ATTACHMENT C

RESPONSIVENESS SUMMARY
FOR THE FOLLOWING DRAFT PERMITS

Guánica WWTP (PR0020486)
Mayagüez WWTP (PR0023795)

On **January 19 and January 25, 2024**, the United States Environmental Protection Agency (EPA) issued draft National Pollutant Discharge Elimination System (NPDES) permits for **Guánica Wastewater Treatment Plants (WWTP)** and **Mayagüez RWWTP,** respectively, owned by the Puerto Rico Aqueduct and Sewer Authority (PRASA).

According to 40 Code of Federal Regulations (CFR) §124.17, at the time that any final permit decision is issued under §124.15, EPA shall issue a response to comments. This response shall (1) specify which provisions, if any, of the draft permit have been changed in the final permit decision and the reasons for the change; and (2) briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any hearing.

Comments on behalf of the following commenters were received:

Puerto Rico Aqueduct and Sewer Authority (PRASA)
PO Box 7066
Barrio Obrero Station
San Juan, PR 00916

and

Jacobs on behalf of PRASA
Metro Office Park
17 street 2, suite 400
Guaynabo, PR 00968.

All the comments received have been reviewed and considered in this final permit decision. A summary of and response to the comments received follows:

A. GENERAL COMMENT

In its comment letter PRASA has raised a number of issues, many of which address inclusion in the permit of conditions contained in the Water Quality Certificate (WQC) issued by DNER.

Response 1:

EPA is providing a generalized response to PRASA's comments which relate to requirements in DNER's WQCs.

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires that there be achieved effluent limitations necessary to assure that a discharge will meet Water Quality Standards (WQS) of the applicable State and Federal laws and regulations where those effluent limitations are more stringent than the technology-

based effluent limitations required by Section 301(b)(1)(A) of the CWA. Section 401(a)(1) of the CWA requires that the State certify that the discharge will comply with the applicable provisions of sections 301, 302, 303, 306 and 307 of the CWA. Pursuant to Section 401(d) of the CWA any certification shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal permit will comply with any applicable effluent limitations and other limitations under section 301 or 302 of the CWA, and with any other appropriate requirement of State law set forth in such certification. Also, 40 C.F.R. §122.44(d) requires that each NPDES permit shall include requirements which conform to the conditions of a State Certification under Section 401 of the CWA that meets the requirements of 40 C.F.R. §124.53. Similarly, 40 C.F.R. §124.55 requires that no final NPDES permit shall be issued unless the final permit incorporates the requirements specified in the certification under §124.53. Concerning the certification requirements in 40 C.F.R. §124.53(e)(1), they specify that all Section 401(a)(1) State certifications must contain conditions which are necessary to assure compliance with the applicable provisions of CWA sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law.

DNER issued final WQCs certifying that pursuant to Section 401(a)(1) of the CWA, after due consideration of the applicable provisions established under Sections 208(e), 301, 302, 303, 304(e), 306 and 307 of the CWA concerning water quality requirements, there is reasonable assurance that the discharge will not cause violations to the applicable WQSs, provided that the effluent limitations set forth in the WQCs are met by the above facility.

The effluent limitations (where more stringent than technology-based effluent limitations), monitoring requirements and other appropriate requirements of State law (including footnotes, Special Conditions, etc.) specified in the final WQC issued by the DNER were incorporated by EPA into the NPDES permit as required by Section 301(b)(1)(C) and 401(d) of the CWA and the applicable regulations. Therefore, concerns and comments regarding the WQC must be directed to DNER or to the Superior Court.

B. Guánica WWTP (PR0020486) COMMENTS

1) Comment: Final Effluent Limitations --- Outfall Number 001 Effluent Limitations Table "Effluent TSS": PRASA does not understand why this parameter is not regulated in the mass-based limitation corresponding to the kg/day limits. Dashes (--) appear in the "Average monthly" & "Average weekly" columns, which can be interpreted that it is not necessary to monitor this parameter in these instances. Also, the concentration limitation appears as just "Monitoring". Finally, the frequency in the percent limitation must be corrected to **1/Month**, like the Effluent BOD, 5-day limitation.

