The City of SAN DIEGO

Comment and Response Log from the DDW Public Hearings on the North City Pure Water Project Title 22 Engineering Report

Engineering and Design

	Comment or Question	Response
1	What side of Town Center Drive will the pipeline be on?	The alignment on Town Center Drive is located on the west side in the southbound lanes.
2	Is any tree removal required?	Tree removal is not required.
3	Where will the vents on the pipeline be located?	There are 14 vent locations along the alignment for addresses, see page 9 of https://www.sandiego.gov/sites/default/files/pwsd_morena_pump_station_and_pipelines_qa_-_5-30-18.pdf.
4	With climate change can the charcoal filters handle the odor?	Climate change will not have an impact on the carbon filter performance.
5	What is plan B for odor if the filters aren't enough?	High purity oxygen will be injected into the wastewater force main prior to transport to prevent a septic condition from developing within the pipeline. Odorous conditions are attributable to septic conditions. In addition to the High purity oxygen injection, there will be carbon filters installed at all air vacuum valves along the pipeline alignment. The high purity oxygen and carbon filters are effective measures to eliminate potential noxious odors.
6	Please make sure to implement real-time water (minimum frequency of once/minute update rate) quality monitoring at the treatment plant output, midway along the Miramar pipeline, and at the output of the pipeline / input to the Lake Miramar treatment facility / reservoir. In addition to real-time water quality monitoring, automated shut-down controls must be implemented to stop the flow of treated water if any of the monitoring stations indicates below-standard quality water in the pipeline system. System restart should be done manually (not automatically) after diagnosis and correction of the reason for the shut down. The North City Water Reclamation Plant should have the ability to reverse the flow of water in the pipeline to the Miramar Plant/Reservoir to "suck back" any below-standard quality water that may have entered the pipeline instead of requiring the movement of known-bad water into the Miramar Plant/Reservoir.	The Monitoring and Reporting Program for the project is provided in Section 15 of the Title 22 Engineering Report. Process performance parameters that are continuously monitored (updated every 15 seconds) are included in Slide 38 of the Hearing presentation. Slides 60 through 62 illustrate the ability to divert flow and disconnect Miramar Reservoir from the Miramar Water Treatment Plant as a resilience (failure response) measure. The report and the Hearing slides can be found at www.purewatersd/reports.org.

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7	Why can't more reservoirs be built?	Building additional reservoir capacity does not increase the amount of water supply unless there is a source of water to store in the reservoir. San Diego already has an extensive reservoir system that captures and impounds nearly all of the available local runoff. The region also has substantial reservoir capacity used for storing imported water. Much of the reservoir capacity in the San Diego region is filled with imported water. There are many risks, largely depending on imported sources, including availability (affected by drought and inter-agency agreements) and long-term interruption if the aqueducts are damaged from natural events such as earthquakes. The Pure Water Project will replace some of the imported water with a reliable, locally controlled source of water. Siting and constructing new reservoirs is expensive and difficult. In the San Diego region, there few good reservoir sites remaining. Environmental regulations severely limit the ability to construct new reservoirs, and it is a very sensitive topic for natural resource agencies and property owners. Building new reservoir capacity is extremely expensive. In spite of all this, the San Diego County Water Authority was able to raise San Vicente Dam in 2014, increasing the reservoir capacity by almost three-fold. The San Diego region now has 750,000 acre feet of reservoir storage capacity, with about 1/3 in San Vicente Reservoir. The region has a surplus of reservoir capacity.
8	What are the plans for dealing with the waste produced?	The wastes produced from the Pure Water Project will be conveyed to the Point Loma Wastewater Treatment Plant for processing and subsequent ocean discharge.
9	Will a baseline of tests be performed on the reservoir, and will periodic testing be performed at the reservoir?	The Surface Water Augmentation regulations require a baseline of 2 years of water quality monitoring prior to releasing Pure Water to the reservoir. The Monitoring and Reporting Program is summarized in Section 15 of the Title 22 Engineering Report.
10	What securities are in place to avoid tampering with the water supply? Is the Project earthquake safe?	The City's water system and wastewater system have security features in place to protect against tampering or malicious acts. The security systems include physical barriers [e.g. fences], lighting, electronic sensors, and security patrols. Sections 5.7 and 6.7 of the North City Project Environmental Impact Report discuss faulting and earthquake risks, and how the project has been designed to withstand seismic events. The Final Report can be found at www.purewatesd.org/reports.
11	What level of purity is the water that will pass through our neighborhoods?	The purified water that will be released into Miramar Reservoir is very high quality and will be treated again at the Miramar Water Treatment Plant prior to distribution to the customers in the service area. The water will meet all Federal and State Drinking Water requirements, as well as Notification Levels established by the Division of Drinking Water. The purified water quality is discussed in detail in Section 9 of the Title 22 Engineering Report.
12	In Clairemont, there are three intersections with active or inactive gas stations, one of which is near a high school and middle school. Are hazmat procedures in place during excavation to install new underground pipes to address handling contaminated soil caused by underground seepage from leaky storage tanks?	Procedures to deal with any hazardous materials encountered during construction is well documented in the City's Standard Specifications for Public Works Construction. These requirements are referenced in the specifications for all construction contracts, and the City's inspectors will adhere to these specifications during construction.
13	During the Title 22 Public Hearing, slide 49 called "Resevoir Provides at Least 60 Days Retention" along with the transcript notation shows input at the top of the reservoir and output at the bottom. However, another slide shows the Pure Water input at the bottom of the reservoir, and I'm told that the outflow is from the top of the reservoir. Which slide is correct?	Slide 49 is a general schematic to demonstrate how the reservoir retains water. The Pure Water will be released into the reservoir through 94 outlets in a "crows foot" pipeline arrangement along the bottom of the reservoir in the eastern segment (furthest from the outlet tower). Water can be withdrawn from the reservoir from four ports at varying depths along an outlet tower in the western segment of the reservoir, but often is withdrawn from ports closer to the surface. Withdrawal is determined by the water layer that is of the best quality to treat (for example, limiting algae).

