Public Works Department

433 N. Virginia Street
Prescott AZ 86301
928-777-1130

Pretreatment Program Stakeholder's Meeting
February 21, 2013, 2:00 p.m.
Public Works Conference Room

Meeting Notes – not intended to be verbatim

City Staff
Mark Nietupski
Joel Berman
Scott Gregorio
Jeremy Reynolds
Teresa Ogle
Marla Miller, ARCADIS

Stakeholders
Rich David, Ruger
Jean Van Metre, Ruger
Jerry Winters, PureWafer
Robert Cornell, PureWafer
Jeff Whitlock, PureWafer
Chris Panos, Ester-C
Joe Witek, Sun Fashion Design
Brian Nelson, Sun Fashion Design
John & Roxanne Nielson, Prescott Brewing Co.

Mark Nietupski welcomed the group. Mark explained that the City is in the last phases of the pretreatment program implementation. In March 2012, City Council authorized a contract with ARCADIS. Marla Miller, a project engineer, has been assisting the City in the past year to fine tune a program that began in 2005, and is now going to be submitted to ADEQ for compliance.

Joel Berman stated that there will be another public meeting next Thursday, for more commercial type users. In addition, there will be a presentation to the City Council and a public comment period coming up in the near future. There is information on the City's website, as well as contact information.

Marla Miller, a consultant with ARCADIS presented information about why the program is needed. There are three different wastewater treatment facilities in Prescott - the Airport Water Reclamation Facility, the Sundog Wastewater Treatment Plant, and the Hassayampa Village Water Reclamation facility. The Hassayampa Village facility is just a scalping plant which takes domestic wastewater that would otherwise go to the Sundog plant. The plants focused on today are primarily the Sundog and Airport plants.

The treatment plants receive a mixture of wastewater sources - industrial, domestic, commercial facilities, as well as waste haulers. The wastewater is coming into the treatment plants, and the City is taking the treated water and discharging it into recharge basins. Recharge basins are basically the receiving end of the treatment plant effluent. The City is to discharge effluent to the recharge basins under an Aquifer Protection Permit (APP). The APP permit protects groundwater quality, and is administered by ADEQ. The permit has specific requirements for the City as to reporting, frequency of sampling, and parameters to be analyzed inthe wastewater treatment plant discharge.. It also includes effluent standards the City is required to meet. The wastewater treatment plants are designed to treat domestic wastewater. Domestic pollutants include organics (as measured by biochemical oxygen demand), nutrients, like ammonia and phosphorus, and solids. The treatment plants are optimized to treat these domestic pollutants. Industrial pollutants, such as metals, are

only treated secondarily, and are not efficiently treated in the plants. These industrial pollutants are controlled through categorical standards or local limits.

What happens when a wastewater treatment plant exceeds an APP or discharge permit? The City has reporting requirements under the APP permit, and ADEQ is notified of a discharge violation. ADEQ has enforcement options such as a Notice of Violation that they would issue to the City, or a Consent Order that would force the City to take specific actions in a specific timeframe, along with fines of up to $25,000 per day per violation. ADEQ takes this seriously, and potential implications for the City are very serious. The APP permit has limits for a wide variety of pollutants. There are compounds that aren't necessarily treated efficiently in the wastewater treatment plant – like metals. The City has to control the pollutants coming into the treatment plant in order to meet effluent discharge limits.

The objective of the pretreatment program is to focus on controlling wastewater discharges which are going into the sanitary sewer, which would also prevent sewer overflows. This will also protect the wastewater treatment plants, and maintain a high quality of effluent – discharge coming out of plants, and biosolids (sludge) coming out of plant. The pretreatment program also protects the public, city workers and the environment.

