CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ERRATA SHEET FOR TENTATIVE ORDER NO. R9-2021-0100 WASTE DISCHARGE AND WATER RECLAMATION REQUIREMENTS FOR THE CITY OF OCEANSIDE ADVANCED WATER PURIFICATION FACILITY INDIRECT POTABLE REUSE FOR GROUNDWATER RECHARGE SAN DIEGO COUNTY

California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) staff prepared this Errata Sheet to document proposed changes to Tentative Order No. R9-2021-0100, *Waste Discharge and Water Reclamation Requirements for the City of Oceanside Advanced Water Purification Facility Indirect Potable Reuse for Groundwater Recharge, San Diego County* (Tentative Order No. R9-2021-0100). The changes to Tentative Order No. R9-2021-0100 are proposed:

- In response to comments received from the City of Oceanside during the public comment period. The response to comments document (**Supporting Document 5**) explains the changes proposed in response to the City of Oceanside's comments;

- To ensure constituents of emerging concern (CEC) monitoring requirements are consistent with the State Water Resources Control Board (State Water Board) *Water Quality Control Policy for Recycled Water* (Recycled Water Policy); and

- To incorporate modified recommendations submitted by the State Water Board Division of Drinking Water (DDW) in its' September 29, 2021 *Corrected – Conditional Acceptance Letter for the City of Oceanside Pure Water Oceanside Project Engineering Report.*

The proposed changes to Tentative Order No. R9-2021-0100 are shown below in underline/~~strikeout~~ format to indicate added and removed language, respectively. San Diego Water Board staff will incorporate the proposed changes upon adoption of Tentative Order No. R9-2021-0100.

1. Tentative Order No. R9-2021-0100, section IV.C, Tables 4 through 9 will be modified and Table 10 will be replaced, as follows:

Table 1. Effluent Limitations at M-008

Parameter	Units	Average Annual[1]	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum
Aluminum[2]	mg/L	0.2	-	-	-
Boron[3]	mg/L	-	0.75	-	-
Chloride[2,3]	mg/L	250	500	-	-

Parameter	Units	Average Annual[1]	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum
Color Units[2]	Apparent Color Unit (ACU)	15	-	-	-
~~Copper[4]~~	~~mg/L~~	~~1.0~~	~~-~~	~~-~~	~~-~~
Fluoride[3,4]	mg/L	1	2.0	-	-
Free Chlorine Residual[5]	mg/L	-	-	2.0	-
Iron[2,3]	mg/L	0.3	0.85	-	-
~~Lead[4]~~	~~mg/L~~	~~0.015~~	~~-~~	~~-~~	~~-~~
Manganese[2,3]	mg/L	0.05	0.15	-	-
Methylene Blue-Activated Substances (MBAS)[2,3]	mg/L	0.5	-	-	-
Methyl-tert-butyl ether (MTBE)[2]	mg/L	0.005	-	-	-
~~Nitrate (as Nitrogen)[3,4]~~	~~mg/L~~	~~10~~	~~10~~	~~-~~	~~-~~
~~Nitrate + Nitrite (as nitrogen)[4]~~	~~mg/L~~	~~10~~	~~10~~	~~-~~	~~-~~
~~Nitrite (as nitrogen)[4]~~	~~mg/L~~	~~1~~	~~1~~	~~-~~	~~-~~
Total Nitrogen[6]	mg/L	-	10	-	-
Odor[2]	Threshold Odor Number (TON)	3	-	-	-
Percent Sodium[3]	%	-	60	-	-
pH[7]	pH Units	-	-	6.5	8.5 ~~8.0~~
Silver[2]	mg/L	0.1	-	-	-
Sulfate[2,3]	mg/L	250	500	-	-
Thiobencarb[2]	mg/L	0.001	-	-	-

Parameter	Units	Average Annual[1]	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum
Total Dissolved Solids (TDS)[3]	mg/L	500	1000	-	-
Total Organic Carbon (TOC)[5,8,9]	mg/L	0.5	-	-	0.5
Turbidity[10,12]	nephelometric turbidity units (NTU)	-	[11]	-	[11]
Zinc[2]	mg/L	5.0	-	-	-

[1]The average annual effluent limitation must apply to the arithmetic mean of the results of all samples collected during each calendar year.

[2]Parameters with secondary maximum contaminant levels (MCLs) established in title 22, section 64449, Tables 64449-A and 64449-B.

[3]Parameters with water quality objectives established in the Basin Plan.

[4]Parameters with primary MCLs established in title 22, section 64431, Table 64431-A.

[5]Parameters with effluent limitations recommended by DDW's *Conditional Acceptance Letter for the City of Oceanside Pure Water Oceanside Project Engineering Report*, dated July 26, 2021.

[6]Parameters with limits established in title 22, section 60320.210.

[7]Parameter~~s~~ with limit~~s~~ established in 40 Code of Federal Regulations, section 143.3 ~~title 22, section 60320.201~~.

[8]TOC must not exceed 0.5 mg/L based on a 20-week running average of all TOC results and the average of the last four monitoring results for TOC.

[9]During the first twenty weeks of full-scale operation the RO permeate must not exceed TOC concentrations of 0.25 mg/L in more than five percent of the sample results.

[10]Parameters with limits established in title 22, section 60301.320(b).

[11]The effluent turbidity must not exceed an average of 0.2 NTU within a 24-hour period or 0.5 NTU more than 5% of the time within a 24-hour period.

[12]The Discharger may monitor turbidity at Monitoring Location MFE rather than M-008.

Table 2. Effluent Limitations at M-008: Inorganic Chemicals with Primary MCLs

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Aluminum	mg/L	1
Antimony	mg/L	0.006
Arsenic	mg/L	0.010

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
~~Asbestos (for fibers exceeding 10 micrometers (µm) in length)~~	~~million fibers per liter (MFL)~~	~~7~~
Barium	mg/L	1
Beryllium	mg/L	0.004
Cadmium	mg/L	0.005
Chromium	mg/L	0.05
Cyanide	mg/L	0.15
Fluoride	mg/L	2.0
Mercury	mg/L	0.002
Nickel	mg/L	0.1
~~Perchlorate~~	~~mg/L~~	~~0.006~~
Selenium	mg/L	0.05
Thallium	mg/L	0.002

[1]Parameters with primary MCLs established in title 22, section 64431, Table 64431-A.

