STATE OF CALIFORNIA CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

TIME SCHEDULE ORDER NO. R4-2011-0126-AXX

REQUIRING CAMARILLO SANITARY DISTRICT (CAMARILLO WATER RECLAMATION PLANT) TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R4-2014-xxxx (NPDES PERMIT NO. CA0053597)

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

- 1. Camarillo Sanitary District (hereafter CSD or Permittee) owns and operates the Camarillo Water Reclamation Plant (hereafter Camarillo WRP), a tertiary wastewater treatment plant located at 150 East Howard Road, Camarillo, California.
- 2. The Camarillo WRP discharges tertiary-treated wastewater under waste discharge requirements contained in Order No. R4-2003-0079, adopted by this Regional Water Board on June 5, 2003. Order No. R4-2003-0079 serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0053597) and regulates the discharge of treated wastewater to Conejo Creek, a water of the United States and the State of California, within the Calleguas Creek Watershed (CCW). Order No. R4-2003-0079 expired on May 10, 2008, but has been administratively extended. Order No. R4-2014-XXXX, renewing the NPDES permit for the Camarillo WRP was adopted by the Regional Water Board following a hearing on May 8, 2014.
- 3. Eleven of the fourteen reaches of in the CCW were identified on the 2002 and the 2006 Clean Water Act (CWA) Section 303(d) List of water quality limited segments as impaired due to elevated levels of boron, chloride, sulfate, or total dissolved solids (TDS). These constituents are commonly referred to as salts. The reach to which CSD discharges remains on the most recent 303(d) List, 2010 California List of Water Quality Limited Segments (2010 303(d) List), which was approved by the United States Environmental Protection Agency (USEPA) on November 12, 2010. It is grouped under Category 4A of the 2010 303(d) List because the impairments are being addresses by a USEPA-approved TMDL. Salts primarily impact two beneficial uses: agricultural supply (AGR) and ground water recharge (GWR).
- 4. Order No. R4-2003-0079 prescribes the following final effluent limitations for protection of the AGR and GWR beneficial uses:

		Effluent Limitations	
Constituent	Units	Monthly Average	Daily Maximum
Total dissolved solids (TDS)	mg/L	850	
	lbs/day	47,900	
Sulfate	mg/L	250	
Sullate	lbs/day	14,000	

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		Effluent Limitations	
Constituent	Units	Monthly Average	Daily Maximum
Chloride (routine conditions)	lbs/day	2,300 ¹	
Chloride (drought conditions)	lbs/day	$2,200^2$	

The final effluent limitations for TDS and sulfate were based upon Water Quality Objectives in the *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The final effluent limitations for chloride were based upon the Waste Load Allocations (WLAs) promulgated by USEPA in 2002 in the *Calleguas Creek Chloride Total Maximum Daily Load* (*Chloride TMDL*).

5. Also on June 5, 2003, concurrent with adoption of Order No. R4-2003-0079, this Regional Water Board adopted Time Schedule Order (TSO) No. R4-2003-0080, which prescribed the following interim effluent limit for chloride:

		Interim Effluent Limitations		
Constituent	Units	Monthly Average	Daily Maximum	
Chlorida	mg/L		190	
Chloride	lbs/day		10,700	

- 6. On July 7, 2003, the CSD filed a petition with the State Water Resources Control Board (State Water Board) seeking, in part, review of the chloride effluent limitations in Order No. R4-2003-0079 and TSO No. R4-2003-0080. CSD later requested that the State Water Board issue a stay of those limitations.
- 7. On October 20, 2003, CSD, the City of Thousand Oaks, the City of Simi Valley and this Regional Water Board entered into a stipulation entitled *Stipulation for Further Order Issuing Stay*, which stayed the final chloride effluent limitations in the NPDES permits, as well as provisions pertaining to chloride limits in TSOs, for those three wastewater treatment plants. Specifically to the Camarillo WRP, the stipulation stayed the final chloride effluent limitations in Order No. R4-2003-0079 and the interim chloride effluent limitations in TSO No. R4-2003-0080. On November 19, 2003, the State Water Board adopted Order WQO 2003-0019 approving the stipulation.
- On April 2, 2007, the Executive Officer administratively issued TSO No. R4-2007-0010 to the CSD for its Camarillo WRP. The TSO, which expired on January 31, 2011, contained the following performance-based interim effluent limitations calculated using the ninetyfifth percentile of the Camarillo WRP's effluent data from August 2003 through May 2006:

This is the chloride waste load allocation (WLA) under routine conditions, pursuant to the *Calleguas Creek Chloride Total Maximum Daily Load (Chloride TMDL)* promulgated by the United States Environmental Protection Agency (USEPA) on March 22, 2002.