The City has been working on several elements of the pretreatment program. The Sewer Use Ordinance (City Code Ch2-1) establishes the legal authority for implementing the pretreatment program and establishes responsibility and authority of the Public Works Director. It also provides a list of prohibited discharges, and sets up a permitting program to issue industrial wastewater permits. This ordinance is based on guidance from USEPA. An Enforcement Response Plan (ERP) has been developed and an updated local limits report created. The ERP is a set of procedures for the City to use when there is a violation. After becoming aware of a violation, the City issues a notification, either verbal or written to the user. The user sends back a response describing what happened and how it will be prevented in the future. ERP sets up a procedure to ensure response is fair and consistent, and response to the user is in line with the nature and severity of the violation.

Rich: How do you see this working when you find an issue? Will sampling only occur when you find an issue, and are all industrial users sampled?
Marla – The City issues a permit, the permit will specific how frequently you will need to sample. For example, if you are sampling once a month and reporting to the Water Protection Specialist on a monthly basis, the Water Protection Specialist will review the report for any violations. If it's just barely over the limit, the Water Protection Specialist may call you. If there is something that is severe, maybe indicative of a process change, he may have to write it up or conduct a visit. Sampling frequency will be part of the industrial wastewater permit, and limits on wastewater will be included in the permit.

Rich: Do you control sampling – with auto samplers? Will the City control sampling?
Marla – It depends on a wide variety of things. Right now, the users will be responsible for sampling. The permit will say how to sample, analytical methods, etc.

Rich: When will we have that information?
Marla – The permitting process will take some time. You will get a permit several months out. The Water Protection Specialist will be issuing permits working with users to develop permits.

Rich: Will permits be different for each company?
Marla – Yes, they will be based on your operations, and wastewater characteristics.

Jerry: How will sampling frequency be determined? Some testing is very expensive.

Marla – It depends on what chemicals you are using, the type of operation, what processes you have in place for pretreatment, volume of wastewater being discharged. This information is needed to process the permit. Some parameters may be required to be analyzed monthly, but others may be analyzed on an annual basis.

Chris: Will someone come out and evaluate our business?
Marla – Yes, that will be the Water Protection Specialist's responsibility. The City will work with you to develop the discharge permit.

Jean: Will you be closely following EPA?
Marla: Yes, will be following EPA and ADEQ guidance. EPA and ADEQ guidance documents provide a list of minimum requirements to be included in permits.

The Enforcement Response Plan (ERP) will come into play after permits are in place, and a sampling schedule is in place. Local limits evaluate the maximum pollutant loading that can be received at the treatment plant and still meet APP limits. Pollutant loadings are a combination of concentration and flow, and measured in pounds per day. The local limits only apply to Significant Industrial Users (SIU's).

Jerry: Most of the industrial users feed into the Airpark – the smaller of the 2 treatment plants.
Marla - Local limits were calculated for both the Airport WRP and Sundog WWTP and the most conservative (from the Airport) were recommended.

The City is currently conducting the Industrial Waste Survey. All SIU's were provided the postcard in their packets. The purpose of the survey is to let the City get a good understanding of the nature and characteristics of wastewater received and who is discharging. The survey includes questions on operations, chemicals stored and used, past sampling, and information on wastewater flow.

Roxanne Nielson: How are the Significant Industrial Users identified?
Marla – Defined per 40CFR as users who are subject to categorical pretreatment standards, which is based on SIC code; discharge 25,000 gpd; contribute 5% or more of hydraulic capacity of treatment plant; or are designated by City based on potential to impact treatment plant.

Local limits were calculated by:
Influent Loading = Amount removed by treatment plant + Effluent Loading
For the local limits calculation, you start with the APP permit, account for the pollutant amount that will removed by the treatment plant to come up with an Allowable Headworks Loading (AHL)

John Nielson, PBC: How do you figure gallons to pounds conversion?
Marla: Using concentration in mg/L and flow in units of mgd, the conversion is 8.34. Will send the exact formula to you.

John Nielson, PBD: Are APP pemits for the treatment plants available to view?
Marla: Not sure if you can get these on ADEQ's webpage. APP's are issued every 5 years.
Joel: We will send copies of the APP permits to you.

Allowable Headworks Loading (AHL) is made up of Industrial Discharger Load, Residential/Domestic Load, Commercial Users Load, Waste Hauler Load, Safety Factors and Growth Allocation.