Table 3. Effluent Limitations at M-008: Volatile Organic Chemicals (VOCs) with Primary MCLs

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Benzene	mg/L	0.001
Carbon Tetrachloride	mg/L	0.0005
1,2-Dichlorobenzene	mg/L	0.6
1,4-Dichlorobenzene	mg/L	0.005
1,1-Dichloroethane	mg/L	0.005
1,2-Dichloroethane	mg/L	0.0005
1,1-Dichloroethylene	mg/L	0.006
cis-1,2-Dichloroethylene	mg/L	0.006
trans-1,2-Dichloroethylene	mg/L	0.01
Dichloromethane	mg/L	0.005
1,2-Dichloropropane	mg/L	0.005
1,3-Dichloropropene	mg/L	0.0005
Ethylbenzene	mg/L	0.3
MTBE	mg/L	0.013
Monochlorobenzene	mg/L	0.07
Styrene	mg/L	0.1
1,1,2,2-Tetrachloroethane	mg/L	0.001
Tetrachloroethylene	mg/L	0.005
Toluene	mg/L	0.15
1,2,4-Trichlorobenzene	mg/L	0.005
1,1,1-Trichloroethane	mg/L	0.200
1,1,2-Trichloroethane	mg/L	0.005

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Trichloroethylene	mg/L	0.005
Trichlorofluoromethane	mg/L	0.15
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/L	1.2
Vinyl Chloride	mg/L	0.0005
Xylenes	mg/L	1.750[2]

[1]Parameters with primary MCLs established in title 22, section 64444, Table 64444-A.

[2]The MCL is for either a single isomer or the sum of the isomers.

Table 4. Effluent Limitations at M-008: Synthetic Organic Chemicals (SOCs) with Primary MCLs

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Alachlor	mg/L	0.002
Atrazine	mg/L	0.001
Bentazon	mg/L	0.018
Benzo(a)pyrene	mg/L	0.0002
Carbofuran	mg/L	0.018
Chlordane	mg/L	0.0001
2,4-Dichlorophenoxyacetic acid	mg/L	0.07
Dalapon	mg/L	0.2
1,2-Dibromo-3-chloropropane	mg/L	0.0002
Di(2-ethylhexyl)adipate	mg/L	0.4
Di(2-ethylhexyl)phthalate	mg/L	0.004
Dinoseb	mg/L	0.007
Diquat	mg/L	0.02
Endothall	mg/L	0.1
Endrin	mg/L	0.002
Ethylene Dibromide	mg/L	0.0005
Glyphosate	mg/L	0.7
Heptachlor	mg/L	0.00001
Heptachlor epoxide	mg/L	0.00001
Hexachlorobenzene	mg/L	0.001
Hexachlorocyclopentadiene	mg/L	0.05
Gamma BHC (Lindane)	mg/L	0.0002
Methoxychlor	mg/L	0.03
Molinate	mg/L	0.02
Oxamyl	mg/L	0.05
Pentachlorophenol	mg/L	0.001
Picloram	mg/L	0.5

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Polychlorinated Biphenyls (PCBs)	mg/L	0.0005
Simazine	mg/L	0.004
Thiobencarb	mg/L	0.07
Toxaphene	mg/L	0.003
1,2,3-Trichloropropane	mg/L	0.000005
2,3,7,8- tetrachlorodibenzodioxin (Dioxin)	mg/L	3×10^{-8}
2-(2,4,5-trichlorophenoxy)propionic acid (Silvex)	mg/L	0.05

[1]Parameters with primary MCLs established in title 22, section 64444, Table 64444-A.

Table 5. Effluent Limitations at M-008: Disinfection Byproducts with Primary MCLs

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Total Trihalomethanes (TTHMs) • Bromodichloromethane • Bromoform • Chloroform • Dibromochloromethane	mg/L	0.080
Haloacetic acid (five) • Monochloroacetic acid • Dichloroacetic acid • Trichloroacetic acid • Monobromoacetic acid • Dibromoacetic acid	mg/L	0.60
Bromate	mg/L	0.010
~~Chlorite~~	~~mg/L~~	~~1.0~~

[1]Parameters with primary MCLs established in title 22, section 64533, Table 64533-A.

Table 6. Effluent Limitations at M-008: Radionuclides with Primary MCLs

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Combined Radium-226 and Radium-228	Picocuries per Liter (pCi/L)	5
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15
Uranium	pCi/L	20

Parameter[1]	Units	Running Annual Average ~~4-Week Average~~
Beta/photon emitters	millirem/yr	4
Strontium-90	pCi/L	8
Tritium	pCi/L	20,000

[1]Parameters with primary MCLs established in title 22, sections 64442 and 64443, Tables 64442 and 64443.

Table 10. Effluent Limitations at M-008: Assorted Primary MCLs with Running 4-Week Average Limits

Parameter	Units	Running 4-Week Average[1]
Copper[2]	mg/L	1.0
Lead[2]	mg/L	0.3
Nitrate (as Nitrogen)[2, 3]	mg/L	10
Nitrate + Nitrite (as nitrogen)[2]	mg/L	10
Nitrite (as nitrogen)	mg/L	1
Asbestos (for fibers exceeding 10 micrometers (µm) in length)[2]	million fibers per liter (MFL)	7
Perchlorate[2]	mg/L	0.006
Chlorite[4]	mg/L	1.0

[1]The MRP requires monthly monitoring for all the parameters listed in Table 10. If a monthly sample exceeds an MCL, confirmation sampling and weekly sampling are required before the running 4- week average calculation to determine compliance with the effluent limitation.

