

US EPA ARCHIVE DOCUMENT

**City of Phoenix 91st Avenue Wastewater Treatment Plant (WWTP)
NPDES Permit No. AZ0020524**

COMMENT RESONSES

Comments in BOLD
Responses in plain text

1 – CITY OF PHOENIX COMMENTS. The City of Phoenix (COP) commented on the draft permit and fact sheet by letter dated March 16, 2010. EPA summarizes COP’s comments as follows:

1-1 Reporting and Monitoring. COP requests that EPA identify the regulatory authority for the permit provision requiring COP to provide Arizona Department of Environmental Quality (ADEQ) and Gila River Indian Community (GRIC) with copies of various notices. COP also requests that EPA clarify which notices COP is to provide to ADEQ and GRIC. COP requests that notification requirements be limited to those situations in which a substantial health and safety matter arise from discharge of reclaimed water from the 91st Avenue WWTP.

The final permit requires COP to:

“report any noncompliance which may endanger health or the environment”, and provide information related to such noncompliance to EPA, ADEQ and GRIC (see, Permit, Part II.A);

provide ADEQ with copies of Discharge Monitoring Report and other required reports (Permit, Part II.B.9); and

provide ADEQ and GRIC with an annual report regarding in-stream monitoring (Permit, Part III.C).

See also, Permit, Part II.B (regarding reporting of data results to ADEQ, and availability of QA Manual), and Part III.E and F (regarding reporting and availability of records related to biosolids and pretreatment).

The subject reporting requirements are authorized by Clean Water Act, sections 308 and 402, and 40 CFR 122.43(a). See, *In re NPDES Permit for Wastewater Treatment Facility of Union Township, Michigan*, NPDES Appeal Nos. 00-26 & 00-28 (EAB 2001) (holding that NPDES permit requirement to supply copies of reports to local Indian Tribe not overly burdensome and authorized under §§ 308 and 402(a), slip op. at 18-21). In light of the governmental status of ADEQ and GRIC, and the discharges’ possible impact upon their respective jurisdictions, EPA concludes that the subject reporting requirements are appropriate and not unduly burdensome.

EPA revised provisions in the draft permit related to pretreatment-related reporting, with the result that COP's reporting requirements have been reduced. In addition, and as discussed below, EPA eliminated requirements in the draft permit related to the monitoring and reporting of discharges from dewatering wells, with the result that COP's reporting requirements have been further reduced.

1-2 COP is unclear regarding the effect of the permit's SSO reporting requirement on the Sub Regional Operating Group Cities (SROG Cities) that are not parties to the NPDES Permit and the consequence of failed compliance by the SROG Cities with that requirement. COP indicates that all of the SROG Cities already have an obligation to report sanitary sewer overflows (SSOs) that occur within their individual service collection areas. COP points out that it, as well as the other SROG Cities are subject to Aquifer Protection Permits (hereinafter APPs) issued by ADEQ. COP is required by its APP to report all SSOs that occur within its sewage collection system to ADEQ. COP, however, has no control over the other SROG Cities who report SSOs under their individual APPs. COP believes it is unnecessary to impose additional SSO reporting requirements on the SROG Cities in connection with this NPDES Permit. COP has implemented a Capacity, Management, Operation and Maintenance (hereinafter CMOM) plan pursuant to its APP permit through ADEQ, which has been in place since June 2008. COP requests that the permit language in the draft NPDES permit be removed and its current permitting through ADEQ for reporting and handling SSOs remain intact.

EPA agrees that it is unnecessary to impose SSO reporting requirements on other SROG cities with this NPDES Permit, and therefore such requirements are not required in the NPDES permit. However, EPA is in the process of gathering information about SSOs from the other SROG cities via information request letters sent to the other individual SROG cities. If the information provided by the other SROG cities indicates that SSOs are an issue that warrants EPA action, EPA may re-open this permit to do so at that time with appropriate notice and opportunity for comments.

EPA acknowledges and encourages COP's participation in the ADEQ's CMOM program, though it is not a substitute for the direct and specific reporting requirements in the NPDES Permit. The permit therefore requires the COP to report SSOs within its collection system to EPA. As a practical matter information that COP provides ADEQ pursuant to the CMOM program may significantly overlap with the information required under the NPDES permit, and EPA expects that COP will meet many of the requirements of the EPA-issued Federal permit through the CMOM reporting requirements.