Response: This was a typographical error; the referenced parameter has now an effluent limitation corresponding to the kg/day limit, and the frequency was revise to read **1/Month**.

2) Comment: Final Effluent Limitations --- Outfall Number 001 Effluent Limitations Table "Taste or Odor Producing Substances": This parameter must be deleted from the "Effluent Limitations Table" since it appears in the following section "**B. Narrative Limitations**". Also, it is required to "Monitor" this parameter, but EPA must specify or clarify the methods to be used.

Response: This was a typographical error; the referenced narrative has been removed from the Effluent Limitations Table A1, as it was already included in section B. Narrative Limitations. As established in the final permit this Narrative Limitation is from DNER, but it is based on CWA Section 304(a), National Recommended Water Quality Criteria – Organoleptic Effects (e.g. Taste and Odor). More information can be found in: https://www.epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects .

C. Mayagüez RWWTP (PR0023795) COMMENTS

1) Comment 1: Part I.D. "Mixing Zone/Dilution Allowance": This references "Mixing Zone/Dilution Allowance" and notes that the PRDNER has approved an interim mixing zone (dilution allowance) for this discharge. The actual dilution credit is not stated in the draft permit. Should PRASA assume the mixing zone application (MZA) is the appropriate reference, or will EPA state the dilution credit in the final permit?

Response: This was a typographical error, now the Background Section of the Final Permit includes information on the Mixing Zone approval for Mayagüez WWTP at 116:1.

2) Comment 2: Part II.A. Table B.4 (Effluent limitations) Enterococci: This table presents numerical limitations for enterococci. PRASA requests that both limitations for enterococci be "Monitor Only" consistent with the compliance plan in Part IV.B.t of the draft renewal permit and Table A-4 of the final WQC.

Response: This was a typographical error. The table was revised.

3) Comment 3: Part II.B.5, Temperature, Color and Toxic Substances: This provides narrative limitations for temperature, color, and toxic substances. PRASA assumes that these limitations apply to receiving water conditions at or beyond the mixing zone boundaries and requests that.

Response: Narrative limitation for temperature was eliminated from page 8 of 14 of the final permits and is included in Part II EFFLUENT LIMITATIONS AND MONITOIRNG REQUIRMENTS, Section B or the final permit. This limitation applies to discharge point 001.

4) Comment 4: Part IV.B.1.s.1 Outfall: This describes the outfall as previously configured, prior to Hurricane María, as well as the mixing zone sampling stations based on the prior discharge location. The existing outfall was damaged beyond repair by Hurricane María. PRASA has initiated conceptual design of its replacement, which will discharge in the same area through a high-rate diffuser. However, the actual discharge point and description of the outfall pipeline and terminal diffuser will be somewhat different than that described in the draft NPDES permit. The new diffuser will be designed in accordance with DNER criteria and will meet or exceed the dilution achieved by the currently damaged diffuser.

Response: EPA understands the impact of Hurricane Maria may have taken on the previously describe outfall for Mayagüez RWWTP, but we need to issue the permit with the information provided and as DNER approved it.

5) Comment 5: Part IV.B.1.s.11 Special Condition: This requires that PRASA inspect the discharge system at least once a year to determine if repair, replacement, etc. is required, and that an inspection report be submitted to EPA and DNER no later than 60 days after the performance of the inspection. The final WQC (Special Condition 19.r) requires inspection once during the third year of the permit. PRASA requests that the final NPDES permit for discharge system inspection and report submittal align with the final WQC schedule (that is, once during the third year of the permit).

Response: This was a typographical error. The Special Condition was revised.

6) Comment 6: Part IV.B.2.a.1, Toxicity Tests Condition: This requires that chronic toxicity tests be conducted annually on the discharge to determine compliance with effluent limitations and whether accelerated testing and toxicity reduction activities should be initiated. PRASA notes that the effluent limitation is Monitor Only; therefore, there is no requirement to comply with numerical limitations. Further,

neither the draft NPDES permit nor the final WQC references dilution credit. Thus, it is unclear as to what might constitute a violation or how to define a trigger point. PRASA requests that EPA set dilutions for WET testing in the final permit based on the critical initial dilution (CID) developed in the MZA.