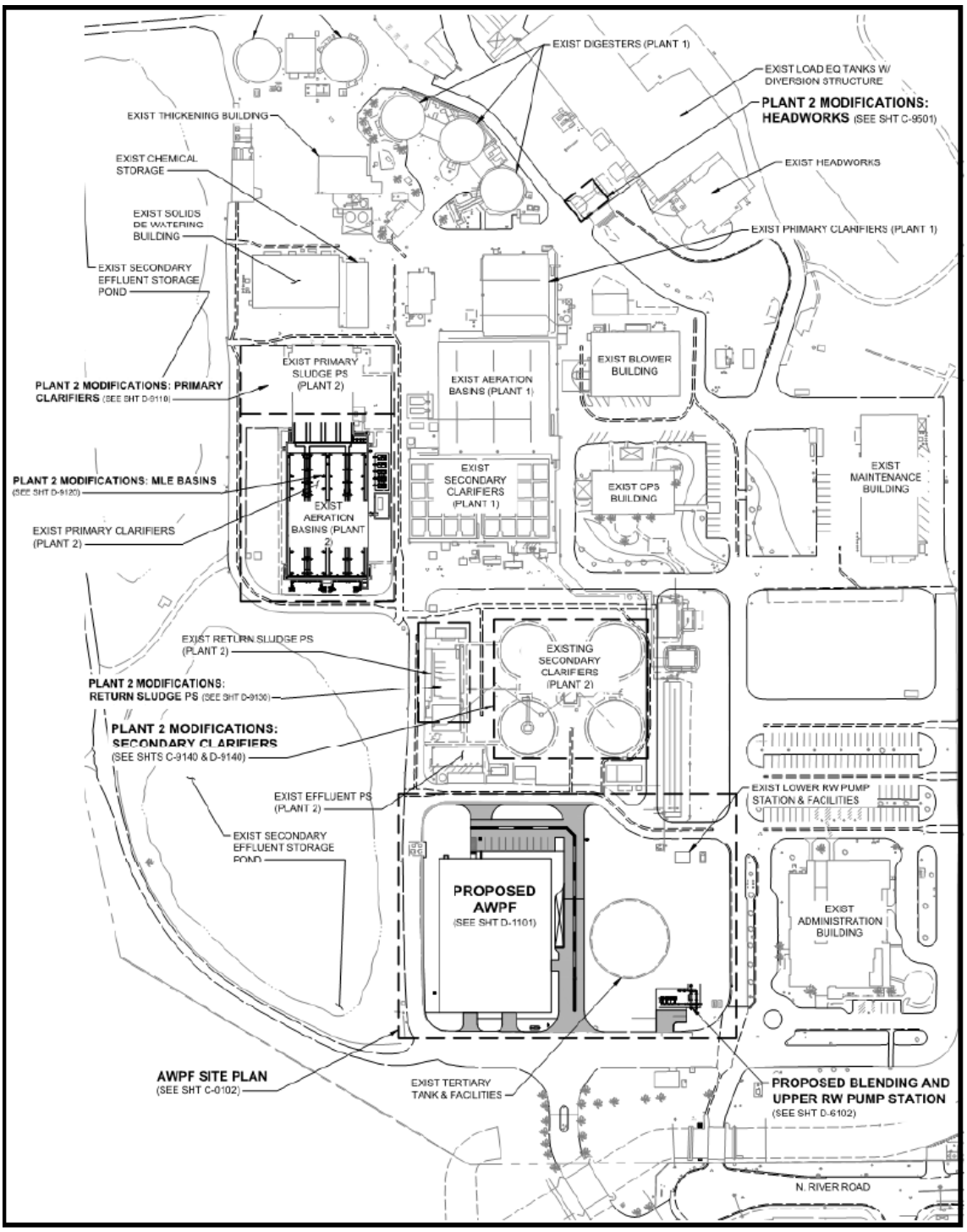
[2]Parameters with primary MCLs established in title 22, section 64431, Table 64431-A.

[3]Parameters with water quality objectives established in the Basin Plan.

[4]Parameters with primary MCLs established in title 22, section 64533, Table 64533-A.

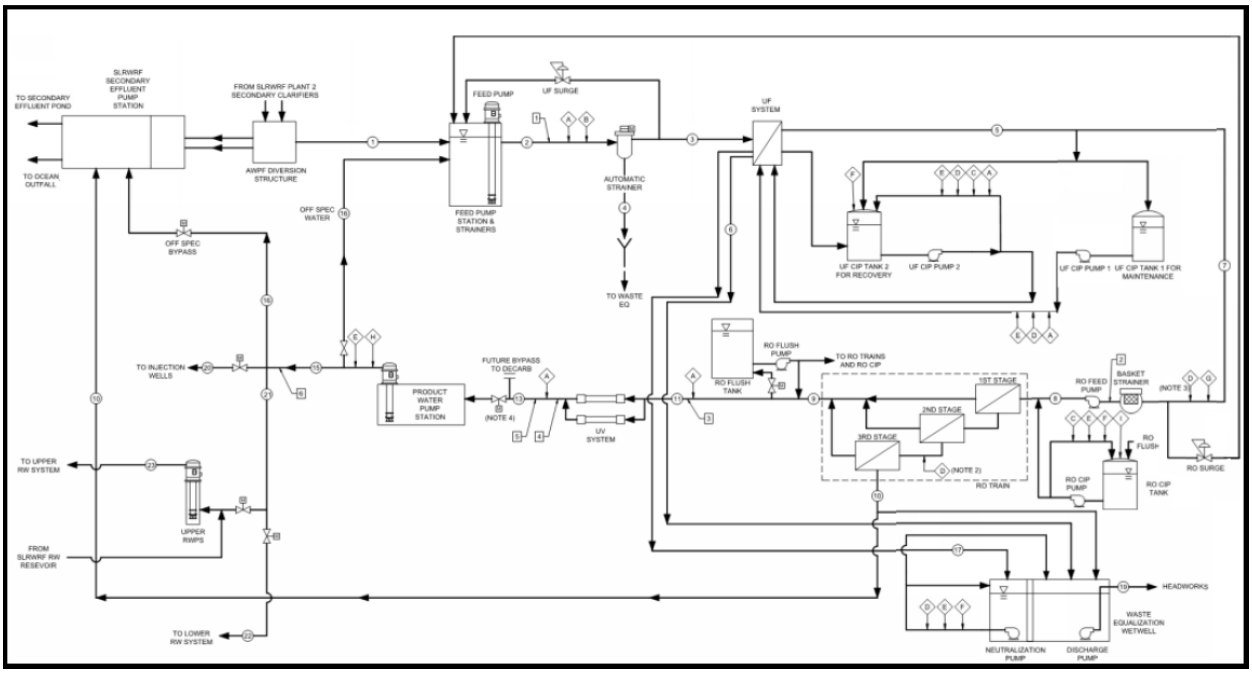
2. Tentative Order No. R9-2021-0100, section V.B, Table 10 will be renamed Table 11.