This is the chloride WLA under drought conditions, pursuant to the *Chloride TMDL* promulgated by USEPA on March 22, 2002.

Constituent	Units	Interim Effluent Limitations	
Constituent		Monthly Average	Daily Maximum
TDS	mg/L	1016	
	lbs/day	57,200	
Sulfate	mg/L	265	-
	lbs/day	14,900	

An interim effluent limitation for chloride was not provided in TSO No. R4-2007-0010 because the stipulated stay on the chloride effluent limitation approved by the State Water Board remained in effect.

9. On October 4, 2007, the Regional Water Board adopted Resolution No. R4-2007-016, Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) for Calleguas Creek Watershed (Salts TMDL). The Salts TMDL, which became effective on December 2, 2008, contains the following interim and final WLAs for the Camarillo WRP:

Constituent	Interim Monthly Average WLA (mg/L)	Final WLA (lb/day) ³
TDS	1012	850* Q - AF
Sulfate	283	250* Q - AF
Chloride	216	150* Q - AF
Boron	N/A	N/A

The WLAs for chloride contained in the Regional Water Board's *Salts TMDL* superseded the WLAs for chloride contained in the 2002 USEPA-promulgated *Chloride TMDL*.

10. In 2008, tentative waste discharge requirements prepared for the Camarillo WRP, and for other wastewater treatment plants in the Calleguas Creek watershed, were provided to interested persons and comments were solicited. However, Regional Water Board staff ultimately chose not to take those tentative waste discharge requirements to the Regional Water Board for consideration since, at that time, the State Water Board was in the process of developing a state-wide policy for chronic toxicity that could impact how the Regional Water Board implements Resolution No. R4-2005-009, Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Toxicity, Chlorpyrifos, and Diazinon in Calleguas Creek, its Tributaries, and Mugu Lagoon (Toxicity TMDL), in these waste discharge requirements. As of the date of this Order, the State Water Board's policy for chronic toxicity is still under development, which has delayed consideration of a renewed permit for Camarillo WRP and the other wastewater treatment plants in the Calleguas Creek watershed. Accordingly, the Regional

AF represents the adjustment factor, which equals the difference between the minimum salts export requirement and the actual salts export.

Q represents the POTW flow at the time the water quality measurement is collected and a conversion factor to lbs/day based on the units of measurement for the flow.

Water Board has not incorporated the interim and final WLAs in the *Salts TMDL* as effluent limitations within the NPDES permit for the Camarillo WRP.

- 11. On December 7, 2010, the CSD submitted a letter to the Regional Water Board requesting an extension of the TDS and sulfate interim effluent limits in TSO No. R4-2007-0010. The CSD listed the following reasons to justify their request:
 - a. CSD's current treatment processes are unable to treat dissolved salts, such as TDS, sulfate, and chloride, in the potable water supply.
 - b. CSD and other stakeholders within Calleguas Creek Watershed have developed regional solution strategies to address the salt accumulation problem that is impairing surface waters, such as:
 - i. finding locations for brackish groundwater treatment facilities,
 - ii. constructing a regional salinity management pipeline also known as a "brine line", and
 - iii. increasing recycled water usage.

As an attachment to their letter, CSD submitted tabulated effluent water quality data for TDS and sulfate from January 2007 to October 2010.