1-3 COP has an established Storm Water Pollution Prevention Plan (hereinafter SWPPP). The EPA also recognizes that COP is permitted under the Multi-Sector General Permit (hereinafter MSGP). The current SWPPP for COP meets the requirements under the MSGP for Best Management Practices (hereinafter BMPs) and therefore COP requests that the separate requirement in the draft permit for a

SWPPP be removed, as the EPA has formally recognized the MSGP and the COP treatment plant follows the established SWPPP.

EPA agrees that COP is required to maintain a SWPPP pursuant to the State of Arizona's storm water program. However, EPA understands that COP's storm water discharges are regulated under the Multi-Sector General Permit issued in 2000. See, e.g., ADEQ's description of its storm water program at: <http://www.azdeq.gov/environ/water/permits/msgp.html>. EPA concludes that it is appropriate, and not unduly burdensome, to require in the subject Federal permit that COP comply with the more recently developed provisions of the 2008 MSGP. EPA expects that COP will meet many of the requirements of the EPA-issued permit through the SWPPP and other storm water control measures which COP is already implementing.

1-4 COP requests that the following parameters be sampled at a new location for Outfalls 001 and 002: Carbonaceous Biochemical Oxygen Demand (hereinafter CBOD), Total Suspended Solids (hereinafter TSS), fecal coliforms and settleable solids to be sampled at the upstream side of the primary bisulfate weir. COP also requests that sampling for total residual chlorine (hereinafter TRC) and pH be conducted on the east side of 91st Avenue where the effluent channel goes under 91st Avenue. COP requests that sampling for trace contaminants be conducted on the east side of the effluent channel flood wall on the north side of the back channel. COP requests that the sampling location for trace contaminants be changed due to the influence of fish that have migrated into the portion of the channel just east of 91st Avenue.

The permit provides outfall locations, including latitude and longitude information for each named or numbered outfall including Outfalls 001 and 002. EPA does not believe that it is necessary to provide new sampling locations in the permit for the parameters that COP has requested because pursuant to 40 CFR Section 122.41 as long as the samples and measurements taken for the purpose of monitoring and compliance are taken where the sample is representative of the monitored activity they are covered by the permit.

1-5 The latitude and longitude for Outfalls HDW-1, 004 and 005, are incorrect and need to be changed.

EPA has made the corrections to the permit.

1-6 COP requests clarification whether monitoring for total sulfides is acceptable in lieu of monitoring for hydrogen sulfide.

EPA has revised the permit to clarify that monitoring for either total sulfides or hydrogen sulfide is acceptable. See, Permit, Part I.B, Table 1.

1-7 COP will continue using EPA method 8167 for the determination of TRC at the various points indicated in the draft permit. This method has the potential for false positive results. COP is concerned that a false positive result may indicate the presence of TRC in the FRW Outfall and requests that consideration be given to upstream data that indicates no TRC present.

EPA is aware that there is the potential for false positive results for TRC at the FRW Outfall location, and EPA intends to consider upstream data when determining whether a result for elevated TRC at the FRW Outfall is due to true elevated TRC levels or is a false positive result.

1-8 COP points out that the draft permit requires it to monitor for several parameters for which only drinking water analytical methods are available. While the Arizona Department of Health Services (hereinafter ADHS) has historically approved analytical methods based on promulgation of new rules or on establishment of new permits using the Director's approval section of the laboratory licensure rule, the fact that drinking water methods are being used to comply with Clean Water Act (hereinafter CWA) based permits is extremely problematic for several reasons. In particular the COP is concerned the drinking water methods are not approved in the CFR for use under the CWA, nor have they been validated for use in wastewater matrices, which can result in interference problems. The COP then points out that the ADEQ allows dilution to mitigate matrix interference problems for wastewater permits.

Concerns noted. EPA believes that it is important to monitor these parameters in wastewater and even though only drinking water analytical methods are available for the parameters EPA requires that these methods be used as they are the best currently available methods to monitor these parameters. However, EPA has added a footnote to the parameters in Table 1. indicating that dilution may be used to mitigate matrix interference problems.

1-9 In footnote 13 on page 12 of draft permit, the reference to "footnote 3 below" should be corrected or removed.

EPA agrees, and has removed the reference.

1-10 COP requests that EPA correct or explain the contradiction between language on line 3 and line 4 on page 13 of the draft permit which refers to monitoring requirements at Monitoring Stations FRW-1 and HDW-1. In particular line 3 states that "No limits for the monitoring stations have been set at this time." Line 4 however states that "...if a parameter exceeds the limits described..." The COP requests that the reference to limits be removed and that only monitoring be required for this section of the permit.