To get what is allowed for industrial users, we have to take the AHL and subtract the other sources – AHL backing out domestic, commercial, waste hauler loading. This results in the amount that can be allocated to industrial users. This then gets converted to a concentration based limit, reported in units of mg/L, and is split between all industrial users as a permit limit. You have one loading factor that needs to be broken down

into a concentration based limit. The allowable industrial loading is divided by the industrial flows to yield the concentration based local limit (as mg/L). Flow data comes into play for calculating local limits. It is easy to get concentration data, but getting good flow data can be problematic.

Rich: Industrial loading is most verifiable. All other loads vary. How do you calculate that out to get allowable industrial load? What safety factors do you use?
Marla: We have good data at the influent, and we have data at some of the industrial users. We have collected samples at manholes to get an understanding of residential loading. We have good data on flow from waste haulers. Safety factors really depend on data. If you have good, steady data, you don't require as much of a safety factor. If it's all over the place, you need a higher safety factor. If samples are composite as opposed to grab, that will be result in higher quality data. If samples are all at the reporting limit, you will have more analytical variability, and will have to weigh the variables together to assess the safety factor.

Jeff: Will input you received from postcards possibly change your calculations?
Marla: It won't change the calculation. The local limits calculations were based on samples collected between 2010 and 2012. What could change is that we may have more industrial users we need to assess, so flow rates could be involved. The AHL won't change, but how it's divvied up could change.

Joe: Can the City lower the allowable industrial load?
Marla: If ADEQ reissued and lowered the City's APP limit, the pollutant loading that the treatment plants could accept would have to be lower. The City's APP limits should be consistent for the next several years. APP permit is renewed every 5 years.

Jerry: What if a jewelry manufacturer moved in, and started using to the limit that the City has established, would you have to lower limits on nickel, or other elements?
Marla: That is part of the reason we have a safety limit. If a new industry came in and was issued a permit, we would have to analyze effect on limits. Maybe frequency on sampling would need to be increased.

Jerry: Of the 18% of industrial flow, 16% is PureWafer. What happens if PureWafer comes out of the mix.? Does that have an effect on all the limits established?
Marla: Yes. 18% of the influent loading is from industrial users and this has an influence on the plant. If the treatment plants operation became more efficient, or your process became more efficient or you stopped discharge, we would have to go back and assess the impacts.

Roxanne: The Airpark area is currently undeveloped. What happens when it is built out?
Marla: Industrial load is 18%, but if you had more non-industrial sources coming in, it could dilute the impact of the industrial loading.
Mark: This not a static number. There will be periodic updates of the local limits. There will be periodic samplings and analysis of the waste stream so limits can be updated to reflect current conditions.

Rich: Permits are issued for a 5 year period, correct?
Marla: It could actually be shorter than this. If an industrial user says they have changed operations, it makes sense to reissue a permit.

Rich: But for an unchanging situation, there wouldn't be a change?
Marla: Yes. Again, as Prescott and the industries and users evolve, the pretreatment program and permits will also evolve.

Jerry: Within that 5 years, if the City has issues meeting the ADEQ limits, you could actually make changes within that 5 year period.

Marla: Yes. That wouldn't make sense to continue to violate. I haven't seen permit limits change that frequently, unless something major happens. Part of the permit process will include identifying Best Management Practices that will make it easier for your operations to control discharges.

Jeff: So permits aren't necessarily 5 years for all users?
Marla: If a user came to town, and said they were going to be undergoing expansion and a lot of changes, maybe a one or two year permit would be issued. But if it is a mature industry that has their processes down, a five year permit is probably acceptable.

*Asterisk on PBC Microbrewery – because they are not in full production yet, so numbers may change a bit.

Roxanne: What kinds of businesses received the postcard?
Jeremy: We took all non-residential accounts, then excluded office buildings, warehouses, etc.

Joe: What is the process for reporting spills?
Marla: If there is a spill that is going into a stormdrain or sanitary sewer, you would report. If it is isolated and will not impact anything, you would not report. The City would like to help tailor Best Management Practices for your specific industry to prevent spills.

