

Annual Report for Year 1 (2023-2024) of the Time Limited Water Quality Standard for Chloride

May 30, 2024

Prepared by Ozinga Ready Mix – Lumber Street



Ozinga Ready Mix is a member of the
Chicago Area Waterways Chloride
Workgroup

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1.0 Introduction to Chloride Issue in CAWS/LDPR

This Pollutant Minimization Plan (PMP) has been prepared by Ozinga Ready Mix to reduce the environmental impacts from the organization's chloride related operations. Ozinga Ready Mix is a discharger covered under the Time Limited Water Quality Standard for Chloride for the Chicago Area Waterways System and Lower Des Plaines River watersheds. This PMP has been prepared to meet the requirements laid out in the Time Limited Water Quality Standard (TLWQS) for Chloride. The term of this PMP covers the first 5-years of the TLWQS period and will be updated following the re-evaluations at Years 4 ½, 9 ½, and 14 ½.

Chloride is a permanent pollutant. It does not degrade over time and continues to accumulate in the environment. Proactive measures to reduce the amount of chloride discharged can help reduce the impacts from chloride on receiving waterways and the environment. Chloride impacts aquatic life, vegetation, and infrastructure. As the chloride concentrations increase and our waters become saltier, aquatic and plant biodiversity decreases and native species are overtaken by salt tolerant invasive species.

Chlorides are commonly found in road salt, fertilizers, water softeners, dust suppressants, and certain industrial processes. Chloride-based deicers, like rock salt, are used on parking lots, sidewalks, and roads to provide safe surfaces to the public during the winter months. These deicers are one of most common sources of chloride in the Chicago region.

The water quality standard for chloride for the Chicago Area Waterway System (CAWS) was updated as part of the rulemaking process related to changing the designated use of the CAWS. The chloride standard was updated from 1,500 mg/L during the winter and 500 mg/L during the summer to 500 mg/L all year round. The change in the chloride water quality standard took effect in 2018. Because portions of the CAWS were not going to meet this new standard due to the need to maintain public safety on roads, highways, sidewalks and parking lots during the winter months, a joint submittal and supporting individual petitions were submitted between 2015 and 2018 to the Illinois Pollution Control Board for a variance from the chloride standard. The joint petition laid out best management practices that can be achieved by the petitioners to reduce their chloride use while maintaining public safety during winter storms. In addition to the CAWS, portions of the Lower Des Plaines River watershed were included as it receives water from the CAWS.

On November 4, 2021, the IPCB issued an Opinion and Order for a Time Limited Water Quality Standard (TLWQS) for Chloride for portions of the CAWS and Lower Des Plaines River watersheds. The TLWQS for Chloride watersheds are defined in the Opinion and Order as the Des Plaines River watershed from the Kankakee River to the Will County Line (except for the DuPage River watershed) and the CAWS watershed (except the North Branch Chicago River watershed upstream of the North Shore Channel and those portions of the watershed located in Indiana). This is a watershed-based approach to reduce the chloride concentrations in the CAWS and Lower Des Plaines River. The TLWQS for Chloride requires all dischargers covered under the TLWQS for Chloride to create PMPs and implement specific best management practices based on their operations to reduce their chloride discharges.

2.0 Organization, Facility Information

Agency Name: Ozinga Ready Mix		
Facility Name: Ozinga Ready Mix		Permit Number: IL103041
Facility Address: 2255 South Lumber Street		
City: Chicago	State: Illinois	Zip Code: 60616

2.1 Level of Service for Winter Maintenance Activities

3.0 Best Management Practices

Details regarding Ozinga Ready Mix's implementation of the best management practices (BMPs) identified as part of the TLWQS for Chloride are included below.

Workgroup BMP

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
The permittee must participate in a Chlorides workgroup for the CAWS or LDPR, depending on the watershed within which the facility's discharge is located.	Ozinga Ready-Mix has been a member of the Lower Des Plaines Watershed Group since 2022. Staff has attended regular meetings and training sessions.