- 12. TSO No. R4-2007-0010 expired on January 31, 2011. At that time, CSD was not eligible for another TSO under California Water Code (CWC) section 13385(j)(3)(B)(i) that would shield CSD from mandatory minimum penalties for violations of the final effluent limitations for TDS and sulfate, because Order No. R4-2003-0079 did not contain new, more stringent, or modified effluent limitations when compared to those found in the previous permit.
- 13. To provide CSD with higher interim effluent limitations based on the interim WLAs in the Salts TMDL, Regional Water Board staff proceeded to prepare a tentative NPDES permit, circulated it for public comment, received comments, responded to those comments, subsequently distributed a revised tentative NPDES permit, and noticed consideration of the permit for renewal at the April 14, 2011, Regional Water Board meeting.
- 14. On April 14, 2011, the Regional Water Board held a hearing to consider adoption of the proposed tentative NPDES permit for the Camarillo WRP. However, CSD testified that the interim effluent limits for salts (such as TDS, sulfate and chloride), based upon the interim WLAs in the Salts TMDL, would be unattainable during the period of time in which the Permittee has committed to constructing and finishing capital improvement projects to comply with the WLAs specified in the Salts TMDL. CSD requested higher performance-based interim effluent limits, stating that the concentrations of chloride, TDS, and sulfate in their potable water supply have increased since the time that the Salts TMDL was developed. The Regional Water Board directed its staff to pursue alternatives with the Permittee to resolve salts issues while implementing the regional salinity management pipeline solution.

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- 15. On May 6, 2011, CSD submitted a letter requesting a TSO under CWC section 13385(j)(3)(B)(iii) and included the following supporting documentation:
 - a. A chronology of events that explained the City of Camarillo's unanticipated increase on the reliance of local groundwater as a source of potable water, that resulted from mandatory reductions in water use instituted by Metropolitan Water District (MWD) in July 2009. In order to implement the Water Supply Action Plan that was adopted by the MWD Board of Directors, member MWD agencies such as the Calleguas Municipal Water District supplied less imported water to Camarillo. Subsequently, Camarillo relied increasingly more on local groundwater which has a higher salt content than imported water. This ultimately resulted in unavoidable composition changes in Camarillo's potable water, influent and effluent. Consequently, CSD has exceeded its final effluent limitations by a larger margin;
 - b. Water quality data for its blended potable water supply (consisting of local groundwater from wells and imported water from MWD, the only available sources of potable water available to Camarillo) that showed, in Table 3 of their letter, that average concentrations for TDS, sulfate and chloride increased by 32%, 31%, and 20%, respectively, when comparing data between the periods of January 2004 to December 2006 and January 2007 to March 2011;
 - c. In an attachment to their letter titled *Groundwater vs. Import Water*, CSD provided quantity data for its blended water supply that showed that the amount of imported water from MWD has been steadily decreasing (by 728 acre-feet a year from 2008 to 2009, and by 1037 acre-feet a year from 2009 to 2010);
 - d. Additional final effluent data for chloride, TDS, and sulfate from November 2010 to March 2011; and,
 - e. Milestones and completion dates for capital improvement projects, which will take longer than thirty days to install and put into operation, including:
 - Constructing a connection from Camarillo WRP to Calleguas Municipal Water District's brine line by December 2013, and discharging to the brine line achieving compliance with the salts final effluent limitations between June and December 2014; and
 - ii. Constructing a connection from the Camarillo well desalting facilities to the Calleguas Municipal Water District's brine line by December 2015.
- 16. On July 10, 2013, CSD submitted a letter requesting an additional year to complete the milestone deadlines included on page 8 of this TSO. CSD staff informed Regional Water Board staff that additional time was needed to: design and construct a metering station for the brine line connection; amend the CEQA document for their project to address comments received during the public review period; conduct additional technical studies; perform biological/habitat fieldwork; gather additional stream flow information; and re-circulate the

CEQA document for public comment. Regional Water Board staff evaluated the request and modified completion dates as requested, granting an additional year.

- 17. CSD's conditions are unique because:
 - a. Their discharge is located a few miles upstream of a tidally-influenced reach of Calleguas Creek;
 - b. CSD worked effectively for many years to develop a regional solution to remedy salt impairments; and,
 - c. The solution involves desalting groundwater and building a regional brine line which will resolve surface water impairments as well as improve groundwater quality in the watershed.
- 18. NPDES Order No. R4-2014-XXXX, adopted by the Regional Water Board on May 8, 2014, prescribes the effluent limitations for TDS, chloride, and sulfate based upon the *Salts TMDL* presented in the Table below.

Effluent Limitations Units Average Average Maximum **Parameter Monthly** Weekly **Daily** lbs/day Total dissolved solids (dry weather⁴) 51,400⁵ --Total dissolved solids (wet weather⁴) mg/L 850 Sulfate (dry weather⁴) lbs/day $15,100^{5}$ --Sulfate (wet weather⁴) mg/L 250

Table 1. Final Effluent Limitations

Q represents the POTW effluent flow at the time the water quality measurement is collected and a conversion factor to lbs/day based on the units of measure for the flow.