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14	Why is the City not reclaiming water for reuse applications in place of using it for freshwater supplies? Reuse water can be reclaimed for 1/3 the processing cost, and pumping cost would be the same since the City pumps the water to the height of Miramar Reservoir and the water will flow downhill to Lake Hodges (a purple pipe reservoir).	The City of San Diego is reclaiming water for non-potable reuse applications, such as irrigation and industrial uses. Currently, an annual average of 6 to 7 mgd is used for non-potable uses. When the first phase of Pure Water becomes operational, the City has reserved up to 12 mgd through inter-agency agreements for non-potable uses. Unfortunately, these uses vary with seasonal climate patterns, cannot fully use the available water resource on a year-round basis, and expanding the non-potable network to reach further throughout the country is very costly both in terms of pipeline construction and pumping. Agencies in Los Angeles and Orange County treat their recycled water to a high level, where it is injected into the ground. It can be used as a barrier to salt water intrusion and becomes part of the groundwater supply. The groundwater supply is used for many purposes in Los Angeles and Orange County, including drinking. Several agencies in the Los Angeles Basin and at the Orange County Water District produce water that is put into a drinking water supply. Hodges Reservoir is a primary drinking source water. It impounds local runoff and stores imported water, and sends the water to a drinking water treatment plant. Hodges Reservoir is not used to store purple pipe water. Hodges Reservoir functions the same as Miramar Reservoir, and the two are not connected.
15	Why pump the sewage for 20 miles? It is not economical. It is a 3-phase flow (solids, liquid and gas) and is very explosive.	Wastewater from the Morena Pumping Station will not be pumped 20 miles. It will be pumped 10.5 miles from a site near I-5 and Friars Road to the North City Water Reclamation Plant. A second, parallel pipeline is a gravity return pipeline (flowing the opposite direction) containing only brine from the reverse osmosis process and centrate from the Metro Biosolids Center. Wastewater is not explosive. In a force main system, gases are treated and vented at high points in the pipeline, as required. There are several wastewater force mains throughout the City and none has had an explosion.
16	Did the City consider building the treatment plant at the Morena facility, therefore, there would be no need for a 48" pipeline?	There is an existing North City Water Reclamation Plant with an existing capacity of 30 mgd that provides 6 to 7 mgd of reuse water for non-potable purposes (e.g., irrigation, industrial uses). There is not sufficient land to build a treatment plant at the site of the Morena Pumping Station and if there were, the costs to construct a new facility rather than expand an existing facility would be significantly more costly. It is much more efficient to pump the needed wastewater to the existing Reclamation Plant that can be expanded to meet the overall treatment needs for non-potable reuse and Pure Water.
17	If any odor is detected, will it immediately be addressed?	The pipeline vents on the wastewater force main are used on other force mains in San Diego and the air is treated with carbon filters to eliminate odors. The force mains are not venting continuously and the carbon is only required for intermittent releases. Members of the community working group have visited existing vents to verify performance of the carbon filters to eliminate odors.
18	The Title 22 Engineering Report should address the potential for odor control as much as possible given the pipeline will be constructed through residential areas of Clairemont.	The Title 22 Engineering Report addresses the health effect aspects of the water supply. The potential for odor and its impact was addressed in the Environmental Impact Report, which was certified by the City Council on April 10, 2018 and can be found at www.purewatersd.org/reports.
19	Has this been done by other utilities and what was the result?	Purified water has been successfully supplementing drinking water sources for many decades. The most recent examples are in Big Spring, Texas and at the Orange County Water District (OCWD). OCWD's Groundwater Replenishment System has produced over 250 billion gallons of purified water; more on the facility can be found at https://www.ocwd.com/gwrs.