Salt Storage and Handling BMPs

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
Store all salt on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt unless the salt is stored in a container that ensures stormwater does not come into contact with the salt.	All salt is stored on impermeable pads or bags.
Cover salt piles at all times except when in active use, unless stored indoors.	Salt is covered by Ozinga Ready-Mix unless it is in active use.
For working areas, provide berms and or sufficient slope to allow snow melt and stormwater to drain away from the area. If snow melt and stormwater cannot be drained away from the working area,	The site is sloped so stormwater does not flow directly into the river.

channeling water to a collection point such as a sump, holding tank or lined basin for collection, discharge at a later time, use for prewetting, and use for make-up water for brine must be considered.	
MS4/CSO Only - Use deicing material storage structures for all communities covered under General Permit ILR40 for MS4 communities.	N/A
<p>Good housekeeping practices must be implemented at the site, including:</p> <ul style="list-style-type: none"> • cleanup of salt at the end of each day or conclusion of a storm event; • tarping of trucks for transportation of bulk chloride; • maintaining the pad and equipment; • good practices during loading and unloading; • cleanup of loading and spreading equipment after each snow/ice event; • a written inspection program for storage facility, structures and work area; • removing surplus materials from the site when winter activity finished where applicable; • annual inspection and repairs completed when practical; • evaluate the opportunity to reduce or reuse the wash water. 	Ozinga Ready-Mix uses good housekeeping practices for winter road salt related work including loading, salt deliveries, and facility inspections.

Winter Maintenance Operations BMPs

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
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Calibrate all salt spreading equipment at least annually before November 30th. Records of the calibration results must be maintained for each piece of spreading equipment.	Salt is applied by hand or through a push spreader. Ozinga Ready-Mix will minimize the salt used at the site while tracking the amount used.
Pre-wet road salt before use, either by applying liquids to the salt stockpile, or by applying liquids by way of the spreading equipment as the salt is deposited on the road.	Ozinga Ready-Mix will look to implement this practice in the future, but most salt is pre-bagged and applied by hand.
Use equipment to measure the pavement temperature unless such equipment has already been installed on road salt spreading vehicles.	Ozinga Ready-Mix observed conditions of the ground to determine if the temperature is above or below 32F.
Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.	Ozinga Ready-Mix observed conditions of the ground to determine if salt should be applied.
Track and record salt quantity used and storm conditions from each call-out.	The amount of salt used at each occurrence was recorded.
Develop a written plan for implementation of anti-icing, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.	Ozinga Ready-Mix used Anti-Icing measures as part of its winter operations. Information will be provided in the facility's Snow and Ice Plan.
Provide employees involved in winter maintenance operations with annual training before November 30th on best management practices in the use of road salt in operations, including the practice of plowing first and applying salt only after snow has been cleared.	Ozinga Ready Mix completed Annual Training in October 2023. Annual training will continue in future years.
Be responsible for complying with all applicable BMPs even when deicing practices are contracted out and ensure that	Ozinga Ready Mix will assure contractors will perform BMPs when applicable.

contractors are property trained and comply with all applicable BMPs.	
Complete an annual report, as required by paragraph 3(B) of this order, which is standardized in an electronic format and submitted to the IEPA's website and to the watershed group.	Ozinga Ready-Mix will complete and submit an annual report each year to IEPA and the workgroup by July 1.
Obtain and put into place equipment necessary to implement all salt spreading/deicing measure specified in this BMP, such as any new or retrofitted salt spreading equipment necessary to allow for pre- wetting and proper rates of application.	All applicable measures have been implemented.
MS4/CSO/IDOT/TOLLWAY Only - Install equipment to measure the pavement temperature on the winter maintenance fleet for a sufficient number of vehicles to provide sufficient information to adjust application rates for the most efficient levels. Develop and complete a plan to equip the winter maintenance fleet before the first re-evaluation.	N/A
MS4/CSO/IDOT/TOLLWAY Only - Before the first re-evaluation, develop a method for conducting a post-winter review to identify areas of success and areas in need of improvement. Items to be completed as part of the review must include, but are not limited to, an evaluation of each salt spreader's application rate, variations in application rates, and discussion of the variation compared to the recommended rates. Once developed, the review should occur annually in the spring/early summer following each winter season.	N/A

Additional BMPs Identified for Agency/Facility

BMP	Agency Description of Current Implementation
N/A	N/A

3.1 Analysis of BMPs Implemented

The BMP's implemented limited chloride exposure to outfalls for the Winter 2023-2024 season.