AF represents the adjustment factor, which equals the difference between the minimum salts export requirement and the actual salts export. The minimum salts export requirement for Chloride = 460 lbs/day. The AF term is equal to zero since the Regional Board has not approved an AF for a facility. As a result, the AF term drops out of the equation, and the final effluent limitations are expressed as follows:

Chloride, lbs/day = $150 \times Q = 150 \times 7.25 \times 8.34 = 9,070$ TDS, lbs/day = $850 \times Q = 850 \times 7.25 \times 8.34 = 51,400$ Sulfate, lbs/day = $250 \times Q = 250 \times 7.25 \times 8.34 = 15,100$

This dry-weather final effluent limitation for chloride shall apply on January 1, 2016. See section VII.O. of the NPDES Order for definition of dry- and wet-weather.

These final effluent limitations are consistent with the following *Salts TMDL*Waste Load Allocations: (850 x Q – AF) for TDS; (250xQ – AF) for sulfate; and (150xQ – AF) for chloride, where:

			Effluent Limitations		
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	
Chloride (dry weather ⁴)	lbs/day	9,070 ⁵			
Chloride (wet weather ⁴)	ma/L	150			

- 19. Upon the effective date of NPDES Order No. R4-2014-XXXX, the stay for the chloride effluent limitations, associated with the former NPDES permit and TSO, contained in the State Water Board's WQO No. 2003-0019 will dissolve.
- 20. The Discharger cannot consistently meet the final effluent limitations listed above in Table 1 on their respective compliance dates.
- 21. On February 13, 2014, the Discharger requested in writing a TSO for TDS, chloride and sulfate, under CWC section 13385(j)(3)(B)(iii) and included supporting documentation indicating that the conditions described in finding 15 still continue.
- 22. Section 13300 of the CWC states:

"Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."

- 23. Based on monitoring data, the Permittee cannot consistently achieve compliance with the final effluent limitations for TDS, chloride, and sulfate in Order No. R4-2014-XXXX. Accordingly, pursuant to CWC section 13300, a discharge of waste is taking place and/or threatens to take place that violates requirements prescribed by the Regional Water Board.
- 24. Water Code section 13385, subdivisions (h) and (i), require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all of the [specified] requirements are met." (emphasis added).
- 25. In accordance with CWC section 13385(j)(3)(B)(iii), the Regional Water Board finds that: (a) unanticipated changes in the quality of the municipal or industrial water supply available to the Permittee are the cause of unavoidable changes in the composition of the waste discharge, (b) the changes in the composition of the waste discharge are the cause of the inability to comply with the final effluent limitations for TDS and sulfate, (c) no alternative water supply is reasonably available to the Permittee, and (d) new or modified

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- 26. Since the time schedule for completion of the actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of this TSO, this TSO includes interim requirements and the dates for their achievement. The interim requirements include both interim effluent limitations for TDS, chloride, and sulfate and actions and milestones leading to compliance with the final effluent limitation for these pollutants. This TSO does not exceed five years.

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- 27. This TSO establishes interim effluent limits for TDS and sulfate and requires the Permittee to undertake specific actions to put the Permittee on the path towards compliance with the final effluent limitations for TDS, chloride, and sulfate in Order No. R4-2014-XXXX. The established time schedule is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the final effluent limitations for TDS, chloride, and sulfate. The Permittee is on a path to compliance via the regional salinity management pipeline and associated facilities.
- 28. The monthly average interim effluent limits for TDS, chloride, and sulfate prescribed in this TSO are performance-based values set at the ninety-fifth percentile, derived from final effluent data, using MINITAB, the same statistical software used in the *Salts TMDL* development.
- 29. CWC section 13385(j)(3)(D) requires the Permittee to prepare and implement a Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3. Therefore, a PPP will be necessary for TDS and sulfate.
- 30. A TSO is appropriate in these circumstances to allow time for the Permittee to complete capital improvement projects that will bring the Camarillo WRP into compliance with the final effluent limits for TDS and suflate. These capital improvement projects cannot be designed, installed, and put into operation within 30 calendar days. The temporary TDS and sulfate exceedances allowed by this TSO are in the public interest given the significant environmental benefits associated with promptly achieving compliance with the final effluent limitations for these pollutants.
- 31. Pursuant to CWC section 13385(j)(3), full compliance with the requirements of this TSO exempts the Permittee from mandatory minimum penalties only for violations of the final effluent limitations for TDS, chloride, and sulfate in Order No. R4-2014-XXXX that occur after the effective date of this TSO.
- 32. This TSO concerns an existing facility and does not significantly alter the status with respect to the facility. This TSO is also being taken for the protection of the environment. Therefore, issuance of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et.seq.) in accordance with sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations (CCR).

