CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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TENTATIVE

CEASE AND DESIST ORDER NO. R4-2017-YYYY
FILE NO. 06-189

REQUIRING CITY OF SANTA PAULA TO UNDERTAKE ACTIONS TOWARD COMPLIANCE WITH CHLORIDE REQUIREMENTS IN WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM SANTA PAULA WATER RECYCLING FACILITY

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. The City of Santa Paula (City or Discharger) is the owner of the Santa Paula Water Recycling Facility (SPWRF), a Publicly-Owned Treatment Works (POTW), located at 920 Corporation Street in Santa Paula, California. The SPWRF is operated by American Water and discharges tertiary-treated wastewater to groundwater via three percolation ponds adjacent to the facility.

2. The SPWRF treats wastewater generated within the City and is designed for a flow of 4.2 million gallons per day (MGD). Based on the discharge records between July 2010 and June 2017, the effluent discharged from the SPWRF ranged between 1.36 and 2.44 MGD, with an average of 1.86 MGD.

3. The wastewater treatment process at the SPWRF consists of preliminary treatment (coarse and fine mechanical screening and grit removal at the Influent Lift Station), flow equalization (two flow equalization tanks), secondary treatment (three aeration tanks with nitrification and denitrification activated sludge), tertiary treatment (six biomembrane reactors, providing further carbonaceous oxidation, nitrification/denitrification and solids removal to meet the limits of the WDRs), and disinfection (UV). Treated and disinfected effluent is discharged to three percolation ponds. The returned activated sludge is treated at two of three aerobic digesters (one aerobic digester is for backup) after being thickened at two thickeners. The solids generated at the aerobic digesters receive final dewatering at the screw dewatering press. Final solids meeting the United States Environmental Protection agency (USEPA) Class B reuse standards are sent to the Ventura County Regional Bio-Solids facility.

4. The SPWRF is able to meet all final effluent limitations in the City's waste discharge requirements (WDRs) except for chloride. This is due to the SPWRF not being designed to remove chloride. Since the SPWRF has no ability to remove chloride, chloride is passed through to the effluent and then groundwater via discharges to the percolation pond. Non-compliance with chloride effluent and groundwater limitations is the most problematic issue with the SPWRF. Table 1 summarizes the chloride concentrations of effluent discharged from the SPWRF.

Table 1 – Annual Average Chloride Concentrations[1] (milligrams/Liter, mg/L) in SPWRF Effluent	
Period	**Effluent of SPWRF**
2010	156
2011	153
2012	149
2013	155
2014	145
2015	134
2016	137
2017 (Jan – Jun)	141
Range[2]	**144.4 ± 8.2**

Table Notes:

[1] All data collected from grab samples.

[2] Data range is based on one standard deviation.

A. The monthly effluent chloride concentration ranged from 125 to 166 mg/L between July 2010 and June 2017, which continuously exceeded the chloride effluent limitation of 110 mg/L. This has led to an escalation of the chloride concentrations in groundwater below and surrounding the three percolation ponds with a range of 121 to 168 mg/L and an average of 140 mg/L since July 2010. The groundwater and effluent data indicate that the chloride discharges from the SPWRF have impacted the receiving groundwater quality in the vicinity of the SPWRF.

B. The high chloride concentrations in the effluent were believed to be associated with the approximately 1,250 Self-Regenerating Water Softeners (SRWS) installed in the households of the City. These SRWS generate brine containing high chloride concentrations, which are discharged to sewers and delivered to the SPWRF as influent.

C. According to the effluent data collected between October 2015 and June 2017, a total of 2,479 pounds/day (lbs/day) of chloride, based on the effluent flow rate of 2.2 MGD [95 percentile of monthly average effluent flows, resulting from data recorded between October 2015 (beginning of the SRWS Buyback Program) and June 2017] and a chloride effluent concentration of 135 mg/L, were discharged to the groundwater underlying the percolation pond.

5. The Regional Board issued three Notices of Violation (NOVs), described below, to the City for exceedances of the chloride effluent and groundwater limitations in Order No. R4-2007-0028. These NOVs required the City to implement corrective and preventative actions to bring the City's discharge into full compliance with chloride effluent limitations and receiving water requirements specified in Order No. R4-2007-0028, previously adopted by this Regional Board on May 3, 2007.

