pr	.
Mule Deer	Odocoileus hemionus	x	x	.	.	.	x	.	.	x
Narrow-Faced Kangaroo Rat	Dipodomys venustus	.	.	.	.	x	.	.	.	.
Northern Flying Squirrel	Glaucomys sabrinus	x	x	x	x	.	.	Cand.	.	.
Norway Rat	Rattus norvegicus	.	x	.	.	x	.	.	.	.
Ornate Shrew	Sorex ornatus	.	x	x	.	x	x	Cand.	Spec. conc. (a)	.
Pacific Kangaroo Rat	Dipodomys agilis	.	x	.	.	x	.	.	.	.
Pallid Bat	Antrozous pallidus	.	x	.	.	x	x	.	Spec. conc.	.
Porcupine	Erethizon dorsatum	.	x	x	x	x	x	.	.	.
Racoon	Procyon lotor	x	x	x	x	x	x	.	.	x
Ringtail	Bassariscus astutus	.	x	x	x	x	x	.	Prot.	.
River Otter	Lutra canadensis	.	x	x	x	x	x	Cand.	Spec. conc. (a)	.
Sambar	Cervus unicolor	.	.	.	.	.	.	.	.	x
San Joaquin Pocket Mouse	Perognathus inornatus	.	.	.	.	x	.	Cand.	Spec. conc. (c)	.
Silver-Haired Bat	Lasionycteris noctivagans	.	x	.	x	x	x	.	.	.
Sonoma Chipmunk	Tamias sonomae	x	x	x	x	x	.	.	.	.
Southern Yellow Bat	Lasiurus xanthinus	.	x	.	.	.	.	.	.	.
Spotted Bat	Euderma maculatum	.	x	.	.	x	x	Cand.	Spec. conc.	.
Striped Skunk	Mephitis mephitis	.	x	x	.	x	x	.	.	x
Townsend's Big-Eared Bat	Plecotus townsendii	.	x	.	.	x	x	Cand.	Spec. conc.	.
Trowbridge's Shrew	Sorex trowbridgii	.	x	x	.	.	.	.	.	.
Vagrant Shrew	Sorex vagrans	.	x	x	.	.	x	Cand.	Spec. conc. (a)	.
Virginia Opossum	Didelphis virginiana	x	x	x	x	x	x	.	.	x
Western Gray Squirrel	Sciurus griseus	x	x	x	x	.	.	.	.	x
Western Harvest Mouse	Reithrodon-tomys megalotis	.	x	.	.	.	x	.	.	.

Western Mastiff Bat	Eumops perotis	.	x	.	.	x	x	Cand.	Spec. conc.	.
Western Pipistrelle	Pipistrellus hesperus	.	x	.	.	x	x	.	.	.
Western Red Bat	Lasiurus blossevillii	.	x	.	x	x	x	.	.	.
Western Small-Footed Myotis	Myotis ciliolabrum	.	x	.	x	x	x	.	.	.
Western Spotted Skunk	Spilogale gracilis	.	x	x	x	x	x	Cand.	Spec. conc. (b)	x
Wild Horse	Equus caballus	.	x	.	.	.	x	.	.	.
Wild Pig	Sus scrofa	x	x	x	.	x	x	.	.	x
Yuma Myotis	Myotis yumanensis	.	x	.	x	x	x	.	.	.