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20	Why does the Pure Water project need to apply for a National Pollutant Discharge Elimination System permit when the discharge from the Project to Miramar is drinkable water quality?	The Pure Water project needs to apply for an NPDES permit because of its original source. After the water is monitored to demonstrate compliance and is released into Miramar Reservoir, it is sanctioned as a water supply for the Miramar Water Treatment Plant under the City's Water Supply permit granted by the Division of Drinking Water. Secondly, while the water that is released to the reservoir is very highly treated, it will not be considered drinking water until it is treated at the Miramar Water Treatment Plant. The recent regulations adopted by the State Water Resources Control Board are for surface water augmentation, not direct potable reuse.
21	How is Miramar Reservoir considered a Water of the United States for the purpose of applying for an NPDES permit?	The City of San Diego submitted a request to the Army Corps of Engineers for an Approved Jurisdictional Determination (AJD). The formal results of the AJD request have not been received, but verbal feedback from Corps staff have indicated that although Miramar Reservoir is an isolated wetland, it is considered regulated as an impoundment to a historical Water of the United States and form the potential to support interstate commerce. Waters of The United States include all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce and all impoundments of waters, otherwise defined as Waters of the United States.
22	How did the water restrictions from the drought of 2015-2016 impact sewage levels? If we have restrictions in the future, how will they impact Pure Water delivery?	Water conservation reduces the volume of wastewater returned to the collection system. The City performed an evaluation of available wastewater under a variety of conservation conditions and concluded that there is sufficient wastewater to support Phase 1 and 2 of the Pure Water Program.
23	When will the Pure Water Project apply for a 404 and 408 permit from the Army Corps of Engineers?	The North City Project requires permits from the Army Corps of Engineers, and permit applications have already been submitted.
24	Is there a plan to monitor the fish in Miramar Reservoir for affect of adding Pure Water?	The Regional Water Quality Control Board, through its issuance of an NPDES permit, will specify a monitoring program to demonstrate beneficial uses of the reservoir are sustained. This will include monitoring of fish populations in the reservoir. The monitoring program will be implemented by the City.
25	Is storm water runoff permitted at Miramar Reservoir from the surrounding area? If not, why not?	As shown on Slide 45 from the Public Hearing, the catchment area for Miramar Reservoir is about 670 acres and the reservoir itself is about 170 acres. Runoff from the portions of the catchment that have residential or commercial development is diverted away from the reservoir. This is done to protect the reservoir from accidental pollution. Only runoff from the smaller undeveloped portion of the catchment flows into the reservoir.
26	Israel has the world's highest level of using recycled water at 85%. But they use that water for agriculture and industry. They have been using desalination plants for over 60 years to produce much of their drinking water needs.	Israel is a model for recycled water for non-potable uses. One of the major factors that allows Israel to recycle more than 75% of its wastewater is that reasonably large population centers that produce wastewater are located very close to large non-potable uses, such as agriculture. Therefore, recycled water does not have to be pumped and piped long distances to reach the end use. San Diego does not have that same benefit and the major agricultural uses in California (Central Valley), for example, are very long distances from urban centers. The City currently recycles 6 to 7 mgd for non-potable reuse from the North City Water Reclamation Plant with a plan for up to 11 mgd. These demands, however, are seasonal depending upon rainfall. Expanding the non-potable uses is difficult because of location, and consequent pumping and piping requirements. Even with the very high level of treatment, Pure Water is a much more economical way to ensure that all of the water resource is used effectively.

