

Attachment E

Petition to Mayor and Phoenix City Council
For Five Actions, December 18, 2019

Mayor Kate Gallego;
Vice Mayor Betty Guardado;
Council Member Thelda Williams;
Council Member Jim Waring;
Council Member Debra Stark;
Council Member Laura Pastor;
Council Member Sal DiCiccio;
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CITY CLERK DEPT.

**Subject: Petition to the Mayor and City Council of the City of Phoenix (COP)
For Five Actions Regarding the COP Drought Pipeline Project**

Honorable Mayor Gallego and City Council Members:

Pursuant to Chapter 4, Section 22 of the Phoenix City Charter, this petition is submitted by the undersigned, in their individual capacities as citizens of Phoenix. They also submit this petition on behalf of residents and homeowners in and around the Biltmore Highlands, Madison Heights Elementary School, and Granada Park, regarding the COP plan to install a 66-inch water transmission main and a 48-inch water transmission main through the Phoenix Mountain Preserve and nearby neighborhoods, starting at the 24th Street Water Treatment Plant (WTP) and continuing to 32nd Street and Bell Road. This plan is also, at times, referred to as the “Drought Pipeline Project.”

The COP Water Services Department (WSD) Drought Pipeline Project will cause major traffic disruptions, create health and safety risks to neighborhoods and schools, potentially damage home structures, reduce home values, and forever scar the Phoenix Mountain Preserve, all at a high and possibly unnecessary expense to City taxpayers.

In order to justify construction of this pipeline in residential neighborhoods and the Phoenix Mountain Preserve, the WSD relied on an inadequate alignment study that did not include or adequately evaluate criteria such as community input, community health and safety, structural damage to nearby buildings and infrastructure, costs to excavate bed rock, and environmental impacts. Furthermore, the alignment study did not follow the City design codes for water and wastewater transmission main lines (COP, 2017). Additionally, the project design is likely underestimated at a cost of \$300 million to the public.

Our Petition. We respectfully request that the City Council fulfill its duty to protect the voters, taxpayers and residents of this City from unacceptable costs and health and safety risks associated with the so-called “Drought Pipeline Project.” To that end, we specifically request that the City Council:

1. Halt all activities related to the development and construction of the currently planned 48-inch and 66-inch water transmission pipelines until a new, adequate alignment study is conducted.
2. Allow for meaningful citizen input into the design of the pipeline as outlined in COP WSD values to its citizens (COP, 2019)

3. Meet with land owners and organizations that control right-of-way (ROW) easements (e.g., SRP, ADOT, BLM, APS) that could be used for the pipelines routes that meet the city engineering code.
4. Conduct a new, adequate alignment study. As part of the alignment study, the WSD should develop a decision matrix that fairly analyzes 3 or more alignments that meet City engineering standards, and health, safety, and engineering concerns that are typically included in an alignment study for a project of this size.
5. Place the future 48-inch and 66-inch water transmission main pipelines alignments on the general city council agenda so that all council members vote on the alignment before the project moves forward.

Construction of the Water Pipeline Is Not an Emergency, Nor Is It Necessary to Address Drought Conditions or Central Arizona Project (CAP) Water Restrictions

In order to forego typical City project review and approval processes, the City Council and WSD have deemed the proposed pipeline project an emergency and necessary to address imminent drought and potential water restrictions. This is not true. With the exception of a need to construct additional wells in the north Phoenix area to facilitate recovery of stored CAP water, the COP is well-positioned to address any shortages to City water supplies that might result from future drought and reduced water supplies on the Colorado River or the Salt River system. Because of proactive drought planning already put in place by the City, the north Phoenix area is unlikely to be significantly impacted by drought. Furthermore, CAP allocations for municipal purposes (e.g., COP) share the highest priority for water along with Indian water rights. As a result, the COP CAP water supplies will be some of the last to be reduced in times of shortage (AWBA, 2019a).

Additionally, if CAP water supplies are reduced, COP has water supplies previously stored underground that it can use to replace CAP water (AWBA, 2019a and b). It has been estimated that the city has stored over 290,000 acre-feet of its CAP water underground in the Phoenix area (ADWR, 2019) and an additional 43,000 acre-feet stored in the Tucson area (UA, 2015). If the City installed adequate well infrastructure in the north Phoenix area, it could utilize stored water supplies to provide water to the north Phoenix area without the expense and destruction of the proposed pipeline project. Furthermore, the COP is not yet fully utilizing its CAP water. In 2018, the COP stored “about 58,000 acre-feet, or just under one-third of its annual CAP allocation, underground (Whitman, 2018).” These 58,000 acre-feet represent a CAP water reduction that COP could receive without any impact to City water customers or imposition of water use restrictions. While it is admirable for the COP to continue its forward thinking and planning for water supply and flexibility in delivery, it is inappropriate for the City Council to impose a \$300 million infrastructure project on City taxpayers and allow destruction of the Phoenix Mountain Preserve before requiring the WSD to adequately study the need for, and the best alignment to meet engineering standards for, a “Drought Pipeline Project” based on the assertion of an “emergency.”

