PG&E is working together with cities, counties and communities across our service area to review the area above and around the natural gas transmission pipelines for items that could pose a safety concern. We are providing the following information to address questions PG&E received from Lafayette community members regarding this gas safety work. For more information, please contact PG&E local outreach specialist Whitney Floratos at 1-925-494-8962 or by email at whitney.floratos@pge.com.

PG&E’s Gas Safety Work in Lafayette

Nothing is more important to us than the safety of our customers and communities. 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. If any issues are identified as a risk to public safety, we take steps right away to address them.

PG&E is also working with the Lafayette community to look at the area above and around the natural gas transmission pipeline for items like trees, brush and structures that could delay safety crews from accessing the pipeline in an emergency or for critical maintenance work. When located too close to the pipeline, tree roots can also cause damage to the protective coating of the pipe, exposing it to corrosion and leaks. By working together to make sure these items are located at a safe distance, we can help ensure the pipelines serving the Lafayette community continue to provide safe and reliable gas service for years to come.

Given the community’s interest, PG&E prepared a detailed report with information on the pipeline characteristics, safety and maintenance history, emergency planning efforts, and planned pipeline safety work within the City of Lafayette. The report is available on the City’s website at: http://www.lovelafayette.org/home/showdocument?id=4086.

Questions and Answers

Community Pipeline Safety Initiative

Why is this work necessary? How do trees pose a safety risk?
The Community Pipeline Safety Initiative is part of proactive safety efforts that we have put in place over the past several years to improve the safety of the natural gas system serving communities like yours. When trees, large brush and other items are located too close to the gas transmission pipeline, they can delay critical access by safety crews in an emergency or for important maintenance work, and can cause potential damage to the pipeline. That is why we are working collaboratively with the City and the local community on plans to ensure trees are located at a safe distance from the pipeline.

What type of data or measures are taken into consideration for this safety work?
This important gas safety program is based on guidance from state and federal regulators, pipeline safety organizations, industry associations, and other pipeline operators regarding safe uses near natural gas transmission pipelines. These entities all agree on the importance of keeping the area from a minimum of 10 feet and up to 25 feet free of vegetation and other items that could block critical access or damage the pipe. More information can be found in a publicly available report from the US Department of Transportation’s Pipelines and Informed Planning Alliance (PIPA) at http://www.ingaa.org/file.aspx?id=11683.

To make sure we are only replacing those trees that pose a safety concern, our team of gas safety experts and certified arborists conducted a review of trees located up to 14 feet from the gas
transmission pipelines that run through the City of Lafayette. The review looked at a number of factors, including tree species and size at full maturity, distance from the pipe, and the depth of the pipeline in the area (see Attachment A for more information). For trees on private property, we are particularly concerned with distance from the pipe given the unique access challenges in backyards. The results of the review helped determine which trees can remain in place with ongoing monitoring, and which trees need to be replaced for safety reasons. For any tree that poses a safety concern and needs to be removed, we offer the property owner a replacement tree to be planted at a safe distance from the pipeline.

**Why can't PG&E move the pipeline instead of removing vegetation? What is the long-term plan – will these pipes need to be replaced eventually? If that happens, won't these tree removals be unnecessary?**

The lines have been tested and evaluated as operating safely in their current location. Building a new pipeline would involve the removal of vegetation, in addition to a series of other negative environmental and community impacts. With regular maintenance and inspection, there is no set lifespan or limit to how long a pipeline may safely remain in operation. The U.S. Department of Transportation’s Pipeline & Hazardous Materials Safety Administration, for example, states that the life of a pipeline is virtually endless if it is constructed and maintained correctly. That’s one of the reasons why this gas safety program is so important. It’s about working together to be sure we can access the gas transmission line for critical maintenance work or in an emergency to keep the pipelines and the community safe.

**What evidence do you have that roots can damage the pipeline?**
PG&E and other pipeline operators across the country have seen examples of tree roots causing damage to the external coating of natural gas transmission pipelines. When the coating is damaged, it can expose the pipe to corrosion and leaks. There is also the potential for high winds or an earthquake to cause the tree to uproot or create other movement that could damage the pipeline. Sample photos of trees roots interacting with pipes can be found in the PIPA report referenced above (See Appendix C, pages 20-25) as well as in Attachment B. Below are instances where PG&E has documented tree roots causing damage to gas transmission pipelines in our system.