3. Tentative Order No. R9-2021-0100, Attachment B - Advanced Water Purification Facility Maps and Figures, Figure B-2 will be replaced with the following figure.



4. Tentative Order No. R9-2021-0100, Attachment B - Advanced Water Purification Facility Maps and Figures, Figure B-3 will be replaced with the following figure.

5. Tentative Order No. R9-2021-0100, Attachment C, Figure C-1 will be replaced with the following figure.



6. Tentative Order No. R9-2021-0100, Attachment D - Water Reclamation Requirements, section IV.G will be modified as follows:

   The Discharger must inspect the UVT meter at least weekly and check the UVT meter results against a reference ~~benchtop~~ unit to document accuracy. The OOP must include the tolerance and response actions to the UVT meter results.

7. Tentative Order No. R9-2021-0100, Attachment D - Water Reclamation Requirements, section VI.E.3 will be modified as follows:

   Performed by an individual who holds a valid and current Cross-Connection Program Specialist certification issued by the AWWA [American Water Works Association] or an organization with equivalent certification requirements. An individual may pursue the University of Southern California's Training of Cross Connection Control Program Specialists; however, the individual must still attain

certification from the AWWA.

8. Tentative Order No. R9-2021-0100, Attachment E – Monitoring and Reporting Program, section III, Table E-1 will be modified as follows:

Table E-1. Summary of Monitoring Locations

Monitoring Location Name	Primary Station Codes	Monitoring Location Description
M-006	NA	A location after secondary treatment and before the membrane filtration system (33.246464, -117.332108)
MFE	3790014-100	A location after UF and before reverse osmosis (RO) (33.245661, -117.331994)
M-008	3790014-200	A location after free chlorine and water stabilization process, and sodium hypochlorite injection, prior to injection to groundwater (33.2456, -117.331069)
MW-A-1 and MW-A-2[1]	NA	Monitoring wells located down gradient of injection wells. Monitoring wells (A-1) have well screen intervals in the deep aquifer (90 to 155 feet below grade) and monitoring wells (A-2) have well screen intervals in the shallow aquifer (30 to 60 feet below grade). The wells are collocated next to each other. (33.233509, -117.331042)
MW-B-1 and MW-B-2[1]	NA	Monitoring wells located down gradient of injection wells. Monitoring wells (B-1) have well screen intervals in the deep aquifer (85 to 140 feet below grade) and monitoring wells (B-2) have well screen intervals in the shallow aquifer (30 to 70 feet below grade). The wells are collocated next to each other. (33.227635, -117.338333)
MW-C-1 and MW-C-2[1,2]	NA	Monitoring wells located down gradient of injection wells. Monitoring wells (C-1) have well screen intervals in the deep aquifer (90 to 155 feet below grade) and monitoring wells (C-2) have well screen intervals in the shallow aquifer (30 to 60 feet below grade). The wells are collocated next to each other. (33.230943, 117.331071)

[1]The Discharger will the use monitoring locations for compliance with the WRRs as specified in the Discharger's OOP.

[2]The Discharger will monitor at MW-C-1 and MW-C-2 if Injection Well 006 is in use ~~needed to reach the goal of discharging 3.0 MGD and the goal cannot be met using only Injection Wells 001 and 003~~.

9. Tentative Order No. R9-2021-0100, Attachment E – Monitoring and Reporting Requirements, section IV.B, Table E-3 will be modified as follows:

Table E-3. Effluent Monitoring at M-008

Parameter	Units	Sample Type	Minimum Sample Frequency
Flowrate	MGD	Recorder	Continuous
Turbidity[1]	nephelometric turbidity units (NTU)	Recorder	Continuous
pH	pH Units	Recorder	Continuous
Total Coliform	Most Probable Number (MPN) /100	Grab	Daily[4]
Total Dissolved Solids (TDS)	mg/L	24-hour composite or grab	Monthly
Chloride[1]	mg/L	24-hour composite or grab	Quarterly
Sulfate[1]	mg/L	24-hour composite or grab	Quarterly
Percent Sodium	%	24-hour composite or grab	Quarterly
Total Nitrogen[2,~~3~~]	mg/L	24-hour composite	2 per week
Nitrate + Nitrite (as Nitrogen)[3]	mg/L	Calculate	Monthly
Nitrate (as Nitrogen)[3]	mg/L	24-hour composite	Monthly
Nitrite (as Nitrogen)[3]	mg/L	24-hour composite	Monthly
Iron	mg/L	24-hour composite or grab	Quarterly
Manganese	mg/L	24-hour composite or grab	Monthly
Methylene Blue-Activated Substances (MBAS)[1]	mg/L	24-hour composite or grab	Quarterly
Odor[1]	Threshold Odor Number (TON)	24-hour composite	Quarterly
Color Units[1]	Apparent Color Unit (ACU)	24-hour composite	Quarterly
Lead[3]	Micrograms per Liter (µg/L)	24-hour composite or grab	Monthly

Parameter	Units	Sample Type	Minimum Sample Frequency
Copper[1]	µg/L	24-hour composite or grab	Monthly
Total Organic Carbon (TOC)	mg/L	Recorder or 24-hour composite	Weekly
Alkalinity (as $CaCO_3$)	mg/L	24-hour composite	Monthly
Silver[1]	mg/L	24-hour composite or grab	Quarterly
Thiobencarb[1]	µg/L	24-hour composite or grab	Quarterly
Zinc[1]	mg/L	24-hour composite or grab	Quarterly

[1]Parameters with secondary maximum containment levels (MCLs) established in title 22, section 64449 Table 64449-A.