A. The November 3, 2011 NOV summarized chloride limit exceedances between the second quarter of 2010 and the third quarter of 2011. These violations included 15 exceedances of chloride and one exceedance of total nitrogen, di(2-ethyl)phthalate, and dioxin in effluent; and 1 exceedance of sulfate, 5 exceedances of chromium, 10 exceedances of aluminum, 1 exceedance of nickel and boron and nitrate plus nitrite, and 26 chloride exceedances of groundwater limitations.

B. The December 30, 2014 NOV summarized 36 and 88 chloride exceedances in effluent and groundwater, respectively, between the fourth quarter of 2011 and the third quarter of 2014.

C. The March 20, 2017 NOV summarized 27 and 50 chloride exceedances in effluent and groundwater, respectively, between the fourth quarter of 2011 and the fourth quarter of 2016.

6. The City's efforts to reduce the chloride concentration in the influent to the SPWRF are summarized below:

A. The City identified that the influent to the SPWRF contains brine with high chloride concentration from Self-Regenerating Water Softeners (SRWS). There are approximately 1,250 residential SRWS used in the City.

B. On September 5, 2006, the City established Ordinance No. 1160 prohibiting the installation or replacement of residential SRWS.

C. On June 22, 2015, the City adopted Resolution No. 6918 approving a SRWS Buyback and Incentive Program. This program offers a financial incentive to residents to voluntarily remove SRWS. A Kick-Off SRWS Buyback event was held on September 19, 2015. The removal of SRWS under this program began in October 2015. As of June 30, 2017, 244 of the approximately 1,250 SRWS have been removed. Table 2 summarizes the progress of SRWS removal by comparing the monthly average chloride concentration in the effluent compared to the accumulated number of SRWS removed. A reliable decreasing trend for chloride has not been observed in the effluent.

Table 2 – Monthly Average Chloride Concentration[1] in Effluent Compared to Accumulated Number of SRWS Removed

Period	Accumulated Number of SRWS Removed	Effluent (mg/L)
October 2015	23	132
November 2015	46	133
December 2015	58	129
January 2016	74	146
February 2016	83	139
March 2016	96	138
April 2016	106	137

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Table 2 – Monthly Average Chloride Concentration[1] in Effluent Compared to Accumulated Number of SRWS Removed		
Period	**Accumulated Number of SRWS Removed**	**Effluent (mg/L)**
May 2016	115	138
June 2016	122	138
July 2016	125	134
August 2016	135	125
September 2016	158	133
October 2016	166	142
November 2016	196	140
December 2016	200	141
January 2017	220	146
February 2017	228	157
March 2017	233	143
April 2017	236	131
May 2017	243	134
June 2017	244	134
Monthly Range[2]	**---**	**137.6 ± 7.0**

Table Notes:

[1]. All data collected from grab samples.

[2]. Data range is based on one standard deviation.

7. To address the City's chloride exceedances in the effluent and groundwater, the Regional Board required the City to submit a Chloride Reduction Workplan. Board staff also met with the City on several occasions to discuss the City's chloride exceedances. A summary of these events are as follows:

   A. On December 19, 2013 and May 11, 2015, the Regional Board met with the City to discuss its Chloride Reduction Workplan. The City's Chloride Reduction Workplan includes the following tasks:

      i. Prohibit SRWS installations or replacements;

      ii. Implement a SRWS Buyback Program;

      iii. Implement a Recycled Water Program to reduce effluent discharged to the three percolation ponds; and

      iv. Implement Supplemental Strategies, if needed, including advanced treatment (e.g. reverse osmosis) and disposal of brine.

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B. On January 28, 2016, Regional Board staff discussed with the City the necessary actions to reduce the chloride concentration in the effluent, which included the SRWS Buyback Program. The City also proposed to explore application of recycled water at locations other than identified groundwater hot spots and to conduct groundwater impact investigation and remediation activities. The City was notified that detailed schedules and milestones were required for all actions.

C. On March 8, 2016 and September 14, 2016, the City met with Regional Board staff to provide an update of its SRWS Buyback Program efforts. The City noted that five City employees were deployed to conduct door-to-door visits to encourage participation in the SRWS Buyback Program among 7,500 dwellings within the City.

D. On October 31, 2016, the City met with Regional Board staff to provide an update on the following topics:

i. Status of implementing the chloride compliance strategy and potential for reduction of effluent discharged to the three percolation ponds via the City's Recycled Water Program;

ii. Assimilative capacities for chloride at different groundwater locations beneath the City based on the Salt and Nutrient Management Plan for the Lower Santa Clara River Basin; and

iii. Groundwater hot spots (i.e., chloride impaired areas with no assimilative capacity for recycled water applications) in the City.