EPA agrees that the term "limits" at Draft Permit, page 13, line 4, may cause unnecessary confusion as to the intent of this section of the permit and therefore the term "limit" has

been replaced with the term “concentration” to reflect that permit limits do not apply to this section of the permit.

1-11 COP requests that its in-stream monitoring be conducted at FRW-1. COP believes this would give a representative data of the wetlands impact when compared to Outfalls 001 and 005. The current monitoring locations will be a mixture of water and not effluent from the treatment facility.

The in-stream monitoring locations specified in the permit were chosen to provide data about ambient, in-stream water quality in the Salt River upstream and downstream of the 91st Avenue WWTP’s outfalls. The monitoring point suggested by COP, i.e. at FRW-1, is at the mouth of the flow-regulating wetland. Sampling at that point would not be representative of upstream or downstream conditions. Therefore, EPA has not revised the in-stream monitoring locations as requested.

1-12 COP requests that in-stream monitoring for temperature, pH, dissolved oxygen, and electrical conductivity be conducted using water quality sonide instrumentation, or similar technology over one 24-hour period at the requested FRW-1 monitoring point.

EPA does not object to the use of water quality sonide instrumentation or similar technology for the in-stream monitoring required, provided the monitoring at FRW-1 is done concurrently with monitoring at Outfalls 001 and 005.

1-13 COP requests to monitor for toxicity only at Outfall 001 rather than 001 and 005. The treatment processes at both Outfalls are similar and the City believes that Outfall 001 would be representative of both outfalls.

The discharge from Outfall 001 is subject to a treatment process that is very different from the treatment process for the discharge from Outfall 005. The wastewater discharged from Outfall 005 flows from the WWTP, through the flow-regulating wetlands, and then to the Salt River. The wastewater discharged from Outfall 001 flow directly from the WWTP to the Salt River. By monitoring the toxicity at Outfall 001 and Outfall 005 EPA expects to gain a better understanding of the flow regulating wetland’s impacts on the whole effluent toxicity of the discharge from Outfall 005. If, after several cycles of monitoring at both outfalls, it is shown that the wetland’s impacts on whole effluent toxicity are either negligible or largely positive, the permittee may submit a request to EPA for the permit to be modified accordingly.

1-14 COP proposes to perform the Whole Effluent Toxicity (hereinafter WET) test sampling in conjunction with parameters in Table 1, rather than a split sample.

If COP performs the WET test sampling with samples that are identical or substantially identical to the samples used to conduct testing for other parameters in Table 1., a split sample need not be used. EPA has revised the permit to remove the requirement that a split sample be used.

1-15 COP requests that the requirement to sample the water from dewatering wells be removed because each dewatering well discharges into the treatment process.

EPA has revised the permit to remove the requirement to sample water from the dewatering wells that is not discharged directly into the Salt River.

1-16 COP requests to submit an annual report rather than a semi-annual report as required in the draft permit. The annual report for pre-treatment activities is consistent with existing COP discharge.

EPA has revised the permit to allow annual rather than semi-annual reports for pre-treatment activities.

2 ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) ADEQ commented on the draft permit and fact sheet by letter dated March 17, 2010. EPA summarizes ADEQ's comments as follows:

2-1 The draft permit mis-identified the metals whose effluent limits are hardness dependent.

EPA agrees, and has corrected Table 1, footnote 12..

2-2 Table 1, footnote 4, includes an incorrect reference to WET requirements.

EPA agrees, and has corrected the footnote.

2-3 Footnote 4 to Table 1 should be placed in the frequency column for Chronic Toxicity, replacing Footnote 6 in that column only.

Footnote 4 discusses the frequency with which testing for the three different test species is required to determine compliance with the WET requirements in the permit and appropriately should be in the frequency column. EPA has corrected the table accordingly.

2-4 Table 1, footnote 10, includes an incorrect reference to the Ammonia compliance schedule.

EPA has made the correction.

2-5 Table 1, footnote 13, incorrectly refers to total chromium concentrations.

EPA has made the correction.

2-6 ADEQ provides the correct phone number for the ADEQ Compliance Section Manager.

EPA has updated the permit with the correct phone number.

2-7 AZPDES permits have standard language regarding the type of licensed laboratory that the permittee must use. ADEQ suggests that EPA require that all samples collected for compliance purposes be analyzed by a laboratory licensed by the ADHS for the analysis performed.