The Current Pipeline Alignment Study is Flawed

The pipeline alignment study prepared for COP by Project Engineering Consultants, Ltd. (May 2018) appears generic and materially deficient in several regards. In particular, the study veers away from city values and smart engineering practices toward the lowest (perhaps mis-calculated) direct cost.

1. The standard of the industry for a project of this size is to analyze three feasible alignments with significantly different variations. This study only evaluated two alternatives (PEC, 2018)
2. The COP design manual (2017) states that “The City has made a commitment to early citizen notification and involvement. The goal of identifying neighborhood concerns has a high priority to include community input.” Residents who live in and around Granada Park, Madison Heights Elementary School, and Biltmore Highlands neighborhood were only informed of the subject project in a notification meeting October 24, 2019. No formal method of community input has been allowed. Community input should be allowed and incorporated into an alignment study.
3. There are significant differences in the two alignments studied that are not incorporated into the decision matrix. Specifically, Alternative 1 (not selected) would utilize 4-lane main city streets with through traffic. Alternative 2 (selected) would utilize 2-lane residential streets, our protected mountain preserve, and construction of a tunnel.
 - a. The decision matrix is excessively weighted on cost. Factors related to community safety, elementary schools, environmental sustainability, or community input were **not** included.
 - b. The awarding of points in the matrix seems arbitrary and biased. For example, Alignment 2 is 16% shorter but assigned 10 times as many points for this. Similarly, Alignment 2 costs are 12% less but was assigned 2 times as many points for this. Adjustment of these two items alone to reflect the proportionate differences would result in a reversal of the preferred alignment.
 - c. Unlike Alignment 1 streets, the streets in and around Granada Park, Madison Heights Elementary School, and Biltmore Highlands neighborhood have limited ingress and egress via 20th Street and 22nd Street. Hundreds of properties will be negatively impacted by the choking of roads from construction, not just those immediately adjacent to the construction. The study only considered homes adjacent to the pathway.
 - d. Tunnel construction logistics, duration, and public safety are insufficiently factored into the analysis. Construction along main roads as envisioned in Alternative 1, only detrimentally impact businesses and homes when the construction is immediately adjacent to their property; construction equipment will move on down the road. However, tunnel construction will result in heavy equipment and dump trucks continually flowing in and out of impacted neighborhoods for months or years as the tunnel is being constructed.
4. The standard of the industry for a project of this size is to evaluate any potential impacts to, and to protect, the environment and cultural, archaeological, and historical property. It is unclear if the current alignment study for this project adequately did so. (PEC, 2018; COP, 2017)
5. Additionally, alignment alternatives for a water transmission main pipeline project of this size should necessarily be evaluated for criteria such as worker and community safety, and structural impacts to nearby structures and infrastructure. The risks to community safety

should include dust, noise, shaking, and emergency vehicle response times. Silica dust is a common hazard on construction sites; it can be released from drilling, blasting, tunneling, hauling, and earth moving, and can cause serious and irreversible lung disease and cancer (Work Safe BC, 2019)

6. A detailed geotechnical report was not prepared for the pipeline alignment study. Additional alignment costs are given for Alternative 2 bedrock excavation at an estimate of \$100 per foot (PEC, 2018). This seems unreasonably low and higher excavation costs need to be included for excavation of bedrock. The study states “cemented alluvial material, bedrock and cobbles/boulders and other dense underlying material will necessitate more aggressive excavation techniques up to and possibly including blasting.” It appears blasting may be needed for Alternative 2 and that those costs and risks are insufficiently considered in the analysis.

The Costs and Impacts of the Pipeline Project Have Not Been Adequately Studied

We believe that the proposed pipeline project will be one of the most expensive infrastructure projects in the City’s history. Yet, the WSD has engaged in little more than a desktop study of the costs and potential impacts of the project. At an estimated cost of approximately \$300 million, the City Council owes it to the taxpayers of this City to require an in-depth study of the costs and impacts of the project, including a meaningful study of potential alternative alignments and mitigation measures that minimize impacts to neighborhoods and the Phoenix Mountain Preserve.