Response: The Whole Effluent Toxicity testing was required in the Water Quality Certificate as a condition of the Mixing Zone. EPA permit language requires development of a Toxicity Reduction Evaluation (TRE) plan and accelerated testing if an effluent limitation or trigger is exceeded. In this case, it was determined that past results do not indicate reasonable potential to cause or contribute to a violation of the water quality standard for toxicity, so no numeric limitation was included. The trigger in this case is based on dilution and would be any acute result that indicates greater than 34.8 acute toxic units (TUa) or greater than 116 Chronic Toxic Units (TUc). These are not effluent limitations. Failure to conduct the required monitoring would be a permit violation. As requested, EPA has added Action Levels of 34.8 TUa and 116 TUc to clarify the threshold for TRE and accelerated monitoring.

7) Comment 7: The following typographical errors were noted:

a. Part II. Effluent Limitations and Monitoring Requirements: The page numbering on the bottom of the first 7 pages of this section refers to page X of 14, whereas there are 24 pages in this section of the draft permit.
b. Part IV.B.1.s.14 (page 14 of 24): DENER should be DNER.
c. Whole Effluent Toxicity (WET) Testing (page 18 of 24): The numbering is incorrect beginning with 2.a.2.ii.

Response: These were typographical errors, which were revise in the final permit were revised.

D. COMMENTS ON THE MAYAGÜEZ RWWTP FEBRUARY 2024 OCEAN DISCHARGE CRITERIA (ODC) EVALUATION

***1) Comment*:** The evaluation did not appear to include the previous 403(c) studies done for the discharge in 2007 or the 2007/2008 Mixing Zone Validation Studies, although EPA may have considered these studies outdated.

***Response*:** The previous 403(c) studies done for the discharge in 2007, and the 2007/2008 Mixing Zone Validation Studies were considered to be outdated for the purpose of this evaluation. These studies do not represent current conditions due to the possibility of natural, climate-related, and other changes that may have occurred in the receiving environment since the studies were conducted.

***2) Comment*:** EPA evaluation considered only the effluent Discharge Monitoring Reports (DMRs) for December 2016 through November 2022. Note that this was referred to as the “previous permit period,” which was December 2016 through November 2021 and which was administratively extended to the present; therefore, it is actually the current permit period.

***Response*:** This was a typographical error; “Previous permit period” has been changed to “current permit term” and the administrative extension has been noted.

3***) Comment*:** Most of the exceedances that EPA noted were minor and infrequent, except for chlorine and enterococci.

***Response*:** EPA agrees that most of the exceedances were minor and infrequent, with the exception of chlorine and enterococci. Nevertheless, EPA has listed all exceedances to consider all available data in the context of the ocean discharge criteria.

***3)a. Comment (regarding turbidity)*:** The evaluation is accurate; however, the two exceedances are considered statistical outlier (more than three standard deviations from the mean). Further, the final WQC issued by the Puerto Rico DNER on September 28, 2023, established an effluent limitation of 26 nephelometric turbidity units (NTU), and this was carried into the draft renewal NPDES permit. Therefore, it can be concluded that the turbidity exceedances noted by EPA will not occur under the new permit limitations nor will the observed turbidity levels in the discharged effluent cause "irreparable harm" to the receiving waters.

***Response*:** EPA recognizes that the exceedances are statistical outliers but still notes that exceedances occurred during the permit term. EPA agrees that the identified concentrations are below the permit limit that will be required for the next permit term.

***3)b. Comment (regarding total suspended solids)*:** The evaluation is accurate; however, the single exceedance is considered a statistical outlier. The next highest value is 19 milligrams per liter (mg/L). There were no exceedances of the weekly average or the percent removal. It can be reasonably concluded that neither the single TSS exceedance noted by EPA nor the observed TSS concentrations in the discharged effluent will cause "irreparable harm" to the receiving waters.