Coastal Oak Woodland Amphibians

Species List

		Habitat Elements						Special Status		
Common Name	**Scientific Name**	**Acorns**	**Riparian**	**Logs**	**Snags**	**Burrow**	**Vernal**	**Federal status**	**State status**	**Harvest Species**
Arboreal Salamander	Aneides lugubris	.	x	x	x	x	.	.	.	.
Black Salamander	Aneides flavipunctatus	.	x	x	.	x	.	.	.	.
Black- Bellied Slender Salamander	Batrachoseps nigriventris	.	x	x	.	x	x	.	.	.
Bullfrog	Rana catesbeiana	.	x	.	.	.	x	.	.	x
California Newt	Taricha torosa	.	x	.	.	x	x	.	Spec. conc.	.
California Slender Salamander	Batrachoseps attenuatus	.	x	x	.	x	.	.	.	.
California Treefrog	Hyla cadaverina	.	x	.	.	x	.	.	.	.
Ensatina	Ensatina eschscholtzi	.	x	x	.	x	.	Cand.	Spec. conc.	.
Foothill Yellow- Legged Frog	Rana boylei	.	x	.	.	x	.	.	.	.
Long- Toed Salamander	Ambystoma macrodactylum	.	x	x	.	x	x	End.	End., prot.	.
Northwestern Salamander	Ambystoma gracile	.	x	x	.	.	x	.	.	.
Pacific Slender Salamander	Batrachoseps pacificus	.	x	x	.	x	x	Cand.	.	.
Pacific Treefrog	Hyla regilla	.	x	.	.	x	x	.	.	.
Red- Bellied Newt	Taricha rivularis	.	x	x	.	x	.	.	.	.
Red- Legged Frog	Rana aurora	.	x	.	.	x	x	Prop.	pec. conc., Prot	.
Rough- Skinned Newt	Taricha granulosa	.	x	x	.	x	.	.	.	.
Tehachapi Slender Salamender	Batrachoseps stebbinsi	.	x	x	.	x	.	Cand.	Threat Prot.	.
Tiger Salamander	Ambystoma tigrinum	.	x	x	.	x	x	Cand.	pec. conc., prot	.
Western Spadefoot	Scaphiopus hammondii	.	x	.	.	x	x	Cand.	pec. conc., Prot	.
Western Toad	Bufo boreas	.	x	x	.	x	x	.	.	.

Reptiles

Species List

		Habitat Elements						Special Status		
Common Name	**Scientific Name**	**Acorns**	**Riparian**	**sh, br**	**Snags**	**cs, talus**	**pool, w**	**Federal status**	**State status**	**larvest species**
Blunt-Nosed Leopard Lizard	Gambelia silus	.	x	.	.	x	.	End.	End., Prot. (c)	.
California Legless Lizard	Anniella pulchra	.	x	x	.	x	.	Cand.	pec. conc., Prot	.
California Mountain Kingsnake	Lampropeltis zonata	.	x	x	.	x	.	Cand.	pec. conc., Prot	.
California Whipsnake	Masticophis lateralis	.	x	x	.	x	.	Cand.	Threat Prot.	.
Coachwhip	Masticophis flagellum	.	x	.	.	x	.	Cand.	ec. conc., Prot.	.
Coast Horned Lizard	Phrynosoma coronatum	.	x	x	.	x	.	Cand.	pec. conc., Prot	.
Common Garter Snake	Thamnophis sirtalis	.	x	x	.	x	x	End., Cand.	End., Prot. (a)	.
Common Kingsnake	Lampropeltis getulus	.	x	x	.	x	.	.	.	.
Gilbert's Skink	Eumeces gilberti	.	x	x	.	x	.	.	.	.
Glossy Snake	Arizona elegans	.	.	.	.	x	.	.	.	.
Gopher Snake	Pituophis melanoleucus	.	x	x	.	x	.	Cand.	Spec. conc. (b)	.
Granite Night Lizard	Xantusia henshawi	.	.	.	.	x	.	Cand.	ec. conc., Prot.	.
Granite Spiny Lizard	Sceloporus orcutti	.	.	.	.	x	.	.	.	.
Long-Nosed Snake	Rhinocheilus lecontei	.	.	.	.	x	.	.	.	.
Lyre Snake	Trimorphodon biscutatus	.	x	.	.	x	.	.	.	.
Night Snake	Hypsiglena torquata	.	x	x	.	x	.	.	.	.
Northern Alligator Lizard	Gerrhonotus coeruleus	.	x	x	.	x	.	.	.	.
Orange-Throated Whiptail	Cnemidophorus hyperythrus	.	.	.	.	.	.	Cand.	pec. conc., Prot	.
Racer	Coluber constrictor	.	x	x	.	x	x	.	.	.
Red Diamond Rattlesnake	Crotalus ruber	.	x	.	.	x	.	Cand.	Spec. conc. (c)	.
Ringneck Snake	Diadophis punctatus	.	x	x	.	x	.	Cand.	.	.
Sharp-Tailed Snake	Contia tenuis	.	x	x	.	x	.	.	.	.
Side-Blotched Lizard	Uta stansburiana	.	x	x	.	x	.	.	.	.
Small-Scaled Lizard	Urosaurus microscutatus	.	.	.	.	x	.	.	.	.
Southern Alligator Lizard	Gerrhonotus multicarinatus	.	x	x	.	x	.	.	.	.
Speckled Rattlesnake	Crotalus mitchelli	.	x	.	.	x	.	.	.	.
Western Aquatic Garter Snake	Thamnophis couchi	.	x	x	.	x	x	.	.	.
Western Black-Headed Snake	Tantilla planiceps	.	x	x	.	x	.	.	.	.
Western Blind Snake	Leptotyphlops humilis	.	x	x	.	x	.	.	.	.
Western Fence Lizard	Sceloporus occidentalis	.	x	x	x	x	.	.	.	.
Western Patch-nosed Snake	Salvadora hexalepis	.	x	.	.	.	.	Cand.	Spec. conc.	.
Western Pond Turtle	Clemmys marmorata	.	x	x	.	.	x	Cand.	ec. conc., Prot.	.
Western Rattlesnake	Crotalus viridis	.	x	x	.	x	x	.	.	.
Western Skink	Eumeces skiltonianus	.	x	x	.	x	.	Cand.	Spec. conc. (c)	.