<table>
<thead>
<tr>
<th>Line</th>
<th>Location</th>
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</tr>
</thead>
<tbody>
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**Pipeline Safety**

**What types of inspections are being done on the pipelines in Lafayette? How are pipe integrity issues being addressed?**
PG&E has a comprehensive inspection and monitoring program to ensure the safety of its natural gas transmission pipeline system. This includes regularly conducting patrols, leak surveys and cathodic (corrosion) protection inspections for its natural gas transmission pipelines. If any issues are identified as a risk to public safety, we take steps right away to address them. In doing this safety
work, we have also identified items like trees, brush and structures that could impede access for first responders and PG&E safety crews in an emergency or if critical maintenance work is needed. When located too close to the pipeline, tree roots can also cause damage to the protective coating of the pipe, exposing it to corrosion and leaks. That is why we are proactively working together with the Lafayette community to help prevent any safety incidents by ensuring trees and other items are located at a safe distance from the pipe.

What is being done about early leak detection?
It is important that the pipeline area is clear of trees, brush and other items so PG&E crews can immediately address any issues that may be identified during our maintenance work. For example, if a potential leak is detected during a leak survey, it can be much more difficult and take more time to pinpoint and fix the leak if a tree is above the gas pipeline in that area. This proactive safety work will also help prevent potential damage to the protective coating of the pipe, which could lead to corrosion or leaks.

What do first responders say about your pipeline safety work?
PG&E works closely with first responders, including fire, police, and community emergency response teams (CERT), to conduct trainings, share information on gas pipelines, and develop gas emergency response plans to protect community safety. For more information on what local community members, including first responders, have said about PG&E's community gas safety efforts, please refer to the attached newsletter (Attachment C) that was sent to customers in Contra Costa County that live near a gas transmission line.

Can PG&E install automatic shut-off valves as an alternative to this safety work?
This work is all about keeping our customers safe and preventing safety incidents from occurring in the first place. Multiple layers of protection are essential to keeping the gas transmission pipelines and the people who live near them safe. Shut-off valves are an important part of our emergency response efforts, but they are a reactive response. When it comes to safety, we also need to be proactive. Every emergency situation is different, and working together with local first responders, PG&E crews must assess each individual situation and make specific decisions about how best to make the situation safe and protect our customers. We can’t foresee what first responders – whether it’s our safety crews, fire, police, or an ambulance – will need if something goes wrong, which is why it is critical that the area above the pipeline is clear for access.

Proposed Safety Work in Lafayette

Why has the number of trees proposed for removal in Lafayette changed?
We initially identified more than 1,000 trees near the gas transmission pipeline within the City of Lafayette that could pose a potential safety concern. At that time, we were using a more uniform approach for the program, but we listened to our customers and made changes to the program to better address the concerns of our communities. One of the most significant changes we made was committed to re-review every tree near the pipeline – on both public and private property – to ensure we are only replacing those trees that pose a threat to emergency access or public safety.

In Lafayette, we conducted an in-depth review of every tree located near the gas transmission pipeline in 2015. During summer/fall 2017, we performed an additional review of the area above the pipeline along the Lafayette-Moraga Regional Trail, the Lafayette Reservoir Rim Trail and other public areas in the City. Based on the combined results of these reviews, the majority of the trees in Lafayette are located far enough away from the pipeline that they can remain in place with regular monitoring. There are 113 trees along the trails and city streets that pose a safety concern and do need to be replaced at a safe distance. We continue to work with local property owners to review and determine a path forward for trees on private residential property that have been identified as posing a safety concern.
When is this work expected to take place?
We are continuing to work with the City, the agencies and the local community on plans for this work to be sure it is done in a way that balances the need for public safety with preserving the beauty and character of the local community. At this point, we anticipate beginning work sometime in spring/summer 2018 and will keep the community informed once a schedule is confirmed.

Commitment to the Environment

What environmental review is completed for this work?
PG&E relies on a team of environmental professionals to help minimize impacts on vegetation, trees and wildlife habitat. As part of the Community Pipeline Safety Initiative, every project is individually reviewed by a team made up of biology, cultural and environmental field specialists prior to any work taking place. The review involves identifying any critical habitat, endangered species, native plants or cultural resources that need to be protected during work. Our review includes field visits (as needed), as well as a search and analysis of aerial and topographic imagery, U.S. Fish and Wildlife Service critical habitat designations and its Information Planning and Conservation planning tool (IPaC), the California Natural Diversity Database (CNDDB), the California Native Plant Society rare plant database, and various cultural resources inventory databases.