***Response*:** EPA recognizes that the exceedance is a statistical outlier but still notes that an exceedance occurred.

3*)c. Comment (regarding total nitrogen)*: The evaluation is accurate; however, the single exceedance is considered a statistical outlier. Note also that the current permit limitation is stated in terms of total dissolved inorganic nitrogen (DIN = nitrate + nitrite + ammonia) rather than total nitrogen. The draft renewal permit limitation is for total nitrogen (TN = nitrate + nitrite + TKN), with an effluent limitation of 36,430 micrograms per liter (µg/L). It is noted that there is also an interim limitation in the current Consent Decree for TN of 36,430 µg/L. Review of the data for the time period used by EPA indicates there were no exceedances of TN. It can be reasonably concluded that neither the single DIN exceedance noted by EPA nor the observed TN concentrations in the discharged effluent will cause "irreparable harm" to the receiving waters.

***Response*:** The constituent was corrected. EPA recognizes that the single exceedance of the permit limit for total dissolved inorganic nitrogen (NO_2+NO_3+NH_3) is a statistical outlier but still notes that an exceedance occurred. EPA agrees that the interim limit for total nitrogen (NO_2+NO_3+TKN) was not exceeded.

3*)d. Comment (regarding sulfide)*: The evaluation is accurate; however, the single exceedance is considered a statistical outlier. Based on the remainder of the record, it is likely an incorrect entry in the database (note that it was the first entry in the database for the period considered). The next highest value is 0.0027 mg/L. A limitation for sulfide is not listed in the draft renewal permit; thus, the parameter was apparently considered unlikely to exceed the Puerto Rico Water Quality Standards Regulation (PRWQSR) criterion. It can be reasonably concluded that neither the single H_2S exceedance noted by EPA nor the observed H_2S in the discharged effluent will cause "irreparable harm" to the receiving waters.

***Response*:** EPA recognizes that the exceedance is a statistical outlier but still notes that an exceedance occurred. EPA also recognizes that a data entry error may have occurred, and a note has been added.

3*)e. Comment (regarding five-day biochemical oxygen demand)*: The evaluation is accurate; however, the lowest value (71%) was considered a statistical outlier. All three values were recorded in sequential months, indicating a potential short-term plant upset that has since been corrected. The average percent removal over the period considered by EPA was 96%, indicating very good performance overall. It can be reasonably concluded that the three BOD_5 exceedances noted by EPA are not expected to recur in the discharged effluent and that they will not have caused "irreparable harm" to the receiving waters.

***Response*:** EPA recognizes that one of the exceedances is a statistical outlier but still notes that the exceedance occurred. EPA also recognizes that a short-term plant upset may have occurred, and a note has been added.

3)f. *Comment (regarding free cyanide)*: The evaluation is partially accurate; there were four exceedances in the period referenced by EPA. In addition to those listed by EPA, there were exceedances of 14.2 µg/L in June 2022 and 31.4 µg/L in October 2022. Two of the exceedances were considered statistical outliers, and all four are well above the average of 3.93 µg/L (average including all values and outliers). The analysis of free cyanide is difficult and, based on experience with analysis of PRASA effluent streams, the likely cause of the exceedances is analytical inaccuracies rather than actual exceedances. It is further noted that the renewal permit effluent limitation for free cyanide (47.28 µg/L) is well above the exceedances noted. It can be reasonably concluded that neither the free cyanide exceedances noted by EPA nor the free cyanide concentrations observed in the discharged effluent will cause "irreparable harm" to the receiving waters.

***Response*:** The list was corrected. EPA recognizes that two of the exceedances are statistical outliers but still notes that the exceedances occurred. EPA also recognizes that analytical inaccuracies may have occurred, and a note has been added. EPA recommends checking for the availability of a sufficiently sensitive method to analyze free cyanide in order to ensure that compliance can be demonstrated. EPA agrees that the identified concentrations are below the permit limit that will be required for the next permit term.

3*)g. Comment (regarding Coliform)*: The evaluation is accurate; however, coliform is no longer regulated in the Class SB waters where the discharge occurs and is not included in the proposed draft NPDES permit. It is further noted that the two exceedances are from a total record of 85 sets of measurements of five sequential samples. It can be reasonably concluded that the coliform exceedances noted by EPA will not have caused "irreparable harm" to the receiving waters.