The study (PEC, 2018) failed to analyze obvious potential impacts from the project important to the City Council’s informed consideration. For example, the study expressly admits that the City’s contractors did not study potential traffic impacts to local neighborhoods affected by the proposed alignment, notwithstanding the fact that the proposed alignment abuts an elementary school with busy morning and afternoon traffic and would severely restrict the only access point to 335 homes north of Glendale Avenue (Sickafoose, 2019).

The study further failed to consider health and safety impacts to Phoenix neighborhoods, including potential delayed response time for emergency vehicles (police and fire) and their access for impacted neighborhoods, and potential health impacts from the project (e.g., dust and noise pollution; mercury in dust (ADMMR, 2003). In addition, the study lacks any analysis of the structural risks to buildings and infrastructure in the area due to the geology of the neighborhoods. Many houses, swimming pools, and utilities lie only a few feet above bedrock, and the City should anticipate accompanying litigation and compensation costs that will be incurred for damage to homes adjacent to construction areas, particularly if blasting is required.

Additionally, the COP design manual (2017) states that the “WSD requires safe and quick access to all City water and sewer mains at all times in order to repair main breaks, install taps, and perform preventive maintenance.” The current design in narrow residential streets and the Phoenix Mountain Preserve will not allow for easy access without creating an additional disturbance to the preserve and/or limiting access to residences that have only one access road. The current alignment study did not take these factors into consideration.

All of these issues need to be more adequately analyzed before the City Council authorizes the WSD to proceed with this alignment. If these impacts are properly taken into consideration, the true costs of the project will likely exceed the \$300 million estimate provided by the WSD's contractors.

The Currently Proposed Alignment does not meet COP Engineering Standards for a Water Main Transmission Pipeline

City water transmission main pipelines that are 48 inches and 66 inches in diameter should utilize collector streets or arterial streets with a minimum easement width of 80 feet and not local or minor residential collector streets with widths less than 80 feet. Minimum easement widths for water mains greater than 30 inches are specified as 80 feet in the City Design Manual (COP, 2017). Construction of a 66-inch and a 48-inch water main pipeline is not appropriate in residential collector streets like those proposed for this project. Most streets in the proposed pipeline path have a width of 38 feet with easements of 6 feet either side (Smith, 2019). A street of this size (38 feet wide), according to the City design manual is suitable only for a 12-inch diameter water main pipeline (COP, 2017)

The WSD Design manual states that "City Code chapters 28 and 37 (for water and sewer) cannot be waived and only the WSD's Representative has the authority to interpret the Code (COP, 2017)." Use of this waiver clause for this project because of "emergency" or "cost savings" reasons seems inappropriate, unethical, and perhaps negligent.

Why do we oppose the current alignment? The risks to a residential area are profound compared to the risks to a major street as is typically used for a main water transmission pipeline of any size. We, the undersigned, and our neighbors do not want you to simply divert this pipeline to another residential area. We ask that you reconsider your selection criteria and modify the pathway to a safe and secure location with minimal risk to the health and safety of residents and the environment.

How can we design it better? Three rights-of-way (ROWs) are located within 600 feet of the entire pipeline path. These ROWs were dismissed because they would require complex discussions with SRP, BLM, and/or ADOT. APS also has utility areas near the proposed pipeline path. We know it is possible to obtain non-revocable permits from these entities if properly pursued, possibly for the entire pipeline pathway. The pipelines need not go in any street. If the pipeline must go in a street, the City should evaluate the 16th Street or other collector, arterial, or freeways in the area.

There are other costs to a community besides the dollar cost of a water bill. There are costs associated with human health and safety, risks to health from dust, noise, heavy traffic, and vibration stress on old homes from heavy equipment. These risks to health and safety and homes are not as profound on a major street as they are on a residential road. (An example is that Lincoln Road has been under construction for a year. It slows the traffic but it never stops and people can take alternate routes. A small neighborhood has no alternative route.)

The number of people impacted directly by Alternative 2 may be less but the impacts on them are more profound. And people whose only egress and ingress to their home is 22nd Street (people who live in the approximately 335 residences) have not been counted.

There are clearly alternatives to the proposed pipeline available to address water supply and drought concerns in the north Phoenix area. Before allowing further taxpayer dollars to be mis-spent on the proposed pipeline project, the City Council should take action as requested in this petition.

Sincerely,



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cc: Arizona Republic
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