3.2 Analysis of Alternative Treatments or New Technology

N/A

4.0 Deicing/Anti-Icing Agents Used

Rock salt was used by Ozinga Ready-Mix for the 2023-24 winter season for deicing purposes:

4.1 Application Rates

The application rates used by Ozinga Ready-Mix for the 2023-2024 winter season were estimated. These can be seen in the attached tables.

4.1.1 Application Rate Analysis

The application rates used by Ozinga Ready-Mix for the 2023-2024 winter season were estimated. These can be seen in the attached tables.

4.2 Application Practices

Ozinga Ready-Mix uses the following practices to apply deicing and anti-icing Ready-Mix:

- Hand distribution
- Truck distribution

4.3 Call Outs

Call out days were tracked and/or estimated for the 2023-2024 Winter Season.

4.4 Use of Liquids

Liquids were not used in the 2023-2024 Winter Season.

5.0 Training

Ozinga Ready-Mix completed annual training in October 2023.

6.0 Deicing and Snow Removal Equipment

Ozinga Ready-Mix applies road salt by hand distribution and/or salt spreader.

7.0 Material Storage

Ozinga Ready Mix maintains a number of storage areas. A map of the site and its respective Ready-Mix are attached to this report.

8.0 Capital Purchases

There have been no capital purchases related to salt treatment equipment.

8.1 Explanation of Capital Purchases Unable to Be Made According to the Reported Plan

Not applicable

9.0 Environmental Monitoring Data

Chloride monitoring data is collected for the CAWS and Lower Des Plaines River watersheds per the IPCB order. The data is maintained by the workgroups. Chloride data for the CAWS is collected by MWRD for the CAWS watershed and provided to the workgroups as part of the annual reporting as required by the IPCB order. The Lower Des Plaines Watershed Group also maintains a USGS monitoring station in the Des Plaines River at Channahon, IL that collects continuous conductivity data to estimate chloride concentrations.

Chloride monitoring data reports are posted to <https://www.cawswatershed.org/reports/> and <https://ldpwatersheds.org/about-us/lower-des-plaines-watershed-group/our-work/chloride-tlwqs/>.

9.1 Organization Specific Chloride Monitoring Data

No sampling is required for this site.

9.2 Changes to the Facility's NPDES Treatment Technologies for Chloride

Not applicable.

10.0 Program Evaluation

10.1 Proposed Steps for the Coming Year

- Perform required training
- Monitor salt usage
- Analyze BMP's.

11.0 Workgroup Participation

Ozinga Ready-Mix will continue to participate in the CAWS Workgroup in the upcoming year.

Ozinga Ready Mix
Salt Quantity Usage - Chinatown

Callout Date	Time	Pavement Temperature	Quantity of Salt Used on-site
11/27/2023	Varies	Around Freezing Temperatures	Est. 4,000 lbs
12/4/2023	Varies	Around Freezing Temperatures	Est. 4,000 lbs
12/5/2023	Varies	Around Freezing Temperatures	Est. 4,000 lbs
1/8/2024	Varies	Around Freezing Temperatures	Est. 4,000 lbs
1/11/2024	Varies	Around Freezing Temperatures	Est. 4,000 lbs
2/15/2024	Varies	Around Freezing Temperatures	Est. 4,000 lbs
3/22/2024	Varies	Around Freezing Temperatures	Est. 4,000 lbs

Calibration Records

Date	Type of Equipment	Amount of Salt Spread per Time Period	Initials
Estimate*	Push Salt Spreader	50 lbs/min	MS
Estimate*	Hand Spreader	25 lbs/min	MS

Ozinga Ready-Mix
2255 S. Lumber St.
Chicago, IL 60616
Feb. 1, 2019
Tier II id. : 014151
Lat./Long. : 41.852/-87.642

- 1-Diesel UST
- 2-Plant 110: Cement, fly ash and slag in silos. Admixtures & CaChloride inside.
- 3-Plant 111: same. Calcium chloride outside
- 4-Warehouse