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27	Why is some of this fresh drinking water being used for irrigation and agriculture (mismanagement of money and resources, let's get some new people on the Water Boards.)	The Carlsbad Desalination Project is supplementing the existing potable water supply provided by the San Diego County Water Authority (SDCWA). It is provided to wholesale customers and agencies through the treated water aqueducts owned and operated by the SDCWA. To that extent, it supplements all water uses based upon the delivery systems those agencies use.
28	Why is the City not considering desalination?	Desalination can be a successful approach to diversify the region's water portfolio. In late 2015, the Carlsbad Desalination Project came on-line and delivers approximately 50 mgd of drinking water throughout San Diego County. Unfortunately, the regulations for constructing desalination intakes and outfalls, and managing the high-concentration brine waste, are quite complex in California. One of the reasons that the Carlsbad project was feasible was because it could use the intake and outlet system already constructed for the Encina Power Plant. In addition, the cost of desalinated water from the Carlsbad project is higher than for Pure Water on a unit production basis ($/acre-foot produced), and would have been higher if the intake and outlet system had to be newly constructed. The region continues to look at all methods to diversify the water portfolio and Pure Water is one.
29	Why is the City not using the project cost to construct a desalination plant?	Desalination can be a successful approach to diversify the region's water portfolio. In late 2015, the Carlsbad Desalination Project came on-line and delivers approximately 50 mgd of drinking water throughout San Diego County. Unfortunately, the regulations for constructing desalination intakes and outfalls, and managing the high-concentration brine waste, are quite complex in California. One of the reasons that the Carlsbad project was feasible was because it could use the intake and outlet system already constructed for the Encina Power Plant. In addition, the cost of desalinated water from the Carlsbad project is higher than for Pure Water on a unit production basis ($/acre-foot produced), and would have been higher if the intake and outlet system had to be newly constructed. The region continues to look at all methods to diversify the water portfolio and Pure Water is one.
30	Why did the City choose Miramar Reservoir rather than San Vicente Reservoir which is larger?	San Vicente is a larger reservoir than Miramar Reservoir. It is true that conveying and pumping the water to a much higher elevation would have cost the City and the water customers significantly more money. As discussed in the presentation at the Hearing, Miramar meets the detention time and dilution requirements set forth in the Division of Drinking Water's Surface Water Augmentation regulations. There are different requirements depending upon the size of the reservoir. Because Miramar Reservoir has a smaller volume and less dilution than a release to San Vicente, additional treatment is required at the Pure Water Facility. This additional treatment, including additional removal well beyond what is required, is provided at the Pure Water facilities.
31	What is the method to turn off Pure Water immediately? It appears that it would be days to weeks to turn off the system.	There are many ways to divert water in the event that it does not meet the Division of Drinking Water's requirements for release to Miramar Reservoir. Water can be diverted to the sewer 1) after the North City Water Reclamation Plant before entering the Purified Water Facility, 2) after several of the treatment processes at the Purified Water facility, 3) at the Purified Water Facility prior to being pumped to Miramar Reservoir, and 4) after the Pure Water Pumping Station. In addition, Miramar Reservoir can be "de-coupled" from the Miramar Water Treatment Plant and the Water Treatement Plant can receive source water solely from imported raw water sources, as it currently does, until the water in the Reservoir can be tested to ensure that it meets all requirements. All of these diversions and de-coupling can be performed in minutes (e.g., the time it takes to open and close values or to shut down the raw water pumps from Miramar Reservoir). In this manner, the Pure Program is highly resilient.

Pipeline Alignment

	Comment or Question	Response
1	Why is the pipeline not being constructed on I-805?	Multiple pipeline alignments were evaluated during the design of the pipelines. Locating the pipelines along the I-805 was found to be infeasible as this would require longitudinal encroachments in California Department of Transportation (Caltrans) right of-way for construction of the pipelines within I-805. As stated in the Caltrans Encroachment Manual, Chapter 5, Section 606.1, "Caltrans' policy prohibits the placement of longitudinal encroachments within controlled access rights-of- way…requests for placement of longitudinal encroachments are permitted only when approved through Caltrans' design exception process, and approved by the DOD [Division of Design], Chief, when no other reasonable alternative is available, and it has been determined that there is available space" (Caltrans 2018a). Proposed longitudinal encroachments within the access control right-of-way of freeways or expressways on a highway identified as part of the freeway and expressway system are also prohibited per the Caltrans Project Development Procedures Manual, Chapter 17 (Caltrans 2018b). Additionally, the alternative pipeline alignment would result in the same noise and traffic impacts as the proposed alignment. Noise and traffic impacts occurring within the University City area would merely be transferred east to other communities and would also result in significant and unavoidable impacts.
2	Has the design team considered redundancy and robustness for public health protection as it relates to the raw sewage force main and the other waste pipeline running through University City?	There are many raw sewage gravity and force mains running beneath city streets in San Diego. Reliability is a key feature of the pipeline design. The design of both of these pipelines is conservative and meets all applicable codes including earthquake and other extreme events. A safety factor of 2 has been applied to the piping materials and thicknesses for the force main. The other pipeline contains brine reject from the reverse osmosis membranes and centrate from the Metro Biosolids Center. It is a gravity line, not a force main.
3	If there is no alternative route for the Morena raw sewage pipeline to avoid residential neighborhoods, how will it be monitored?	The Morena force main will have pressure monitoring to ensure pipeline integrity. In the unlikely event of a break, the pump station will immediately shut down and no additional sewage will flow through the compromised pipe. It is important to note that there are many raw sewage force mains in San Diego and no breaks have been recorded.
4	I attended the August 15 presentation of the Title 22 Pure Water Engineering Report. The presentations were devoted entirely to water purity and took as a given the selection of the Mission Valley to Miramar route through densely populated urban San Diego. The selection of the route should not be taken as a given, however. No information was provided on construction, utilities, environmental and human impact, public safety especially with respect to fire, ambulance, and police access during the construction, and short- and longer-term impact on traffic. The choice of the urban route is questionable on a number of grounds. Until these concerns are addressed, please be assured that I will join neighbors and other concerned citizens in engaging all administrative, political, and litigation efforts to stop this ill-considered approach to San Diego's water supply.	The purpose of this Public Hearing was to receive public comment on the Title 22 Engineering Report and its associated health protection, not on the facility design. There have been many meetings and hearings on the project design, culminating in the City Council's certification of the Environmental Impact Report on April 10, 2018. These issues were addressed in the Environmental Impact Report, which can be found at www.purewatersd.org/reports.
5	Is the City aware of the Morena Corridor project? There are two major projects in the area, so how will the Morena Pump Station fit with the other projects?	The City maintains a central database with all construction projects throughout the City, for the purposes of understanding construction overlaps and contractor coordination needs. Contractors are required to review other projects in the area and the specifications for the Morena Pipeline provide requirements to the Contractor for coordination with other projects. These issues were discussed in a series of meetings held in late June through August 2018 with a University City Community Workgroup.