The permit is an EPA-issued NPDES Permit and therefore is not subject to Arizona Administrative Code (hereinafter ACC) requirements regarding this particular requirement. EPA has however added language recommending that the permittee use a laboratory licensed by the ADHS Office of Laboratory Licensure and Certification that has demonstrated proficiency for each parameter to be sampled. The discharger is likely to use such labs in any case, because it operates other WWTPs that are permitted by the State of Arizona and therefore must comply with ADEQ's requirements regarding laboratory licensure for samples from those WWTPs.

2-8 ADEQ provides correction to its address in Part II, Section B.9 of the draft permit.

EPA has made the correction.

2-9 ADEQ points out that it requires a 75% dilution instead of a 62.5% in order to confirm no toxic effects because the effluent is usually going into an ephemeral water.

In Part III. D. 5. a. of the permit, the permit requires the effluent to be tested for toxicity at 5 concentrations including at 100% and 62.5% effluent concentration as well as three additional dilutions below 62.5% (e.g., 50%, 25%, and 12.5%) ADEQ states that it requires five dilutions at 100%, 75%, 50%, 25% and 12.5% to confirm no toxic effects. However since the 62.5% dilution is directly associated with the daily maximum of 1.6 TUc, which is the limit established in the permit, by including 62.5% dilution in the dilution series the discharger can use a single test to demonstrate compliance with both monthly and daily maximums. EPA therefore recommends that this dilution be used.

2-10 In reference to Part III, Section D.8. ADEQ requires reporting in IC25 instead of EC25.

EPA acknowledges that ADEQ regulated permits require reporting in IC25 instead of EC25. The permit allows reporting in either IC25 or EC25.

2-11 ADEQ points out that Arizona is a delegated state, and biosolids are regulated under relevant sections of the ACC. ADEQ suggests that the permit should require compliance with these rules as well as 40 CFR 503.

EPA agrees, and has revised the permit to provide that the permittee must meet the requirements of 18 Arizona Administrative Code (AAC), Chapter 9, Article 10.

2-12 ADEQ points out that incineration of biosolids is prohibited in Arizona, and any reference to incineration of biosolids should be removed.

EPA agrees, and has removed the references to incineration of biosolids.

2-13 ADEQ suggests that references to “Class A” biosolids be changed to “Exceptional Quality (EQ)” biosolids as Class A biosolids may not have vector control requirements.

EPA agrees, and has revised the reference as suggested.

2-14 ADEQ states that AZPDES permits usually are for 25 year 24 hour storm events, not for a 100 year storm event as required in the draft permit. ADEQ does not have an objection to the added protection as long as the requirements can be met.

COP has indicated that it can meet this more stringent requirement. The 100-year storm event requirement has been retained in the permit.

2-15 As indicated in 2-8 above ADEQ requires all samples collected for compliance purposes be analyzed by a licensed ADHS laboratory. This applies to biosolids as well.

The permit is an EPA-issued NPDES Permit and therefore is not subject to the requirement referenced by ADEQ. EPA has however added language stating that all biosolid samples collected for compliance purposes must be analyzed by a laboratory licensed by the Arizona Department of Health Services pursuant to relevant sections of the AAC. See, Permit, Part III.E.3.

2-16 In reference to Part III, Section E.3.c of the draft permit ADEQ suggests that the permittee be required to analyze for any pollutant of concern quarterly instead of twice per year.

ADEQ normally requires quarterly analysis of pollutants of concern. EPA agrees that quarterly analysis is appropriate in this case, and has revised the permit accordingly.

2-17 In reference to Part III, Section E.4.a and b of the draft permit ADEQ suggests that the applicable AAC citations be specified in the permit.

The permit has been modified to include the applicable AAC citations.

2-18 In reference to Part III, Section E.4.b. ADEQ points out that ADHS has not adopted the fecal coliform 24-hour hold time for biosolids.

EPA has revised the permit to remove the reference to fecal coliform 24-hour hold time for biosolids.

2-19 In reference to Part III, Section E.7.a(3) ADEQ requests that the permittee be required to notify ADEQ when land applying any biosolids, including composted biosolids. In addition, ADEQ requests that the permittee notify ADEQ and EPA if any biosolids do not meet the pollutant limits for metals.

EPA agrees and has revised the permit accordingly.

3 UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) The USFWS commented on the draft permit and factsheet by e-mails dated March 11 and 12, 2010.

EPA summarizes USFWS's comments as follows:

3-1 USFWS seeks clarification on whether the permit is being issued under a determination of "may affect, not likely to adversely affect" or under a "no effect" determination.