John: Is the City out of compliance? Is that why you are implementing this program?
Marla: Yes, the City has been issued an NOV due to fluoride exceedances, the pretreatment program is our response to ADEQ for avoiding future violations.

Jerry: Ordinance 2-1-21 pg 37, sewer rates, section B, rates can change based on amounts of solids, BOD's, etc. Can each company be charged differently based on solids and input?
Marla: The city is currently evaluating a new utility rate study. If we had an industry that was discharging really high BOD, versus an industry that wasn't, the cost of treating the waste streams are different. There is at least an option to have these different rates.

Jerry: The Ordinance is going through review. It could be adopted. This is scary that our rate could be changed because we have too much fluoride, or nickel could be charged at a different rate.
Marla: This is in flux right now.
Joel: This section has not changed and is part of existing code right now. The rates will move through a separate process, where the City is required by the state to hold multiple hearings about the rates themselves.

Jerry: Same section, item F. The City will establish a Financial Management System, if their cost goes up, rates go up accordingly.
Marla: There are costs associated with the pretreatment process. This is not new to the ordinance.

Jerry: Same section, item G. We are annually going to be sent a bill to tell us what our individual rate will be.
Marla: Again, this isn't new, so if you haven't seen it, it hasn't been implemented.

Jerry: Section 2=1-39. Item L. Any water or wastewater having an average daily flow greater than 2.5% of plant capacity could be prohibited. We're already at 16%.
Marla: This section was modified. If you hit 2.5%, this could be a trigger, and you could be prohibited, or at discretion of the Public Works Director. Your permit would have a flow limit in it.

Joe: Could the treatment plant capacity be increased if need be? If the airport area was completely developed, could it handle it?
Mark: There's a master plan that identifies that at build out, the City could be treating 15 mgd. There has been discussion that there may be a central treatment facility that could be located at the airport plant.

Modifications going on right now will make the plant scalable so that is can be increased incrementally as the need is identified. The ordinance creates a process for the City and all industrial users to engage in the process of determining what our limits are, how your industry affects our facilities, what needs to occur so we are both being responsible about the environment.

Jerry: When I see that I could be prohibited if I exceed 2.5%, and I'm at 16%, it is scary. I could be prohibited from discharging.
Mark: The ordinance is based on model guidance from ADEQ and EPA. In order to get the process approved through ADEQ, we cannot deviate from this guidance.

Jean: What was the plant out of compliance for?
Marla: Fluoride.

Jerry: 2-1-45 If required to put in infrastructure at my expense, it could take a year to build. Will time be given to put in a system?
Marla: There will need to be a study to evaluate if there one piece of equipment that will work for you, or equipment plus Best Management Practices? The City will work with the user, and there will be a compliance schedule.

Jerry: Knowing that I am the one putting the City out of compliance, the longer I don't get that done, the longer the City is out of compliance. How long is the State going to allow the City to be out of compliance?
Mark: Can't speak to what the State will do. The City is methodically going forward with our requirements under the law. That is what our obligation is as far as compliance as it relates to a specific user and the permitting process. Those kinds of issues will be addressed individually going forward with everyone. Initially, we have the obligation to implement this program, and regulate those substances identified.

Jerry: If I was required to meet a 16 ppm level, that's not going to happen overnight. How do we handle that?
Mark: I understand that this can't happen overnight. How do we get there? That's something we will have to work through.
Marla: And this will be involving ADEQ, they are aware it will take time to develop.
Joel: 2-1-67-2 Compliance schedule. Describes steps to install pretreatment. Schedule allows 9 months between each activity. This schedule is from the EPA model.

Rich: In the same section – Item C - plan specifications, how will review process work? As an SIU, we will be submitting plans, will you review our facility?
Marla: I see it as part of the permitting process. A back and forth process. A pretreatment program should not be developed in a vacuum. City staff should be involved.

Jean: Have you drafted permits before in this department?
Marla: No. This is a brand new program. ADEQ has deliverables, and provides guidance on how to create permits, fact sheets, how to evaluate, etc.