We are especially mindful of the nesting bird season from mid-February through the end of August and, sometimes, into September. During this time, the team performs bird surveys for all projects prior to any work taking place. The survey involves looking for active nests up to a minimum of 250 feet from the project site, depending on the specific habitat and bird species. If an active nest is identified in a tree that needs to be replaced, PG&E postpones work until the young birds are old enough to fly away and the nest is considered inactive. We will also modify or postpone work if an active nest is found in the surrounding area.
Community Pipeline Safety Initiative
Tree-by-Tree Review

Pacific Gas and Electric Company’s (PG&E) top priority is the safety of our customers and the communities we live in and serve. As part of this commitment to safety, we are checking the area above and around our natural gas transmission pipelines to help ensure safety crews are able to get to the pipe in case of an emergency or for critical maintenance work. We are working closely with the City of Lafayette, East Bay Regional Park District (EBRPD), East Bay Municipal Utility District (EBMUD), and local residents to address items like trees and structures that are located too close to the gas transmission pipeline and pose a safety concern.

Tree-By-Tree Review Criteria
We understand how important trees are to the community and environment. To ensure we are only replacing trees that pose an emergency access or safety concern, we conduct a review of all trees up to 14 feet of the gas transmission pipeline to determine which trees can remain in place with ongoing monitoring and which need to be replaced for safety reasons. This review is completed by a team of safety and pipeline integrity professionals, engineers, arborists, and environmental experts and involves analyzing the following factors:

<table>
<thead>
<tr>
<th>Tree Characteristics</th>
<th>Pipeline Information</th>
<th>Site Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Tree species and size at full maturity</td>
<td>• Pipeline depth</td>
<td>• Ability to access pipeline in an emergency</td>
</tr>
<tr>
<td>• Distance from tree to pipeline</td>
<td>• Pipeline installation date</td>
<td>• Ability to access pipeline for critical maintenance work and patrols</td>
</tr>
<tr>
<td>• Potential for root interaction with pipeline</td>
<td>• Pipeline coating type</td>
<td>• Lightning and wind exposure</td>
</tr>
<tr>
<td>• Tree hazard</td>
<td>• Pipeline size (diameter)</td>
<td>• Seismic activity and soil instability</td>
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As part of this review, PG&E identified trees within the City of Lafayette, including along the Lafayette-Moraga Regional Trail and the Rim Trail at the Lafayette Reservoir, that need to be replaced for safety reasons. PG&E is working with the City, agencies and the local community to share what we know about pipeline safety risks and, together, develop plans that preserve the unique character of the community while protecting public safety. This includes planting new trees at a safe distance from the pipeline, restoring the area.

For More Information
If you have any questions about this planned gas safety work, please contact Whitney Floratos at 1-925-494-8962 or by email at whitney.floratos@pge.com. For more information about PG&E’s pipeline safety programs, please visit our website at pge.com/GasSafety.

Be Safe. Dig Safe. Damage from excavation is the most common cause of pipeline accidents. Before you begin any landscaping work, always call 811 at least two business days in advance. With one free call to 811, PG&E will send a crew to mark our underground gas and electric facilities before you begin work, helping you plan a safe project.
Below are examples of roots causing damage to natural gas transmission pipeline when trees are located too close to the pipeline.

San Leandro, California - October 2012
Tree Root Damage to PG&E Pipelines

Below are instances where PG&E has documented tree roots causing damage to gas transmission pipelines:

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At PG&E, we are committed to the safety of our customers and the communities where they live and work. In Contra Costa County, part of that commitment to safety includes making sure the area above a natural gas transmission line is clear of structures or trees that could block access for firefighters and safety crews in an emergency or natural disaster.

PG&E’s Community Pipeline Safety Initiative works collaboratively with residents and community leaders to identify and replace any trees or structures located above the natural gas line to help ensure first responders and utility crews can quickly get to the pipeline and make it safe in an emergency.

Right Tree, Right Place: Proper Tree and Site Selection

The benefits of planting trees are abundant: they keep homes cool by providing shade, enhance property values and clean the air. If the right tree is not planted in the right place, the need to keep the area above the pipeline clear is similar to that of the area in front of a fire hydrant. We all know and understand the importance of never parking in the red zone in front of fire hydrants. While fire trucks don’t need to regularly access the hydrant, when they do, they need immediate, unblocked access.