Pipeline Alignment

6	Are the two Morena pipelines earthquake proof?	The two Morena pipelines, one to deliver wastewater to the NCWRP and the other to return reverse osmosis brine and centrate to the Point Loma Wastewater Treatment Plant, are designed to withstand earthquakes according to the most updated earthquake code requirements.
7	Why did the City not seriously consider other alignments in the EIR rather choosing the route through the residential neighborhood of Clairemont?	Multiple pipeline alignments were evaluated duing the environmental review and design phase of the project. Multiple variables were considered in determining pipeline alignements including soils, geology, traffc, noise, air quality, biological and historical resources. The route chosen is feasible and results in the least amount of impact to the environment (including communities).
8	Is the pipeline path chosen the most geologically safe path possible regardless of neighborhood income levels and property values?	Please see response to Question 10, above.
9	How is the City addressing the disruption to residents of Clairemont as the pipeline is constructed?	The Clairmont Working Group, along with other working groups, are meeting collaboratively with the program team to mitigate community impacts.
10	How does the City intend to address pipe leaks on Genessee which would greatly impact the area?	All of the sewer force main is constructed of steel, which is considered a flexible pipeline material. In addition, all of the pipeline joints are fully welded, forming a continuous pipeline with no joints posing a threat of separation. The steel pipe has a one-inch thick mortar lining to prevent corrosion on the inside and is tape wrapped, protected against corrosion with an impressed current and has a one-inch thick mortar coating on the outside. In addition, there are pressure sensors and meters to identify any discrepancy in flow delivered. When a flow or pressure discrepancy is identified, the pump station will automatically shut down and the City will identify and repair any leak.
11	Pumping raw sewage has never been done before. We're going to put these outlets for the gas to escape, methane gas, greenhouse gas, which will stink. What will be the impact to Clairemont property values?	There are many raw sewage force mains in San Diego and in nearly all metropolitan areas around the country. Providing vents along a pressurized pipe for any collected gases that vent intermittently is a common practice and is also currently done in San Diego. The gas is treated with granular activated carbon to remove the odors. Members of the community working group have visited existing vents to verify performance of the carbon filters.
12	How will Genessee Avenue be restored?	The latest street Overall Condition Index (OCI) will be used to update the design drawings for prior to contract advertisement. If an OCI is lower than 70 out of 100, an asphalt grind and overlay will be identified. For areas identified higher than a 70 out of 100, a slurry seal will be applied. After installation of the pipelines in a segment, but prior to pavement restoration, the City's Resident Engineer will evaluate the condition of the pavement and provide a new rating to account for any damage caused during the installation of the pipelines. Pavements will be restored from curb-to-curb within a right-of-way that does not contain a raised median. If a raised median is present, the pavement will be restored on any side of the street that the pavement was affected. The City's Public Utilities Department is working with the Transportation and Stormwater Department to identify funding for segments of the alignment where one side of the street to provide pavement restoration to the unaffected side streets with raised medians.
13	Is there a traffic plan for those traveling on Miramar Road going into Scripps Ranch?	There is a traffic control plan for every stage of construction. Work on Miramar Road will be at night, one lane in each direction will remain open during construction hours, and the road will be open to full capacity during non-construction work.