Western Terrestrial Garter Snake	Thamnophis elegans	.	x	.	.	x	x	.	.	.	
Western Whiptail	Cnemidophorus tigris	.	x	x	.	x	.	Cand.	.	.	

Special Status Codes

Cand. = candidate species
Spec. conc. = species of special concern
Prot. = protected species
End. = endangered species
Threat = threatened species
(a) = Species or subspecies with special status primarily associated with wetlands, marshes, and riparian areas
(b) = Species or subspecies with special status occurs on the Channel Islands
(c) = Species or subspecies with special status primarily associated with shrub, sandy, scrub, and desert habitats

Source: Univ. of California Oak Woodland Management

Landowners and managers using these lists can get a general idea of which species might be located on a particular property, and which important habitat elements areimportant to their use of an area. This list should not substitute for local-based surveys. Landowners may wish to consult with local CDF&G biologists, or consultingwildlife biologists for more detailed local surveys of their lands.

ATTACHMENT 6

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

September 22, 2016

FACSIMILE and HARD COPY

Joe Foster
Regional Government Relations Representative
Pacific Gas and Electric Company
1955 41st Avenue
Capitola, CA 95010

RE: Pacific Gas and Electric Company Tree Removal Project

Dear Mr. Foster:

Thank you for your continued participation in discussions with County staff regarding the Pacific Gas and Electric Company (PG&E) infrastructure tree removal project and the creation of an agreement to establish guidelines needed to ensure compliance with the California Environmental Quality Act (CEQA). As you know, on June 14, 2016, and subsequently on August 16, 2016, the Santa Cruz County Board of Supervisors directed County Counsel and department staff to collaboratively work with PG&E to develop pro-active measures to ensure public safety and environmental protections within those areas of the county affected by your proposed project.

While we support measures by PG&E to ensure infrastructure safety and recognize the need to maintain, inspect and operate its system, the County staff has additional concerns regarding public safety and potential environmental impacts that could occur from implementation of the project, which includes removal of trees within a 10-foot wide swath above subsurface natural gas pipelines in the Graham Hill Road area between Aptos and Watsonville, includes disturbance to sensitive protected habitat areas along Graham Hill Road, Santa Cruz Long Toed Salamander and California Red-legged Frog Habitat areas in Larkin Valley, public parks, and riparian and scenic corridors, and includes disturbance along a portion of the protected Coastal Zone. Many of the trees are located on private properties that contain human occupants. We have determined pursuant to Public Resources Code Section 15060 et. seq., and County of Santa Cruz Code Chapter 16.01, the work constitutes a project subject to further review under CEQA and an initial study must therefore be prepared.

A comprehensive initial study that assesses the combined scope and effect of trees removed from multiple publicly owned or county right of way locations in addition to multiple trees removed on private properties that contain residential, accessory and other structures will determine if the proposed project may have a significant effect on the environment, whether such effects can be mitigated, and aid the lead agency in determining what type of environmental document to prepare.