8. On July 9, 2015, the Regional Board adopted Resolution No. R15-007, an amendment to the Basin Plan that incorporated stakeholder-developed groundwater quality management plan for salts and nutrients in the Lower Santa Clara River groundwater basins. Groundwater quality management measures were developed by stakeholders as part of the Salt and Nutrient Management Plan (SNMP) for the Lower Santa Clara River Basins in Ventura County. Such plans are a requirement of the State Water Resources Control Board's (State Water Board) Recycled Water Policy and are intended to maintain high quality waters and to protect the beneficial uses of groundwater while promoting recycled water use throughout the state. The SNMP utilized a groundwater quality model that characterized the water quality in the Santa Paula Basin and examined the degree of impairment to water quality in the Basin. The model shows there is available assimilative capacity for salts and nutrients, including chloride, in most areas of the Santa Paula Basin to allow for recycled water projects consistent with the Recycled Water Policy. As described below, the City is planning to recycle effluent that is currently discharged to the percolation pond.

9. The City developed and utilized a simple spreadsheet mixing model, the *Groundwater Chloride Transportation Model* (Chloride Model), to analyze the effect of future effluent discharges on groundwater over time at various distances from the percolation pond. The City's modelling assumed some degradation of groundwater with respect to chloride within a limited range of mixing zone radius below and adjacent to the SPWRF, measured from the boundaries of the percolation pond. This distance is the shortest where SPWRF effluent disposed to the percolation pond can mix with groundwater and result in receiving water chloride concentrations of 110 mg/L or less. Groundwater within the mixing zone will exceed the chloride GWQO of 110 mg/L. Mass-volume balance calculations along with

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Darcy's Law are used to account for travel in porous media. The mixing model simulates instantaneous and complete mixing of ambient groundwater with effluent seepage reaching the water table from the percolation pond using SPWRF data for flow and chloride effluent concentrations. It was conservatively assumed that any effluent discharge to the percolation pond would infiltrate into the underlying aquifer and not be diverted for other uses. Groundwater parameters within the spreadsheet model were selected based on recent monitoring reports in order to be representative of average conditions within the vicinity of the SPWRF. The mixing model assumes an initial volume of groundwater underlying the ponds possessing background chloride concentrations of 136 mg/L. The volume of the existing groundwater body is calculated as the product of the radius of interest (150-1200 feet), an assumed saturated thickness of potentially impacted groundwater (50 feet), and the porosity of the underlying sediments (assumed to be 0.2) based on the low end of published literature values for a sand and gravel mixture. Based on the regional groundwater quality data documented in the SNMP, regional groundwater inflow is assumed to have a chloride concentration of 91 mg/L.

On December 14, 2016, Regional Board staff met with the City to discuss the results of the Chloride Model, which evaluated compliance with the groundwater quality objectives beneath and adjacent to the three percolation ponds, for various discharge scenarios. Based on Regional Board staff's comments, the City revised the Chloride Model, which was discussed in meetings held on February 8, 2017, February 17, 2017, July 24, 2017, and August 7, 2017.

10. The revised Chloride Model simulated chloride concentrations in the receiving groundwater resulting from chloride mass loading reduction in the three percolation ponds. The Model predicted GWQOs being achieved at 150 feet away from the percolation pond, a sufficient distance to allow mixing in the groundwater, when the total mass of chloride in the effluent is significantly reduced. The initial mass of chloride is calculated based on the average chloride effluent concentration of 135 mg/L and the discharge rate of 2.2 MGD, which results in 2,479 pounds total mass of chloride discharged per day. The reduction of chloride mass discharged to the percolation pond can be achieved by improving the effluent chloride concentration (e.g., source control or treatment), or diverting a significant amount of flow for recycled water uses, or a combination of both in order to protect water supply Wells 03N21W21G01S, 03N21W21G02S, and, 03N21W21G03S, approximately 150, 150, and 300 feet, respectively, away from percolation pond. Water produced from these wells is primary for agricultural irrigation use.