[2]See section IV.C and IV.D of this MRP for details on monitoring.

[3]Parameters with primary MCLs established in title 22, section 64431 Table 64431.

[4]The minimum sampling frequency shall be five days per week.

10. Tentative Order No. R9-2021-0100, Attachment E – Monitoring and Reporting Requirements, section IV.H, Table E-11 will be modified as follows:

Table E-11. Groundwater Monitoring at MW-A-1, MW-A-2, MW-B-1, MW-B-2, MW-C-1, and MW-C-2[1]

Parameter	Units	Minimum Sample Frequency[2]
Groundwater Elevation[3]	0.01 Feet (ft)	Quarterly
Depth to Groundwater	0.01 ft	Quarterly
Gradient	ft/ft	Quarterly[4]
Gradient Direction	Degrees	Quarterly[4]
pH	pH Units	Once per 6 months
Total Coliform	Most Probable Number (MPN) /100	Once per 6 months
Total Dissolved Solids (TDS)	mg/L	Once per 6 months
Chloride	mg/L	Once per 6 months
Sulfate	mg/L	Once per 6 months
Percent Sodium	%	Once per 6 months
Total Nitrogen	mg/L	Quarterly
Nitrate + Nitrite (as nitrogen)	mg/L	Quarterly
Nitrate (as nitrogen)	mg/L	Quarterly
Nitrite (as nitrogen)	mg/L	Quarterly
Iron	mg/L	Once per 6 months

Parameter	Units	Minimum Sample Frequency[2]
Manganese	mg/L	Once per 6 months
Methylene Blue-Activated Substances (MBAS)	mg/L	Once per 6 months
Odor	Threshold Odor Number (TON)	Once per 6 months
Color Units	Apparent Color Unit (ACU)	Once per 6 months
Fluoride	mg/L	Once per 6 months
Lead	µg/L	Quarterly
Copper	µg/L	Quarterly
Silver	mg/L	Once per 6 months
Thiobencarb	µg/L	Once per 6 months
Zinc	mg/L	Once per 6 months
Aluminum	mg/L	Quarterly
Antimony	mg/L	Quarterly
Arsenic	mg/L	Quarterly
Asbestos (for fibers exceeding 10 µm in length)	million fibers per liter (MFL)	Quarterly
Barium	mg/L	Quarterly
Beryllium	mg/L	Quarterly
Cadmium	mg/L	Quarterly
Total Chromium	mg/L	Quarterly
Cyanide	mg/L	Quarterly
Fluoride	mg/L	Quarterly
Mercury	mg/L	Quarterly
Nickel	mg/L	Quarterly
Perchlorate	mg/L	Quarterly
Selenium	mg/L	Quarterly
Thallium	mg/L	Quarterly
Benzene	mg/L	Quarterly
Carbon Tetrachloride	mg/L	Quarterly
1,2-Dichlorobenzene	mg/L	Quarterly
1,4-Dichlorobenzene	mg/L	Quarterly
1,1-Dichloroethane	mg/L	Quarterly
1,2-Dichloroethane	mg/L	Quarterly
1,1-Dichloroethylene	mg/L	Quarterly
cis-1,2-Dichloroethylene	mg/L	Quarterly
trans-1,2-Dichloroethylene	mg/L	Quarterly
Dichloromethane	mg/L	Quarterly
1,2-Dichloropropane	mg/L	Quarterly
1,3-Dichloropropene	mg/L	Quarterly
Ethylbenzene	mg/L	Quarterly
MTBE	mg/L	Quarterly

Parameter	Units	Minimum Sample Frequency[2]
Monochlorobenzene	mg/L	Quarterly
Styrene	mg/L	Quarterly
1,1,2,2-Tetrachloroethane	mg/L	Quarterly
Tetrachloroethylene	mg/L	Quarterly
Toluene	mg/L	Quarterly
1,2,4-Trichlorobenzene	mg/L	Quarterly
1,1,1-Trichloroethane	mg/L	Quarterly
1,1,2-Trichloroethane	mg/L	Quarterly
1,2,3-Trichloropropane	mg/L	Quarterly
Trichloroethylene	mg/L	Quarterly
Trichlorofluoromethane	mg/L	Quarterly
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/L	Quarterly
Vinyl Chloride	mg/L	Quarterly
Xylenes (m,p)	mg/L	Quarterly
Alachlor	mg/L	Quarterly
Atrazine	mg/L	Quarterly
Bentazon	mg/L	Quarterly
Benzo(a)pyrene	mg/L	Quarterly
Carbofuran	mg/L	Quarterly
Chlordane	mg/L	Quarterly
2,4-Dichlorophenoxyacetic acid	mg/L	Quarterly
Dalapon	mg/L	Quarterly
1,2-Dibromo-3-chloropropane	mg/L	Quarterly
Di(2-ethylhexyl)adipate	mg/L	Quarterly
Di(2-ethylhexyl)phthalate	mg/L	Quarterly
Dinoseb	mg/L	Quarterly
Diquat	mg/L	Quarterly
Endothall	mg/L	Quarterly
Endrin	mg/L	Quarterly
Ethylene Dibromide	mg/L	Quarterly
Glyphosate	mg/L	Quarterly
Heptachlor	mg/L	Quarterly
Heptachlor epoxide	mg/L	Quarterly
Hexachlorobenzene	mg/L	Quarterly
Hexachlorocyclopentadiene	mg/L	Quarterly
Lindane	mg/L	Quarterly
Methoxychlor	mg/L	Quarterly
Molinate	mg/L	Quarterly
Oxamyl	mg/L	Quarterly
Pentachlorophenol	mg/L	Quarterly
Picloram	mg/L	Quarterly