***Response*:** EPA recognizes that a limit will not be required for Coliform during the next permit term.

3*)h. Comment (regarding Enterococci)*: Review of the laboratory records indicates that there were 17 reported exceedances of the geometric mean limitation and 8 reported exceedances of the maximum limitation. However, in some cases, sampling was done twice per month, and all samples in that month were often, but not always, used in combination to assess compliance as reported in the DMRs. In the DMR record, there are nine reported exceedances. In addition to those indicated by EPA, values of 80 colonies/100 milliliters (ml), 51 colonies/ 100 ml, and 50 colonies/100 ml were reported in October 2017, March 2018, and April 2018, respectively. Compliance with this parameter is an operational issue that requires balancing disinfectant (chlorine) concentrations to comply with enterococci limitations. Based on experience with other PRASA wastewater treatment plants, it can be reasonably concluded that the enterococci exceedances can be controlled and will not cause "irreparable harm" to the receiving waters once the in-plant operational issues are addressed. Note that the draft permit includes a compliance

plan for enterococci with an interim limitation of “monitor only” for the first 3 years of the permit (refer to page 15 of 24 of the draft permit).

***Response*:** The list has been corrected.

***3)i. Comment (regarding chlorine)*:** EPA is using an incorrect limitation for its analysis. Residual chlorine has an interim limitation in the current permit of 500 µg/L, which was for the first 3 years of the permit and which was extended on request to DNER for the following 2 years. This parameter also has an interim limitation under the current Consent Decree of 500 µg/L until the permit is reissued. Therefore, EPA is incorrect in assessing compliance based on the current PRWQSR criterion. However, it is recognized that the interim limitation has been regularly exceeded (24 times during the period being considered). The interim limitation of 500 mg/L has been achieved for the most recent 9 months, through November of 2023. The draft renewal permit includes residual chlorine as a compliance plan parameter, with an interim limitation of 500 µg/L for the first 3 years of the permit. PRASA has conducted receiving water toxicity studies that indicate no acute or chronic toxicity in the vicinity of discharges from facilities using chlorine as a disinfectant. A literature search was also conducted investigating toxicity of residual chlorine discharged to marine waters. The results indicated that residual chlorine rapidly degrades in the receiving water and does not result in toxicity.4 It can be reasonably concluded that residual chlorine will not cause “irreparable harm” to the receiving waters and that compliance with interim effluent limitations can be achieved once the in-plant operational issues are addressed. Further, mixing zone studies around other PRASA wastewater treatment plants discharging to marine waters have shown that the PRWQSR receiving water criterion for residual chlorine (0.0075 mg/L) can be met at the edge of a permitted mixing zone at the concentration allowed as an interim limitation in the renewal permit.

***Response*:** The limit has been corrected**.**

OCEAN DISCHARGE MONITORING PROGRAM

4**) *Comment*:** The EPA reference to “end-of-permit year 2027” is unclear. It is anticipated that the Effective Date of Permit for the renewal permit will be before the end of calendar year 2024 and that the permit will be in effect for 5 years from that date unless it is administratively extended.

***Response*:** The incorrect end-of-permit year has been removed.

5**) *Comment*:** In any event, PRASA believes that multi-year monitoring is not appropriate when the previous ODC monitoring done for this discharge indicated no harm to the marine environment. PRASA believes that any new studies should terminate after 1 year, with sampling restricted to one wet season event and one dry season event. This would be consistent with the previous ODC study requirements imposed by EPA. Further, it is noted that the discharge area does not contain corals or seagrasses, as demonstrated by searches for such communities during the prior ODC studies.

***Response*:** EPA agrees that one year of study with sampling restricted to one wet season event and one dry season event will be sufficient as long as comprehensive sampling is performed during each event, data with sufficient data quality is produced, and results demonstrate no harm to the marine environment. Sufficient monitoring should include a focus on the coral community due to the potential interaction of climate-related stressors. EPA notes that coral presence was identified during the coral search performed in 2007 at approximate distances of 450-950 meters from the outfall diffuser. The 2006 QAAP required the pursuit of a series of studies if coral reef or seagrass communities were found within 100 meters in any direction of the outfall diffuser. Because the identified corals were located more than 100 meters from

the outfall diffuser, further studies were not pursued. These sites should be revisited along with some additional nearby locations and a reference location, informed by available data, for presence/absence and the distance from the outfall diffuser at which to pursue further studies if coral is present should be reevaluated.