    To achieve the chloride GWQO of 110 mg/L in groundwater at least 150 feet away from the percolation pond, the City provided various effluent chloride concentration and allowable flow combinations (Table 3). Based on the hydrology and hydrogeologic condition at the SPWRF percolation ponds area, the higher the concentration of chloride in the effluent, the less volume and mass can be discharged to percolation ponds to comply with the chloride GWQO in the Basin Plan. For example, if the chloride concentration in the effluent is 135 mg/L, only 0.07 MGD, which is equivalent to 79 pounds of chloride per day, could be discharged to the percolation pond to achieve the chloride GWQO of 110 mg/L at 150 feet away from the percolation pond. If the chloride concentration in the effluent is reduced to 120 mg/L, then more flow (0.2 MGD) can be discharged to the percolation pond and achieve the chloride GWQO 150 feet away from the percolation pond.

Table 3 – Groundwater Chloride Transportation Model - Continuous Discharge			
Chloride Effluent Concentration	**Flow to Percolation Ponds (% of 2.2 MGD)**	**Allowable Effluent Mass Load to Groundwater (Daily)**	**Chloride Groundwater Concentration at 150 feet**
135 mg/L	0.07 MGD (3.2%)	79 pounds (lbs)	110 mg/L
130 mg/L	0.1 MGD (4.5%)	108 lbs	110 mg/L
125 mg/L	0.13 MGD (5.9%)	135 lbs	110 mg/L
120 mg/L	0.2 MGD (9.1%)	200 lbs	110 mg/L
115 mg/L	0.4 MGD (18.2%)	384 lbs	110 mg/L

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11. To achieve compliance with the chloride GWQO and to conserve potable water, the City plans to reduce the volume of effluent, and thus a reduction of the chloride mass discharged to the percolation pond by providing recycled water for various local uses. The Regional Board has evaluated the planned recycle projects and has determined that they will be consistent with the State Water Board's Recycled Water Policy and will still preserve available assimilative capacity within the Santa Paula Basin consistent with the SNMP. The mass-based effluent limitation for chloride in the City WDRs reflects the City's chosen compliance option. The groundwater limitations are based on the GWQOs in the Basin Plan.

12. On December 22, 2015, the City submitted the Recycled Water Program Technical Report and Notice of Intent with the Title 22 Engineering Report to the State Water Board's Division of Drinking Water (DDW) for approval. DDW conditionally approved the Title 22 Engineering Report on August 19, 2016. On June 14, 2017, the Regional Board enrolled the City's recycled water program under separate Water Reclamation Requirements for Recycled Water Use Order WQ 2016-0068-DDW, issued by the State Water Board on June 7, 2016.

13. In the City's report, *Chloride Load Reduction Milestones*, submitted to the Regional Board on March 14, 2017, the City included the construction of reverse osmosis treatment at the SPWRF as an option (under Supplemental Strategies), if needed, in order to comply with the chloride groundwater quality objective of 110 mg/L. The City will continue its source control efforts to remove SRWSs and will first focus on recycling most of its effluent in order to bring the groundwater back into compliance with GWQOs. Progress with these efforts will be assessed at Year 2022 and determination will be made as to whether advanced treatment will be required to meet the chloride GWQO at Year 2027. If advanced treatment is required, effluent limits will be applied in a way to ensure protection of all beneficial uses, including salt-sensitive crops.

14. Due to the following reasons, the City cannot immediately comply with the chloride effluent and groundwater limitations prescribed in the City's WDRs, Order No. R4-2017-XXXX: (1) high chloride concentrations in the influent, (2) the wastewater treatment process not currently designed to remove chloride out of the waste stream, and (3) time needed to construct recycled water pipelines to deliver recycled water to users. In addition, the current progress of the City's SRWS Buyback Program does not reliably ensure that the SPWRF will comply with the chloride effluent and groundwater limitations. Therefore, the

Regional Board has determined that issuance of this Cease and Desist Order (CDO) is appropriate and necessary to put the City on the path towards compliance with the effluent and groundwater limitations for chloride set forth in the City's WDRs. This CDO requires the City to comply with interim chloride effluent and groundwater limitations and implement actions pursuant to a prescribed time schedule.

By the end of the CDO schedule, there will be permitted degradation of groundwater with respect to chloride within a limited mixing zone radius downgradient and adjacent to the SPWRF percolation ponds, measured from the boundaries of the percolation pond to 150 feet. This distance is the shortest distance where SPWRF effluent disposed to the percolation pond can mix with groundwater and result in receiving water chloride concentrations of 110 mg/L or less. Groundwater within the 150-foot mixing zone will exceed the chloride GWQO of 110 mg/L. Based on the available data, there are no water supply wells within the 150-foot mixing zone. The City can arrange for alternative water supplies for any well owners in the mixing zone, if any are discovered.15. California Water Code (CWC) section 13301 provides in pertinent part "When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action...Cease and desist orders may be issued directly by a board, after notice and hearing."