Parameter	Units	Minimum Sample Frequency[2]
PCBs	mg/L	Quarterly
Simazine	mg/L	Quarterly
Thiobencarb	mg/L	Quarterly
Toxaphene	mg/L	Quarterly
1,2,3-Trichloropropane	mg/L	Quarterly
Dioxin	mg/L	Quarterly
Silvex	mg/L	Quarterly
Bromodichloromethane	mg/L	Quarterly
Bromoform	mg/L	Quarterly
Chloroform	mg/L	Quarterly
Dibromochloromethane	mg/L	Quarterly
Monochloroacetic acid	mg/L	Quarterly
Dichloroacetic acid	mg/L	Quarterly
Trichloroacetic acid	mg/L	Quarterly
Monobromoacetic acid	mg/L	Quarterly
Dibromoacetic acid	mg/L	Quarterly
Bromate	mg/L	Quarterly
Chlorite	mg/L	Quarterly
Combined Radium-226 and Radium-228	pCi/L	Quarterly
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	Quarterly
Uranium	pCi/L	Quarterly
Beta/photon emitters	millirem/yr	Quarterly
Strontium-90	pCi/L	Quarterly
Tritium	pCi/L	Quarterly
Boron	mg/L	Quarterly
Aldrin	µg/L	Quarterly
Dieldrin	µg/L	Quarterly
4,4'-DDT	µg/L	Quarterly
4,4'-DDE	µg/L	Quarterly
4,4'-DDD	µg/L	Quarterly
Alpha-endosulfan	µg/L	Quarterly
Beta-endosulfan	µg/L	Quarterly
Endosulfan sulfate	µg/L	Quarterly
Endrin aldehyde	µg/L	Quarterly
Alpha-BHC	µg/L	Quarterly
Beta-BHC	µg/L	Quarterly
Delta-BHC	µg/L	Quarterly
Acrolein	µg/L	Quarterly
Acrylonitrile	µg/L	Quarterly
Chlorobenzene	µg/L	Quarterly

Parameter	Units	Minimum Sample Frequency[2]
Chloroethane	µg/L	Quarterly
1,1-dichloroethylene	µg/L	Quarterly
Methyl chloride	µg/L	Quarterly
Methyl bromide	µg/L	Quarterly
2-chloroethyl vinyl ether	µg/L	Quarterly
2,4,6-trichlorophenol	µg/L	Quarterly
P-chloro-m-cresol	µg/L	Quarterly
2-chlorophenol	µg/L	Quarterly
2,4-dichlorophenol	µg/L	Quarterly
2,4-dimethylphenol	µg/L	Quarterly
2-nitrophenol	µg/L	Quarterly
4-nitrophenol	µg/L	Quarterly
2,4-dinitrophenol	µg/L	Quarterly
2-methyl-4,6-dintrophenol	µg/L	Quarterly
Phenol	µg/L	Quarterly
Chromium (III) trivalent	µg/L	Quarterly
Acenaphthene	µg/L	Quarterly
Benzidine	µg/L	Quarterly
Hexachloroethane	µg/L	Quarterly
Bis(2-chloroethyl)ether	µg/L	Quarterly
2-chloronaphthalene	µg/L	Quarterly
1,3-dichlorobenzene	µg/L	Quarterly
3,3'-dichlorobenzidine	µg/L	Quarterly
2,4-dinitrotoluene	µg/L	Quarterly
2,6-dinitrotoluene	µg/L	Quarterly
1,2-diphenylhydrazine	µg/L	Quarterly
Fluoranthene	µg/L	Quarterly
4-chlorophenyl phenyl ether	µg/L	Quarterly
4-bromophenyl phenyl ether	µg/L	Quarterly
Bis(2-chloroisopropyl)ether	µg/L	Quarterly
Bis(2-chloroethoxyl)methane	µg/L	Quarterly
Hexachlorobutadiene	µg/L	Quarterly
Isophorone	µg/L	Quarterly
Nitrobenzene	µg/L	Quarterly
NDPA	µg/L	Quarterly
N-nitrosodiphenylamine	µg/L	Quarterly
Bis(2-ethylhexyl)phthalate	µg/L	Quarterly
Butyl benzyl phthalate	µg/L	Quarterly
Di-n-butyl phthalate	µg/L	Quarterly
Di-n-octyl phthalate	µg/L	Quarterly
Diethyl phthalate	µg/L	Quarterly
Dimethyl phthalate	µg/L	Quarterly
Benzo(a)anthracene	µg/L	Quarterly

Parameter	Units	Minimum Sample Frequency[2]
Benzo(b)fluoranthene	µg/L	Quarterly
Benzo(k)fluoranthene	µg/L	Quarterly
Chrysene	µg/L	Quarterly
Acenaphthylene	µg/L	Quarterly
Anthracene	µg/L	Quarterly
1,12-benzoperylene	µg/L	Quarterly
Fluorene	µg/L	Quarterly
Phenanthrene	µg/L	Quarterly
1,2,5,6-dibenzanthracene	µg/L	Quarterly
Indeno(1,2,3-cd)pyrene	µg/L	Quarterly
Pyrene	µg/L	Quarterly

[1]The Discharger will monitor ~~install~~ MW-C-1 and MW-C-2 if Injection Well 006 is in use ~~needed to reach the goal of 3.0 MGD discharged to the groundwater basin and the goal cannot be met using only Injection Wells 001 and 003~~.

[2]The Discharger may reduce the monitoring frequency in accordance with section II.K of this MRP.

[3]Groundwater elevation must be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.

[4]The Discharger may reduce monitoring for gradient and gradient direction to annually after the first year of operation.