CONTINUED ON PAGE 2 →
Contra Costa County Leaders Speak Out on Safety

“In order to respond effectively to pipeline emergencies we need to be able to access them. PG&E’s Community Pipeline Safety Initiative assures that emergency responders will always be able to get to the emergency when needed.”

—JEFF CARMAN
PRESIDENT & CEO, PITTSBURG CHAMBER OF COMMERCE

“PG&E has always supported Pittsburg’s desire for economic prosperity and growth. Their upgrades and ongoing maintenance of gas pipelines in our community will provide continued safe and reliable energy for our region for years to come.”

—MONICA COUTURE
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“The gas safety work being performed by PG&E in our community is an important component of maintaining a strong local economy. We appreciate all they are doing to ensure the safety and reliability of the gas system serving our area.”

—STEVE VAN DORN
PRESIDENT & CEO, PLEASANT HILL CHAMBER OF COMMERCE

RIGHT TREE, RIGHT PLACE ... CONTINUED FROM PAGE 1

...and reliability of the gas system serving our area. It is so important. The safety of our customers, their families and our employees will always be our number one priority.

For more information on PG&E’s Community Pipeline Safety Initiative, you can visit pge.com/GasSafety.

WORKING TO IMPROVE EMERGENCY ACCESS CONTINUED FROM PAGE 1

Similarly, during a natural disaster or other emergency, trees or structures located over or around an underground pipe can delay access by emergency response crews. Pipeline safety experts and local first responders agree that keeping the area around gas pipelines clear and safe will speed up response times in the event of a gas leak. In an emergency, every second counts.

In situations when a tree or structure needs to be replaced for safety reasons, the local PG&E team will work closely with customers to replace the item.

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Tips to Ensure the Right Tree Is Planted in the Right Place

When planting near gas or electric lines, only use the appropriate plants. You can learn more about planting the right tree in the right place by visiting selectree.calpoly.edu.

• Call 8-1-1 at least two days before planting trees or landscaping, to have underground power lines and other utilities marked.

• Keep all trees, people and equipment away from electric power lines, including the lines from the pole to your home.

• If hiring a specialist to assist with tree care—whether that be trimming, removal or planting—do not have them work on trees within 10 feet of high voltage lines. Only PG&E’s OSHA certified contractors can work on trees within 10 feet of high voltage lines.

• You can email RightTreeRightPlace@pge.com for a free copy of PG&E’s A Selection and Planting Guide to Small Trees Near Distribution Lines.

Automated Gas Safety Valves Speed Emergency Response to Gas Leaks

Valve automation is one more way that PG&E is maintaining the gas system in Contra Costa County. The valve automation program improves PG&E’s ability to quickly shut off the flow of gas in the event of a significant change in pressure.

Valves can be opened or closed from PG&E’s newly designed Gas Control Center, instead of requiring an employee to travel to the site to manually open or close the valve. Valves allow us to stop the flow of gas immediately to reduce damage during an emergency and allow community firefighters and police to respond more quickly.

Your awareness and actions can be critical to the safety of your home and community. Please report any signs of a gas leak immediately by calling 1-800-743-5000 and use these simple steps below to help detect a possible gas leak.

SIGHT

Be aware of dirt spraying in the air, continual bubbling in a pond or creek and dead or dying vegetation in an otherwise moist area.

SMELL

We add a distinctive, sulfur-like rotten egg odor to natural gas, so you can detect even small amounts.

SOUNDS

Pay attention to hissing, whistling or roaring sounds coming from underground or from a gas appliance.
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Right Tree, Right Place ...

Continued from page 1

place, however, it can cause public safety issues and power outages. In fact, more than 90 percent of tree-caused outages come from healthy trees and branches that fall or grow into power lines.

“Trees are a vital part of California’s natural beauty, and PG&E appreciates the many benefits they offer to communities,” said Patrick Hogan, vice president of asset management, PG&E. “In addition to beautifying property, cooking homes and clearing the air, the right tree—planted in the right place—can help improve public safety by keeping areas above pipelines clear for first responders and our crews, reducing the likelihood that branches or limbs will contact an energized power line.”

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In This Issue

- Learn steps to help detect a possible gas leak
- Right tree, right place
- Local leaders speak out on safety

Working to Improve Emergency Access

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Continued on Page 3 →