General

	Comment or Question	Response
1	Why are the Water Boards not concerned with the reputation of San Diego and the USA (we live in a first world country and we do not need to turn sewer water into drinking water, even third world countries cannot afford to do that).	The San Diego City Charter enumerates certain responsibilities to the Mayor and City Council. Actions related to the development of water supply sources, the operations of those facilities and the oversight of the department are the responsibility of the Mayor and City Council. The City Council approves public works projects put forth by various City Departments, including the Public Utilities Department and the Public Works Department. The City Council certified the CEQA document for Phase 1 of the Pure Water Program after receiving public comment at a hearing on April 10, 2018. If you would like to participate in future discussions about the Program, we encourage you to visit our website at purewatersd.org and sign up for our email distribution list. Additionally, you may wish to consider contacting your City Councilmember or the Mayor to express your concerns.
2	Why does San Diego continue to ignore one of the biggest sanitation risks in our City? That of the continued flow of polluted wastewater from Tijuana River into San Diego County. This problem has existed for many years and if you believe that Mexico will pay for the wall, then you probably believe that Mexico will clean up the Tijuana River.	This comment is related to cross-border polluted storm water runoff and not associated with the Pure Water Program. The City continues to work with the appropriate federal border agencies to develop a long-term solution to the Tijuana River discharge into San Diego County. For more information about the City's Storm Water Pollution Prevention Program, including the Tijuana River Valley, please visit https://www.sandiego.gov/stormwater.
3	What do you think will happen to our convention center and downtown hotels when the tourists find out that they are drinking reprocessed sewage water?	There are several water agencies throughout California and elsewhere that augment their water supply with purified recycled water. The multi-barrier water purification process has been proven to protect public health. The Orange County Groundwater Replenishment System has successfully used a similar water purification process to San Diego since 2008 and currently produces 100 million gallons per day of purified water. Orange County is home to many tourist attractions and large amusement parks. We are not aware of any negative effects to Orange County's tourism attractions after implementation of the Orange County Groundwater Replenishment System. Other places in various stages of implementing potable reuse projects include Singapore, Australia, Virginia, Texas and numerous other California cities.
4	Why does it take the City two hours to shut off a broken water main?	Water mains transport water under pressure to our customers. In order to ensure proper pressure and system reliability, they are often "looped" systems meaning the water is pressurizing the main from multiple sources and directions. In the case of a main break, emergency crews will need to find the nearest valves on either side of the break and conduct a shutdown. In many cases, the water main is a large diameter which requires the specialized work of the City's hydraulics crews to ensure proper shutdown in a measured manner to reduce or eliminate the creation of a water hammer which may cause more damage to other components of the delivery system. In recent years, City crews have reduced the response time to the report of a water main break to under 30 minutes. This accounts for travel time from the time of the report to arriving on site at the reported break. Crews then determine the severity of the situation and determine the next steps to shutdown, which may include the need to call in the specialized crews depending on the variables associated with the break. Water is a precious commodity to us and we do our best to conserve it. However, every water system in the nation experiences water loss. According to the American Water Works Association, the average water agency experiences an annual water loss of 8-12% of its total demand. The City of San Diego experiences an annual water loss of 3-6% of our total demand, but we always strive to improve.

General

5	Will there be a local hire agreement in order to ensure quality workmanship on a project of this size?	The City Council has been working with the Mayor's Office, the Public Utilities Department and the Public Works Department to apply appropriate skilled and local workforce language into the construction specifications.
6	Why not have the Public Hearings ahead of design completion to hear the objections and questions from the public?	This specific Public Hearing is for the Title 22 Engineering Report and the public health aspects of the project. The project must be completing design to finalize the Title 22 Engineering Report and to seek approval by the Division of Drinking Water.
7	Australian research shows that reuse of sewage for potable water would never be considered.	Australia has played an important role in the development of potable reuse internationally. Most significantly, Australia was the first country to develop national water quality guidelines specifically for potable reuse. This has recently been followed-up with the development of detailed protocols for the validation of treatment performance for a number of key advanced water treatment processes. An important groundwater replenishment project is now operational in Perth, Western Australia. A smaller scheme in Sydney, New South Wales, produces highly treated reclaimed water for river-flow augmentation upstream of a drinking water intake.
8	Why don't we get to vote on this project?	The City Council approves public works projects put forth by various City Departments, including the Public Utilities Department and the Public Works Department. The City Council certified the CEQA document for Phase 1 of the Pure Water Program after receiving public comment at a hearing on April 10, 2018.
9	Giving the public their 3 Hearings in the span of only 32 hours during a week when kids are going back, getting ready to go back to school, or on vacation does not provide a good sample of the population most likely to be affected. Most people I talked to were unaware of the letter sent to them with the information and couldn't make it to the Hearings. Also, I wish I had been given more time to think after the presentation in order to formulate educated questions.	As required in the Division of Drinking Water's Surface Water Augmentation regulations, notice of the Public Hearings was mailed 60 days prior to the public hearing and the Title 22 Engineering Report was available both as a hard copy and on-line for review during that period. Many regulations only require one Public Hearing, but three were provided primarily to allow for a variability in time and location for convenience of the attendees. Two were held at the Public Utilities Department auditorium in the morning and evening to provide schedule flexibility, and a third was scheduled late afternoon/early evening at a different location (the North City Water Reclamation Plant conference room) for location flexibility.
10	Why did the Public Hearings happen after the first phase is already in the plans?	The City prepared a Program Level CEQA document (Pure Water Program Environmental Impact Report SCH-2014111068) that provided an analysis of the entire Pure Water Program. During that CEQA process, we had two public scoping meetings (December 2014) and published a draft Environmental Impact Report (EIR) for public review and comment. The Final EIR went to City Council and was certified at hearing on October 25, 2016. At that hearing the Council passed a resolution of approval for the Program as a whole. The project level CEQA document for Phase 1 of the Pure Water Program began in 2016. The City prepared a project level CEQA/NEPA document (Pure Water Program North City Project Environmental Impact Report SCH-2016081016) that provided an analysis of the North City Project. During that CEQA process we had two public scoping meetings (August 2016), a public workshop (October 11, 2016), and published a draft EIR for public review. The Final EIR went to City Council and was certified at a public hearing on April 10, 2018. This hearing was specifically related to the Title 22 Engineering Report, which is required by the Division of Drinking Water according to the Surface Water Augmentation regulations. The report is based upon the North City project designs.
11	Are the people in support of this project going to be the primary users of this water?	Since 2004, public perception in San Diego about supplementing water supply with recycled water has evolved positively. The purified water distribution area will include the portion of the City of San Diego that receives potable water from the Miramar Water Treatment Plant in addition to the City of Del Mar. A map of the purified water distribution area can be viewed online at https://www.sandiego.gov/sites/default/files/pw_distribution_area_phase_1.pdf.