11. Tentative Order No. R9-2021-0100, Attachment E – Monitoring and Reporting Requirements, section V.B.1, Table E-12 will be modified as follows:

Table E-12. CEC Initial Assessment Monitoring: Health, Performance, and Surrogates

Parameter	Units	Relevance	Sample Type	Minimum Sample Frequency	Reporting Limit	Monitoring Location(s)
1-4, Dioxane	µg/L	Health	24-Hour composite	Quarterly[1]	0.1	M-008, MW-A-1
N-Nitrosodimethylamine (NDMA)[1,4]	µg/L	Health/Performance	Grab	Quarterly[1]	0.002	MFE, M-008, MW-A-1
N-Nitrosomorpholine (NMOR)	µg/L	Health	Grab	Quarterly[1]	0.002	M-008, MW-A-1
Perfluorooctane sulfonate (PFOS)	µg/L	Health	Grab	Quarterly[1]	0.0065	M-008, MW-A-1
Perfluorooctanoic acid (PFOA)	µg/L	Health	Grab	Quarterly[1]	0.0007	M-008, MW-A-1
Sucralose[1,2]	µg/L	Performance	Grab	Quarterly	0.1	MFE, M-008, MW-A-1

Parameter	Units	Relevance	Sample Type	Minimum Sample Frequency	Reporting Limit	Monitoring Location(s)
Sulfamethoxazole	µg/L	Performance	Grab	Quarterly	0.01	M-008, MW-A-1
Electrical Conductivity	millimho per centimeter (mmho/cm) or decisiemens per meter (dS/m)	Surrogate	Grab	Quarterly	-	M-008
UV Light Absorbance	%	Surrogate	Grab	Quarterly	-	M-008

~~[1]If at any time during the first year the monitoring results show detections, the monitoring frequency automatically increases to once per month until the end of the initial assessment phase.~~

[1] [2]Section VII.C of the WRRs requires more frequent monitoring.

12. Tentative Order No. R9-2021-0100, Attachment E – Monitoring and Reporting Requirements, section V.B.2, Table E-14 will be modified as follows:

Table E-14. CEC Baseline Monitoring: Health, Performance, and Surrogates

Parameter[1]	Units	Relevance	Sample Type	Minimum Sample Frequency	Reporting Limit	Monitoring Location(s)
1-4, Dioxane	µg/L	Health	24-Hour composite	Once per 6 months[2]	0.1	M-008, MW-A-1
N-Nitrosodimethylamine[4]	µg/L	Health/ Performance	Grab	Once per 6 months[2]	0.002	MFE, M-008, MW-A-1
N-Nitrosomorpholine (NMOR)	µg/L	Health	Grab	Once per 6 months[2]	0.002	M-008, MW-A-1
Perfluorooctane sulfonate (PFOS)	µg/L	Health	Grab	Once per 6 months[2]	0.0065	M-008, MW-A-1
Perfluorooctanoic acid (PFOA)	µg/L	Health	Grab	Once per 6 months[2]	0.0007	M-008, MW-A-1
Sucralose[4]	µg/L	Performance	Grab	Once per 6 months[2] ~~TBD~~[3]	0.1	MFE, M-008, MW-A-1
Sulfamethoxazole	µg/L	Performance	Grab	Once per 6 months[2] ~~TBD~~[3]	0.01	M-008, MW-A-1
Electrical Conductivity	Mmho/cm or dS/m	Surrogate	Grab	TBD[3]	-	M-008
UV Light Absorbance	%	Surrogate	Grab	TBD[3]	-	M-008

[1]The San Diego Water Board may remove or add parameters based on the findings of the initial assessment monitoring phase.

[2]More frequent monitoring may be required if a threshold described in Table E-19 of this MRP is exceeded.

[3]Frequency will be specified by the San Diego Water Board after reviewing the monitoring results from the initial assessment phase.

[4]More frequent monitoring required by section VII.C of the WRRs in Attachment D of the Order.

13. Tentative Order No. R9-2021-0100, Attachment E – Monitoring and Reporting Requirements, section V.B.3, Table E-16 will be modified as follows:

Table E-16. CEC Standard Operation Monitoring: Health, Performance, and Surrogates

Parameter[1]	Units	Relevance	Sample Type	Minimum Sample Frequency	Reporting Limit	Monitoring Location(s)
1-4, Dioxane	µg/L	Health	24-Hour composite	Once per 6 months[2]	0.1	M-008, MW-A-1
NDMA[4]	µg/L	Health/Performance	Grab	Once per 6 months[2]	0.002	MFE, M-008, MW-A-1
NMOR	µg/L	Health	Grab	Once per 6 months[2]	0.002	M-008, MW-A-1
PFOS	µg/L	Health	Grab	Once per 6 months[2]	0.0065	M-008, MW-A-1
PFOA	µg/L	Health	Grab	Once per 6 months[2]	0.0007	M-008, MW-A-1
Sucralose[4]	µg/L	Performance	Grab	Once per 6 months[2] ~~TBD~~[3]	0.1	MFE, M-008, MW-A-1
Sulfamethoxazole	µg/L	Performance	Grab	Once per 6 months[2] ~~TBD~~[3]	0.01	M-008, MW-A-1
Electrical Conductivity	Mmho/cm or dS/m	Surrogate	Recorder	TBD[3]	-	M-008
UV Light Absorbance	%	Surrogate	Grab	TBD[3]	-	M-008

[1]The San Diego Water Board may add or remove parameters based on the findings of the initial assessment monitoring phase.

[2]More frequent monitoring may be required if a threshold described in Table E-19 of this MRP is exceeded.

[3]Frequency will be specified by the San Diego Water Board after reviewing the monitoring results from the initial assessment phase.

[4]Section VII.C of the WRRs requires more frequent monitoring.

14. Tentative Order No. R9-2021-0100, Attachment F – Fact Sheet, section II.A.1 will be modified as follows:

San Luis Rey Water Reclamation Facility. The Discharger has owned and operated the SLRWRF since its construction in 1972. The original design capacity of the SLRWRF was 9.4 MGD. ~~Since a 2004 upgrade,~~ Tthe SLRWRF has the capacity to treat an annual average of 17.6 ~~13.5~~ MGD through two treatment trains. The SLRWRF treats raw wastewater through conventional activated sludge treatment consisting of flow equalization, primary clarifiers, aeration basins, and secondary clarifiers. The Discharger recycles a portion of effluent through tertiary treatment, producing non-potable recycled water reused for landscape irrigation and regulated by Order No. 93-07 *Waste Discharge Requirements for the San Luis Rey Wastewater Treatment Plant City of Oceanside San Diego County* (Order No. 93-07) as amended by Addendum No. 1 to Order No. 93-07, *Waste Discharge Requirements for the San Luis Rey Wastewater Treatment Plant, City of Oceanside, San Diego County* (Addendum 1). Secondary treated effluent from the SLRWRF, that was not recycled, is discharged to the Pacific Ocean through the Oceanside Ocean Outfall (OOO) pursuant to Order No. R9-2019-0166, as amended by Order No. R9-2020-0190, National Pollutant Discharge Elimination System (NPDES) No. CA0107433, *Waste Discharge Requirements for the City of Oceanside San Luis Rey Water Reclamation Facility, La Salina Wastewater Treatment Plant, and Mission Basin Groundwater Purification Facility Discharge to the Pacific Ocean through the Oceanside Ocean Outfall* (Order No. R9-2019-0166).