Joe: When do you think the Water Protection Specialist will be able to come out and develop permits?
Mark: Probably by the end of July, our webpage will be updated with a schedule for putting the program in place. The Council will probably see this ordinance toward the end of April. Then it will go back to ADEQ for review. Once they complete their review, if they find it in conformance, a public notification period starts. 30 days after that, the program would be subject to final approval. The earliest will probably be July.

Rich: Will our comments be taken into account or is the program already set in stone?
Mark: No. This is the first step in an interactive process. We want to hear feedback from everyone affected by this, and we will take it into consideration. Ultimately there will be a public hearing in early March, a

presentation will be given to Council, and there will an opportunity for the public to comment. At the end of 30 day period, information will be considered, assembled, and then discussed with Council. The final product must meet ADEQ's approval.

Rich: If July is when the program goes forward, how long do you think it will take to issue a permit? Three months?
Marla: Yes, that sounds about right. Not all permits will be in process at the same time.

John: What is the cost of the permit?
Marla: This has not been determined. The program needs to be funded. The utility rate study will be reviewed.

Joe: When will we find out what the fee schedule will be?
Mark: We will engage you all when we discuss program fees. We will have a handle on fees by May/June timeframe. The program is a significant time commitment. A full-time employee will probably be required for reporting requirements.

Roxanne: Will fees be flat fees, or on a sliding scale?
Marla: It is unknown at this point.

Joe: If you cut back on what you are doing, would fees be scaled back?
Marla: We are looking at other cities to see what is working. When preliminary information is available, you will be notified.

Jerry: 2-1-46 Item C, Public Works Director may require businesses to put in storage facilities for holding their wastewater.
Marla: For industries who do batch processes that are impacting a treatment plant, a user may be asked to store and discharge evenly to minimize impact to plant (pretreatment storage).

Jerry: 2-1-48 Section A, page 60, knowing the cost of some testing , sampling and analysis frequency will be determined by the City?.
Marla: This will depend on characteristics and volume of your wastewater. Frequency may be based on if your results are consistent month to month.

Robert: Section states that this must be an approved laboratory. Could it be a combination of in-house and an approved laboratory? For example, an inline pH meter.
Marla: For that case, what we might have you do is a pH sample analyzed by laboratory once or twice per year, to verify the inline calibration is OK.

Robert: It states that all testing should be at an approved lab.
Marla: Will check on this. City of Phoenix has users with inline pH meters. Will check on how ordinance was written.
Scott: One thing about pH, testing must be done within 15 minutes of collecting sample, could not send to lab.

Jerry: Same section, item F, industrial users responsible for non-routine sampling analysis done by the City
Mark: This would probably apply to situations where an exceedance has occurred. If more sampling was required for a confirmation for a specific user.

Jerry: Baseline monitoring, and 90-day compliance reports and testing… Will we be required to do this?
Marla: It depends on how much previous data you have. A baseline sampling may be required if you don't already have data.

Robert: Is that 90 days of sampling? It talks about 90 day compliance report.
Marla: No, it is not 90 days of sampling. It is a 90 day report.

Robert: How much sampling is required for these reports (baseline and 90-day compliance)? One day? One week? This is not explicit in the document.
Marla: Will check on this. Could be determined during permit process.

Rich: in this same section, record keeping is discussed. Will record keeping be specific to the permit?
Marla: There will be a section on what record keeping you will be expected to maintain, how long you are expected to keep them.

Jerry: 2-1-49 development agreements with industrial user and discharge limits, grandfather clauses. Will we deal with the legal department on this section?
Mark: As far as issues, the City will be responding to your most recent letter in the near term. This is part of the existing code.

Jerry: Item G. page 66, Emergency suspensions. Criminal prosecution.
Marla: You are at looking at the worst-case scenario. If a user is violating, and is not working with the City, the City needs protection. That is where this section comes into play.