General

12	After reading all of the information sent out to homeowners and as a citizen of north county, I would like to express my absolute objection to recycled sewer water getting into our reservior and into our drinking water system. I cannot imagine the panic that will ensue when we will enevitably be issued a boil water order. I do not have to imagine what will be in that water, Hepatitis A, B, C. Blood products, Ecoli just to name a few. While I do unerstand we have water needs in Southern California, I cannot believe that this is even being considered. Please work with the Water Authority and come up with a plan to import clean water or look into another desalination plant. Please reconsider this objectionable plan.	The City conducted a demonstration project (2009-2013) that confirmed the purified water meets all federal and state drinking water standards. This included the construction and operation of a one-million-gallon-per-day Pure Water Demonstration Facility to test the safety and reliability of full-scale water purification technology to purify recycled wastewater to meet all state and federal drinking water standards. During a one-year testing period, more than 9,000 laboratory tests were conducted on 342 chemical and microbial constituents and water quality parameters. All tests confirmed the water meets or exceeds all federal and state drinking water standards. A summary of the purified water quality and testing results can be found in Section 9 of the Title 22 Engineering Report online at: https://www.sandiego.gov/sites/default/files/ncpw_project_draft_title_22_engineering_report_0.pdf. To date, the City has performed more than 30,000 laboratory tests on the purified water. Since the demonstration project, the effectiveness of the water purification process has been improved even further with two additional treatment barriers: ozonation and biological activated carbon filters, which enhance reliability through treatment redundancy and robustness. The multi-barrier water purification process has been proven to protect public health. The Orange County Groundwater Replenishment System has successfully used a similar water purification process since 2008 and currently produces 100 million gallons per day of purified water. The purified water will supplement and blend with the City's imported water supplies from the Colorado River and North California Bay Delta. There are 399 water agencies and cities that discharge treated wastewater into the Colorado River and Northern California Bay Delta, which provide San Diego's water supply. When fully implemented in 2035, the Pure Water Program will produce approximately one-third of the City's water needs. The remainder of the City's water will be sourced from imported water, desalination and groundwater.
13	San Diegan's have consistently opposed any plan of the Water Board to use reclaimed water in our drinking water supply, and I want to loudly echo this sentiment. No matter the argument, I do not trust the Public Utilities Department to effectively remove all contaminants from a reclaimed source.	The City conducted a demonstration project (2009-2013) that confirmed the purified water meets all federal and state drinking water standards. This included the construction and operation of a one-million-gallon-per-day Pure Water Demonstration Facility to test the safety and reliability of full-scale water purification technology to purify recycled wastewater to meet all state and federal drinking water standards. During a one-year testing period, more than 9,000 laboratory tests were conducted on 342 chemical and microbial constituents and water quality parameters. All tests confirmed the water meets or exceeds all federal and state drinking water standards. A complete summary of all water quality monitoring results can be found online here: https://www.sandiego.gov/sites/default/files/legacy/water/purewater/pdf/projectreports/awpfappendixb.pdf. To date, the City has performed more than 30,000 laboratory tests on the purified water. Since the demonstration project, the effectiveness of the water purification process has been improved even further with two additional treatment barriers: ozonation and biological activated carbon filters, which enhance reliability through treatment redundancy and robustness. The multi-barrier water purification process has been proven to protect public health. The Orange County Groundwater Replenishment System has successfully used a similar water purification process since 2008 and currently produces 100 million gallons per day of purified water.