15. Tentative Order No. R9-2021-0100, Attachment F – Fact Sheet, section II.A.2 will be modified as follows:

    Advanced Water Purification Facility. The Discharger has constructed the Facility at the SLRWRF to further treat the secondary effluent for indirect potable reuse. The Facility consists of ultrafiltration (UF), reverse osmosis (RO), ultraviolet-advanced oxidation process (AOP), post treatment stabilization, and free chlorine disinfection. The Facility will receive secondary effluent from the SLRWRF (Attachment B, Figure B-2 and Attachment C, Figure C-1).

    The UF system removes suspended solids and colloidal particulates from the influent stream to the Facility's RO process. The UF system also removes inert particulates, organic particulates, colloidal particulates, most pathogenic organisms, bacteria, and other particles by the size exclusion sieve action of the membranes. UF membranes are rated with a nominal pore size rating of approximately 0.01 micrometers (µm) (ultrafiltration) to 0.1 µm (microfiltration). The Facility has strainers immediately upstream of the UF membranes to protect against damage and/or fouling from larger particulates. Spent UF backwash water is diverted to an onsite wastewater wet well and discharged to the SLRWRF's clarifier.

    The RO system follows the UF system. The RO process removes dissolved inorganic and organic constituents including contaminants of emerging concern (CECs) and taste and odor causing compounds. The RO system consists of RO feed pumps and treatment vessels. A basket strainer on the influent to the RO

system prevents any large particulates from entering and damaging the RO pumps and membranes. The RO concentrate is discharged to the OOO pursuant to Order No. R9-2019-0166. The product water (i.e. permeate) from the RO system requires further chemical stabilization to prevent pipe corrosion.

~~Following the RO system, the Discharger adds sodium hydroxide and calcium hydroxide to the effluent to stabilize and increase the pH of the water prior to entering the AOP system~~. In the AOP system, the ~~stabilized~~ effluent from the RO system is initially dosed with sodium hypochlorite and mixed by a static mixer. The effluent then enters a set of UV reactors operating in parallel. Each UV reactor houses multiple UV lamps that the water flows past for irradiation by UV light. Post-stabilization chemicals are added to the conveyance pipeline upstream of the free chlorine disinfection compliance location. The free chlorine disinfection process considers the effect of post-stabilization on pH for free chlorine residual contact time determination.

Following the stabilization ~~UV reactors~~, the Discharger adds sodium hypochlorite in the product water clear well for disinfection. The disinfection will take place in the product water clear well and 350 feet of conveyance pipeline prior to exiting the Facility. The Discharger has completed a DDW approved tracer study to determine the proper baffling factor for both the clear well and pipeline.

16. Tentative Order No. R9-2021-0100, Attachment F – Fact Sheet, section II.B.1 will be modified as follows:

Groundwater Injection Wells. The Discharger will utilize two or three injection wells to discharge the advanced treated recycled water into the Basin (Attachment B, Figure B-3). The Order regulates the discharge of advanced treated recycled water, through the injection wells, to the groundwater basin. The Discharger's goal for the injection volume is 3,360 acre-feet (AF) per year, or approximately 3.0 MGD. The target injection flowrate for an individual injection well is 1,050 gallons per minute, or approximately 1.5 MGD. The Discharger has installed Injection Wells 001, 003, and 006. ~~The target injection flowrate for an individual injection well is 1,160 gallons per minute, or approximately 1 MGD. The Discharger plans to install Injection Wells 001 and 003 prior to Injection Well 006. If Injection Wells 001 and 003 can each achieve a sustained flowrate of 1.5 MGD, the installation of Injection Well 006 will be unnecessary.~~ The injection wells will discharge to the deeper aquifer, which is overlain by a groundwater basin-wide aquitard. The aquitard confines groundwater in the deeper aquifer therefore injection to the deeper zone is not anticipated to raise groundwater elevations in the shallow aquifer. Table F-2 below lists the locations of each injection well:

17. Tentative Order No. R9-2021-0100, Attachment F – Fact Sheet, section II.C will be modified as follows:

Monitoring Wells. The Discharger will monitor the groundwater quality

downgradient from the injection wells using four monitoring wells, and two additional monitoring wells if necessary. The Discharger will install clustered Monitoring Wells MW-A-1 and MW-B-1 in the deep and shallow aquifer prior to discharging to Injection Wells 001 and 003. The Discharger has installed ~~will install~~ a third clustered monitoring well, MW-C-1, in the deep and shallow aquifer for when ~~if~~ Injection Well 006 is used ~~installed~~. Each of the clustered monitoring wells will allow groundwater elevations to be measured and water quality samples to be collected, from both the deep and shallow aquifers. Section IV.H of the MRP requires groundwater monitoring to assess any potential impacts to receiving waters from the discharge. Table F-3 below lists the monitoring wells and their locations.

18. Tentative Order No. R9-2021-0100, Attachment F – Fact Sheet, section II.C, Table F-3, will be modified as follows:

Table F-3. Monitoring Well Locations

Monitoring Well	Latitude	Longitude
A	33.233509	-117.331042
B	33.227635	-117.338333
C[1]	33.230943	-117.331071

~~[1]The Discharger will install Monitoring Well C if Injection Well 006 is needed and installed.~~