Jerry: Section 2-1-58 Inspections and Administrative Review at any time. We run 24 hours per day. It would not be good if a review is done on night shift.
Marla: It would be good for all supervisors to know where documentation is kept, but this is not the intent. It is anticipated that site inspections would be conducted during business hours.

Jerry: Section 2-1-61 City can change standards at any time.
Marla: What is going to trigger that is something significantly impacting the City, and violations that ADEQ is enforcing.

Robert: Timeline conflicts, 30 days to submit, get feedback in 30 days. 65-3, 65-8, 67-2. when regulation goes into effect, 12 months to comply, etc.
Marla: There's at least a response within 30 days. Will check on this to ensure there is adequate time to bring onboard significant equipment. Ensure scheduling makes sense. Compliance schedule will help.

Chris: Is fluoride the only non-compliance? How's BOD, and pH levels at the plant?
Marla: Yes.
Mark: The plant is capable of treating 1.2 million, currently treating 1.1 million. That's why we are building the new facility. New facility will have greater capability.

Rich: Section 2-1-39 Item B, limits on oils, odors. How do you set these limits, you say "if it affects the plant". How do you determine that?
Marla: For the odor, it would be triggered by complaints. Other issues, like oil and grease, it could be more of due to sewer overflows, the City would back track to an industry to find out what is going on. If there were problems seen at the headworks, they would back tracked.

Rich: Section 2-1-44 Item B, talk about mass based limits. How do you determine those?
Marla: That would be handled in the permit process. For the vast majority of users, concentration base limit is going to be easier. With mass based, you will also have to have a flow measurement. There could be a user where a mass base would be beneficial. For permitting purposes, we will most likely be looking at concentration base.

Rich: 21-46 Accidental Discharge – it appears that you are asking for a plan for an accidental discharge. What do you want this plan to look like? Will everyone have to have this plan?
Marla: I don't think everyone will need this. It will be on a case-by-case basis, depending on amount of wastewater flow. Only for facilities that are generating and storing a large volume. Right now we don't have a specific format for that. This would probably need to be a template. Will look at other Cities to see what they are using.

Rich: 21-66, Are you saying you will be imposing effluent limits based upon some kind of practice?
Marla: Effluent limits will be based on local limits or categorical limits.

Chris: Page 16, Significant Industrial Users, discharges more than 25,000 gallons per day, and on number 3, it says more that 100gallons per day.
Marla: If you are a categorical industrial user, if you have already been classified that, you are already an SIU because you are categorical. If you are discharging 100 gallons per day of categorical wastewater, that is the trigger. Categorical is based on your SIC code, and driven by 40 CFR. This is a federal requirement, and as a categorical you have to sample specific metals and submit that to EPA. This will be specified on your permit.

Rich: Local Limits, page 29, current limits, what you actually tested for, and the recommended limits. Ordinance numbers are different. Total metals, current limits but no limit in the ordinance.
Marla: We are moving away from a limit on total metals and having limits on specific metals.

Rich: Testing results, there parameters (metals and inorganics) that were tested for, that don't have limits here, and there are limits here for things we are not testing for.
Marla: This was based on pollutants of concern. EPA has about 15 baseline ones that they want you to test for. Based on characteristics of wastewater, industrial users in town, there were a few parameters added that we thought were pollutants of concern. Once data was collected, we looked at the results compared to the City's APP permit, health & safety limits, sludge limits. If the results didn't exceed a trigger then they were not considered a pollutant of concern. There are tables in Appendix B that summarize the pollutants of concern. A broader list of analytes was initially analyzed, but we only calculated local limits on the compounds that would be pollutants of concern.

Jean: Could you define peak flow times, it seems that the Director can limit our flows during peak flow times.
Scott: Peak flow is maximum daily flow at a given time. The plant's peak flow is between 9:00 a.m. -12:00 noon. Limiting flow would only occur during an emergency situation. Max flows are written into the permit.

Chris: What is your safety factor number?
Marla: The safety factor number will vary; there's a table (Table 22) which lists safety factors. EPA requires a minimum of 10%. A lot of planning went into this number. Once we have more data, these numbers may change.