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16. As a result of the historical monitoring data and other activities described in this CDO, the Regional Board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the Regional Board in the City's WDRs, Order No. R4-2017-XXXX. This CDO requires the City to take appropriate remedial action and to comply in accordance with the time schedule set forth below. The compliance schedules provide the City sufficient time to achieve compliance with the chloride requirements in its WDRs.

17. This Order includes interim effluent and groundwater limitations, identified below, and actions and milestones proposed by the City leading to compliance with the effluent and groundwater limitations for chloride. The interim effluent and groundwater limitations are based on gradual reductions in chloride mass loading. The established compliance schedule is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the remedial actions that are necessary to comply with the effluent and groundwater limitations.

18. A CDO is appropriate in these circumstances to allow time for the City to implement recycled water projects and continue its SRWS Buyback Program to bring the SPWRF into compliance with the effluent and groundwater limitations. The temporary exceedances allowed by this CDO are in the public interest given the significant environmental benefits associated with reducing chloride loading to groundwater to promptly achieve compliance with the effluent and groundwater limitations, and to allow for recycled water use throughout the City of Santa Paula, especially in light of California's historic drought and predictions for future climatological effects from climate change.

19. CWC section 13267 provides in pertinent part:

    (a) A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement or authorized by this division, may investigate the quality of any waters of the state within its region.

    (b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

20. The technical and/or monitoring reports required by this CDO are necessary to assure compliance with the WDRs Order No. R4-2017-XXXX and this CDO. The City operates the SPWRF that produces and discharges the waste subject to WDRs. The actions and reports required by this CDO are directly related to the City's compliance with these requirements and do not require expense that is not already required pursuant to the WDRs. This CDO provides time for the City to comply and to spread costs over several years. The burden of these actions and reports bears a reasonable relationship to the need for the actions and reports.

21. This CDO concerns an existing facility and does not significantly alter the status with respect to the SPWRF. The issuance of this Order is an enforcement action by a regulatory agency and is being taken for the protection of the environment. Therefore, issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et seq.) in accordance with sections 15061(b)(3), 15301, 15306, 15307, 15308, and 15321(a)(2) of Title 14 of the California Code of Regulations.

22. The Regional Board has notified the City and interested agencies and persons of its intent to issue this CDO concerning compliance with the WDRs. The Regional Board accepted written comments, and heard and considered all comments and evidence pertaining to this matter in a public hearing.

23. Any person aggrieved by this action of the Regional Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

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THEREFORE, IT IS HEREBY ORDERED that, pursuant to California Water Code sections 13301 and 13267, the City of Santa Paula, as owner of the SPWRF, shall comply with the following measures to ensure compliance with Order No. R4-2017-XXXX:

1. Cease and desist discharging chloride in violation or threatened violation of Order No. R4-2017-XXXX. No term or condition of Order No. R4-2017-XXXX is superseded or stayed by this CDO.

2. Comply immediately with the interim effluent and groundwater limitations for chloride prescribed in Table 4, below, and in accordance with the following schedule.

Table 4 – Interim Chloride Limitations[1]

Effluent Limitation (Monthly Average)	Mass Reduction	Groundwater Limitation (Monthly Average)	Deadline
2,479 lbs/day	0%	133 mg/L	November 2, 2017
2,231 lbs/day	10%	133 mg/L	November 2, 2019
1,983 lbs/day	20%	133 mg/L	November 2, 2020
1,240 lbs/day	50%	131 mg/L	November 2, 2022
744 lbs/day	70%	129 mg/L	November 2, 2024
124 lbs/day	95%	114 mg/L	November 2, 2026

Footnote:

[1]. Based on the City's *Chloride Load Reduction Milestones* dated August 8, 2017.

3. Comply with the following remedial actions and milestones according to the time schedule below:

   A. By **March 1, 2018**, the City shall submit a technical report evaluating the long-term effectiveness of the SRWS Buyback Program for the reduction of chloride concentration in the SPWRF's effluent and the groundwater.