- 33. The Regional Water Board has notified the Permittee and interested agencies and persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Regional Water Board, in a public hearing, heard and considered all testimony pertinent to this matter.
- Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and CCR, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action 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 filina petitions may be found on Internet applicable the http://www.waterboards.ca.gov/public notices/petitions/water quality or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to CWC section 13300, CSD, as owner and operator of the Camarillo WRP, shall comply with the requirements listed below to ensure compliance with the final effluent limitations for TDS, chloride, and sulfate contained in Order No. R4-2014-XXXX:

1. Comply immediately with the following interim effluent limits, which shall be deemed effective from May 8, 2014 to December 31, 2015:

Constituent	Units	Monthly Average	Daily Maximum
TDS	mg/L	1242 ⁶	
103	lbs/day 7	75,100	
Sulfate	mg/L	359 ⁶	
Sulfate	lbs/day ⁷	21,700	
Chloride	mg/L	259 ⁶	
	lbs/day ⁷	15,700	

If the analytical result of a single sample, monitored monthly, exceeds the monthly average interim effluent limitation for that constituent, CSD may collect up to four additional samples, at approximately equal intervals during that calendar month, to determine compliance with the monthly average interim effluent limitation.

This interim effluent limitation is based on effluent performance data from February 2007 through October 2012 for the Camarillo WRP. Consistent with the procedure contained in *Appendix E* of *USEPA's Technical Support Document For Water Quality-based Toxics Control* (USEPA's TSD), the monthly average was set at the 95th percentile. The interim limit was derived statistically from a probability plot, using the MINITAB statistical software, Release 14.

The mass emission rates are based on the existing plant design flow rate of 7.25 million gallons per day (mgd), and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = mass emission rate (lbs/day). During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

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2. Complete the capital improvement projects according to the schedule proposed by CSD in their letter dated July 10, 2013, as follows:

Item	Completion Date
Build a connection from CSD's WRP to the Calleguas Municipal Water District brine line under Phase 2A	December 2014
Discharge from CSD to the brine line	December 2015

- 3. Achieve full compliance with the final effluent limitations as soon as possible, but no later than December 31, 2015, the date by which CSD committed to achieving compliance, for TDS and sulfate contained in Order No.R4-2014-XXXX.
- 4. Submit a Pollution Prevention Plan (PPP) work plan, with the time schedule for implementation, for approval of the Executive Officer no later than August 8, 2014, pursuant to CWC section 13263.3.
- 5. Submit quarterly progress reports of efforts taken by the Permittee towards achieving compliance with the final effluent limits for TDS and sulfate. The reports shall summarize the progress to date, activities conducted during that quarter, and the activities planned for the upcoming quarters. The reports shall also state whether or not Camarillo SD was in compliance with the interim effluent limitations for TDS and sulfate during the reporting period. Each quarterly report shall be received by the Regional Water Board by the 15th day of the first month following the reporting period (January 15, April 15, July 15, and October 15). The first progress report shall be received by the Regional Water Board by October 15, 2014, and will cover the months of July 2014 through September 2014.
- 6. Any person signing a document submitted under this TSO 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."
- 7. If the Permittee fails to comply with any provision of this TSO, the Regional Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, is authorized to take appropriate enforcement action pursuant, but not limited to, CWC sections 13350 and 13385. The Regional Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.

- 8. All other provisions of NPDES Order No. R4-2014-XXXX not in conflict with this TSO are in full force and effect.
- 9. The Regional Water Board may reopen this TSO at its discretion or at the request of the Permittee, if warranted. Lack of progress towards compliance with this TSO may be cause for the Regional Water Board to modify the conditions of this TSO.
- 10. This TSO becomes effective immediately upon adoption by the Regional Water Board. This TSO expires on December 31, 2015.
- 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, on May 8, 2014.

Samuel Unger, P.E. Executive Officer

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