The permit has been issued under a "no effect" determination. The scope of the action reviewed pursuant to this permit renewal is to allow increased flows, from 170 million gallons a day (hereinafter MGD) up to 230 MGD, of secondary treated effluent discharge from the facility. No other action by the discharger or other parties is within the scope of the review conducted by EPA. The review by EPA was based on a literature review and analysis of all reasonably available information about a list of threatened or endangered species provided by, and updated by the USFWS. The review also analyzed the specific impacts of the Tres Rios Project Area and the construction of the flow regulating wetlands (hereinafter FRW) as they were collectively considered by the United States Army Corps of Engineers (hereinafter USACE) and the USFWS in a previous Endangered Species Act (hereinafter ESA) consultation. The findings and agreement of that review was presented in the Biological Assessment prepared by the USACE and a concurrence letter prepared by the USFWS. Additionally the COP and the USFWS also considered the specific impact of the Tres Rios Project Area and its continued operation and maintenance over a period of time. That agreement can be found in the "Safe Harbor Agreement with the City of Phoenix for Voluntary Enhancement/Restoration Activities Benefiting the Yuma Clapper Rail, Southwestern Willow Flycatcher, Bald Eagle, Brown Pelican, Gila Topminnow, and Desert Pupfish at the Tres Rios Project Area, Maricopa County, Arizona." EPA reviewed both these documents and concluded that there would be "no effect" beyond the determinations and findings made pursuant to the previous ESA consultation, and therefore is issuing this permit with a "no effect" determination.

3-2 The USFWS would like to point out previous work done below the 91st Avenue WWTP. The USFWS and United States Geological Survey (hereinafter USGS) collected fish for the Biomonitoring of Environmental Status and Trends (hereinafter BEST) Program and the greatest concentrations of organochlorine

pesticides were detected in fish there compared with 13 other sampling locations. The USFWS would also like to bring attention to an EPA funded study regarding Polybrominated diphenylethers (hereinafter PBDEs) below the 91st Avenue WWTP comparing levels of PBDEs in the desert southwest.

EPA thanks the USFWS for providing these studies, and has reviewed them and included them in the administrative record for this permit renewal. Agricultural activities occur in the area around the discharge outfalls for the 91st Avenue WWTP, with runoff from such activities entering the Salt River independently of the flows from the 91st Avenue WWTP outfalls. This runoff is potentially a significant source of pesticides which may find their way into the Salt River. In order to limit the discharge of pesticides in the treated effluent from the 91st Avenue WWTP, the permit specifically requires COP to meet effluent limits for Chlordane, Toxaphene, and DDT Metabolites, as well as Endosulfan and Endrin. The permit also requires the COP to regularly monitor for and report on presence of other pesticides and herbicides such as Aldrin, Dalapon, Diazinon, Dinoseb, Diquat, Oxamyl, and Pichloram.

3-3 The USFWS would like to inform EPA that a bald eagle pair are nesting near the 91st Avenue WWTP. This is the first year they were seen there.

The Endangered Species Act (hereinafter ESA) Section 7 consultation conducted previously by the USACE for the construction of the Tres Rios Area reviewed impacts to several species, including the Bald Eagle. The USFWS concurred with the USACE's Biological Assessment and concluded that "Based on the implementation of the mitigation, conservation, monitoring, and adaptive management measures...we [USFWS] concur that the Tres Rios Restoration Project including initial construction and O&M, may affect but is not likely to adversely affect...[the]bald eagle." The presence of the nesting bald eagle pair is consistent with this finding. Therefore EPA's finding of "no effect" beyond the determinations and findings made pursuant to the previous ESA Section 7 consultation on the Tres Rios Restoration Project is appropriate.

3-4 On May 1, 2008 the USFWS issued a 12-month finding where it was determined that the bald eagle in the Sonoran Desert is not a listable entity. This 12-month finding was in response to an injunction by the U.S. District Court for the District of Arizona enjoining the USFWS' application of the final delisting rule for bald eagles to the Sonoran Desert population pending the outcome of USFWS' status review and 12-month petition finding. The USFWS intends to publish a separate notice to remove this population from the list of Threatened and Endangered Wildlife, but only after the U.S. District Court for the District of Arizona, has confirmed that its injunction has been dissolved. Until that time, the Sonoran Desert Area population of the bald eagle will remain protected by the Endangered Species Act, though that could change at any time.

Comment noted.