   B. By **March 1, 2018**, the City shall submit a *Groundwater Chloride Investigation and Well Protection Workplan* (with schedules and milestones) for the Executive Officer's review and approval. The City shall implement this Workplan within 60 days from the Executive Officer's approval. The Workplan shall:

      i. Identify the names/numbers and locations of the groundwater monitoring wells to determine site-specific groundwater flow direction and gradient for the purposes of adequately assessing any impacts of chloride discharges to the quality of the receiving groundwater;

      ii. Identify all water supply wells that may be influenced by the discharge of chloride from the SPWRF, the well structures, ownership and associated groundwater quality; and

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iii. Include an approach to ensure that groundwater quality influenced by the discharge of chloride from the SPWRF and delivered from agricultural water supply wells to irrigate salt-sensitive crops be no higher than 117 mg/L. Alternatively, the City may voluntarily provide alternative water supplies to private well owners to irrigate salt-sensitive crops, upon request by the well owners.

C. By **June 1, 2018**, the City shall submit the infrastructure design for recycled water delivery from the SPWRF, including all layouts of recycled water use pipelines and pump stations.

D. By **June 1, 2020**, the City shall complete all necessary regulatory requirements, including compliance with the California Environmental Quality Act (CEQA), and obtain all necessary permits for construction and/or installation of pipelines.

E. By **June 1, 2022**, the City shall complete infrastructure construction and/or installation of recycling pipelines for recycled water delivery and uses.

F. If by **November 2, 2022**, the City has not achieved a 50% mass reduction (in Table 4), the City shall submit an *Alternative Effluent Chloride Mitigation Workplan* that specifies effluent chloride reduction alternatives that will ensure compliance with the GWQO by November 2, 2027 for the Executive Officer's review and approval. The chloride compliance schedules and milestones must be presented with all alternatives. The Alternative Effluent Chloride Mitigation Workplan shall be submitted to the Regional Board for the Executive Officer's review and approval by **March 1, 2023**. The City shall implement the *Alternative Effluent Chloride Mitigation Workplan* within 60 days from the executive Officer's approval.

G. As soon as possible, but no later than **November 2, 2027**, the City shall achieve full compliance with the effluent and groundwater limitations for chloride prescribed in Order No. R4-2017-XXXX.

H. After each date listed in subsection A. through F. above, the City shall provide a verbal report at the next regularly scheduled Board meeting pertaining to the compliance, or lack thereof, with the requirement.

4. Submit quarterly progress reports on the status of the City's compliance with the effluent and groundwater limitations for chloride in Order No. R4-2017-XXXX and this CDO.

A. Each quarterly progress report shall include, but is not limited to:

i. ***Continuous SRWS Buyback Program Assessment*** – The City shall report its progress on the SRWS Buyback Program and evaluate whether the Program is resulting in chloride reductions in the effluent and groundwater.

ii. **G*roundwater and Well Protection Program*** – The City shall report its progress on implementing the *Groundwater Chloride Investigation and Well Protection Workplan*, including the actions taken to protect water supply wells influenced by the discharge of chloride from the SPWRF.

iii. ***Alternative Effluent Chloride Mitigation Implementation*** – The City shall provide the progress of implementing the alternative effluent chloride mitigation

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workplan and evaluate the compliance with the schedule and milestones set forth in the CDO and WDRs.

B. Quarterly progress reports shall be *received* by the Regional Board by the 30th day of the month following the end of each quarterly monitoring period according to Table 5, below. The first report is due by January 30, 2018.

Table 5 – Reporting Period and Due

Quarterly Report	Reporting Period	Report Due*
First Quarter	January - March	April 30
Second Quarter	April - June	July 30
Third Quarter	July - September	October 30
Fourth Quarter	October - December	January 30
Annual	January - December	April 30

*If a deadline falls on a Saturday, Sunday, or State holiday, the report must be received by the next business day.

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5. Any person signing a document submitted under this CDO shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

6. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the City shall contain the professional's signature and/or stamp of the seal.

7. The City shall submit all reports required under this CDO, including groundwater monitoring data in Electronic Data Format, well and discharge location data, and searchable Portable Document Format (PDF) of reports and correspondence, to the State Water Board's GeoTracker database under Global ID WDRs 100000849.

8. If the City fails to comply with any provision of this CDO, the Regional Board may take any further action authorized by law. The Executive Officer, or his/her delegee, may take

appropriate administrative enforcement action pursuant, but not limited to, California Water Code sections 13268 and/or 13350. The Regional Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.

9. This CDO may be reopened at the Regional Board's discretion to consider limits or other requirements for the SPWRF and may specifically be reopened to make revisions consistent with the City's efforts to reduce chloride discharge from the SPWRF.

10. This Order becomes effective immediately upon issuance.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, November 2, 2017.

_____
Samuel Unger, P.E.
Executive Officer

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