General

14	I attended the Public Hearing in San Diego on 15 August 2018. I did not have a print out of my comments, so I am sending this email. Thank you again for hosting the public hearings. I'm confident that each of the presenters do their best at their job, but I don't trust the presenters, the scientists mentioned in the slide show, or anyone else, to execute a project like this safely. I'm disappointed in myself that I didn't put more effort into opposing this project in the past.The only way I'm comfortable with water that was once in my toilet ending up in my tap is if it • Flushes down my toilet • Is processed in the sewer system • Pumped miles out to sea • Mixes with lots of ocean water • Evaporates • Falls as rain • Trickles into the ground water • Is pumped into the municipal water system • and sent back to my house. I've read that the total of agricultural uses in California consume 4 times more water than all Urban uses. I respect water rights. I think the public utilities should pay market prices for some of those water rights and use that water for urban consumers. Please send me links to any information where this option has been studied. I also trust desalination more than the toilet-to-tap reclamation described in the public hearing.	The City conducted a demonstration project (2009-2013) that confirmed the purified water meets all federal and state drinking water standards. This included the construction and operation of a one-million-gallon-per-day Pure Water Demonstration Facility to test the safety and reliability of full-scale water purification technology to purify recycled wastewater to meet all state and federal drinking water standards. During a one-year testing period, more than 9,000 laboratory tests were conducted on 342 chemical and microbial constituents and water quality parameters. All tests confirmed the water meets or exceeds all federal and state drinking water standards. A complete report of the Demonstration Project and all water quality monitoring results can be found online here: https://www.sandiego.gov/sites/default/files/legacy/water/purewater/pdf/projectreports/wpdpfinalprojectreport.pdf To date, the City has performed more than 30,000 laboratory tests on the purified water. Since the demonstration project, the effectiveness of the water purification process has been improved even further with two additional treatment barriers: ozonation and biological activated carbon filters, which enhance reliability through treatment redundancy and robustness. The multi-barrier water purification process has been proven to protect public health. The Orange County Groundwater Replenishment System has successfully used a similar water purification process since 2008 and currently produces 100 million gallons per day of purified water. Information on Orange County's project can be found at https://www.ocwd.com/gwrs/. Other places in various stages of implementing projects include Singapore, Australia, Virginia, Texas and numerous other California cities. A map with information on similar projects around the world can be viewed online here: https://watereuse.org/water-reuse-101/global-connections/.

General

15	I attended one of the public hearings on this -- which should have taken place early in the planning stages, rather than at this late date when it appears to be a fait accompli. I listened carefully to the presentations, and to some serious and disturbing concerns raised by several people in attendance. The net effect is that it strikes me as a spectacularly dubious project, which smacks of overconfidence to the point of being scientific hubris -- that perfect safety can be engineered into something for which the cost of oversight or a failure would be dire indeed. I find it hard to believe that there is a lack of viable alternatives. The general public may be snoozing as regards this development, but I have to think a great many will be shocked once the full details of it sink in. Hopefully, the anticipated legal challenges will exert some positive effect. Failing that, I would like to see an exact map of the projected service area, so that I can consider moving outside of its boundaries..	The City of San Diego was not permitted to move forward with holding the Public Hearings until it received approval to do so from the State Water Resources Control Board, Division of Drinking Water. Such approval was received on June 8, 2018. The City was required to notify the public at least 60 days in advance of the Public Hearing. Additional opportunities for public involvement were made available during the development of the Pure Water Program Environmental Impact Report, which included two public scoping meetings in December 2014. Additionally, two public scoping meetings were held in August 2016 and one public workshop was held in October 2016 for the Pure Water Program North City Project Environmental Impact Report (EIR). The Final EIR went to City Council and was certified at a public hearing on April 10, 2018. Two free public open house events were held at the North City Water Reclamation Plant in October 2016 and October 2017, which were attended by more than 1,000 community members and provided the public with the opportunity to learn more about the project and meet with project staff. The purified water distribution area will include the portion of the City of San Diego that receives potable water from the Miramar Water Treatment Plant in addition to the City of Del Mar. A map of the purified water distribution area can be viewed online at https://www.sandiego.gov/sites/default/files/pw_distribution_area_phase_1.pdf.
16	Before the Pure Water project goes forward, there must be full implementation and enforcement of the Pretretment program by the Pure Water project, the regional and state water boards and the Division of Drinking Water.	The City of San Diego currently has an operating Industrial Waste Control Program. The City administers and enforces the control program for the entire wastewater system to protect the system and wastewater treatment plants from unwanted discharges. This program was enhanced beyond federal and state requirements to meet specific needs of the ocean discharge permit for the Point Loma Wastewater treatment plant. The control program includes an extensive monitoring program, an assessment of the fate of specific chemicals in the collection system and through treatment, an inventory of constituents that may be discharged into the collection system, and an outreach and enforcement program to minimize chemical discharges.