

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

VILLAGE OF HOMEWOOD, HOMEWOOD)	
ILLINOIS, VILLAGE OF ORLAND PARK,)	
ORLAND PARK ILLINOIS, VILLAGE OF)	
MIDLOTHIAN, MIDLOTHIAN ILLINOIS,)	
VILLAGE OF TINLEY PARK, TINLEY PARK)	
ILLINOIS, EXXONMOBIL OIL)	
CORPORATION, VILLAGE OF WILMETTE,)	
WILMETTE ILLINOIS, CITY OF COUNTRY)	
CLUB HILLS, COUNTRY CLUB HILLS)	
ILLINOIS, NORAMCO-CHICAGO, INC.,)	
FLINT HILLS RESOURCES JOLIET LLC,)	
CITY OF EVANSTON, EVANSTON ILLINOIS,)	
VILLAGE OF SKOKIE, SKOKIE ILLINOIS,	)	PCB 16-14 (Homewood)
ILLINOIS DEPARTMENT OF	)	PCB 16-15 (Orland Park)
TRANSPORTATION, METROPOLITAN	)	PCB 16-16 (Midlothian)
WATER RECLAMATION DISTRICT OF	)	PCB 16-17 (Tinley Park)
GREATER CHICAGO, VILLAGE OF	)	PCB 16-18 (ExxonMobil)
RICHTON PARK, RICHTON PARK ILLINOIS,	)	PCB 16-20 (Wilmette)
VILLAGE OF LINCOLNWOOD,	)	PCB 16-21 (Country Club Hills)
LINCOLNWOOD ILLINOIS, CITY OF OAK	)	PCB 16-22 (Noramco-Chicago)
FOREST, OAK FOREST ILLINOIS, VILLAGE	)	PCB 16-23 (Flint Hills Resources)
OF LYNWOOD, LYNWOOD ILLINOIS,	)	PCB 16-25 (Evanston)
CITGO HOLDINGS, INC., VILLAGE OF NEW	)	PCB 16-26 (Skokie)
LENOX, NEW LENOX ILLINOIS, CITY OF	)	PCB 16-27 (IDOT)
LOCKPORT, LOCKPORT ILLINOIS,	)	PCB 16-29 (MWRDGC)
CATERPILLAR, INC., CITY OF CREST HILL,	)	PCB 16-30 (Richton Park)
CREST HILL ILLINOIS, CITY OF JOLIET,	)	PCB 16-31 (Lincolnwood)
JOLIET ILLINOIS, MORTON SALT, INC.,	)	PCB 16-33 (Oak Forest)
CITY OF PALOS HEIGHTS, PALOS HEIGHTS	)	PCB 19-7 (Village of Lynwood)
ILLINOIS, VILLAGE OF ROMEOVILLE,	)	PCB 19-8 (Citgo Holdings)
ROMEOVILLE ILLINOIS, IMTT ILLINOIS	)	PCB 19-9 (New Lenox)
LLC, STEPAN CO., VILLAGE OF PARK	)	PCB 19-10 (Lockport)
FOREST, PARK FOREST ILLINOIS, OZINGA	)	PCB 19-11 (Caterpillar)
READY MIX CONCRETE, INC., OZINGA	)	PCB 19-12 (Crest Hill)
MATERIALS, INC., MIDWEST MARINE	)	PCB 19-13 (Joliet)
TERMINALS LLC, VILLAGE OF MOKENA,	)	PCB 19-14 (Morton Salt)
MOKENA ILLINOIS, VILLAGE OF OAK	)	PCB 19-15 (Palos Heights)
LAWN, OAK LAWN ILLINOIS, VILLAGE OF	)	PCB 19-16 (Romeoville)
DOTON, DOTON ILLINOIS, VILLAGE OF	)	PCB 19-17 (IMTT Illinois)
GLENWOOD, GLENWOOD ILLINOIS,	)	PCB 19-18 (Stepan)
VILLAGE OF MORTON GROVE, MORTON	)	PCB 19-19 (Park Forest)
GROVE ILLINOIS, VILLAGE OF LANSING,	)	PCB 19-20 (Ozinga Ready Mix)
LANSING ILLINOIS, VILLAGE OF	)	PCB 19-21 (Ozinga Materials)
FRANKFORT, FRANKFORT ILLINOIS,	)	PCB 19-22 (Midwest Marine)

VILLAGE OF WINNETKA, WINNETKA	)	PCB 19-23 (Mokena)
ILLINOIS, VILLAGE OF LA GRANGE, LA	)	PCB 19-24 (Oak Lawn)
GRANGE ILLINOIS, VILLAGE OF	)	PCB 19-25 (Dolton)
CHANNAHON, CHANNAHON ILLINOIS,	)	PCB 19-26 (Glenwood)
COOK COUNTY DEPARTMENT OF	)	PCB 19-27 (Morton Grove)
TRANSPORTATION AND HIGHWAYS,	)	PCB 19-28 (Lansing)
VILLAGE OF NILES, NILES ILLINOIS,	)	PCB 19-29 (Frankfort)
SKYWAY CONCESSION COMPANY LLC,	)	PCB 19-30 (Winnetka)
VILLAGE OF ELWOOD, ELWOOD ILLINOIS,	)	PCB 19-31 (La Grange)
CITY OF CHICAGO, CHICAGO ILLINOIS,	)	PCB 19-33 (Channahon)
VILLAGE OF CRESTWOOD, CRESTWOOD	)	PCB 19-34 (CCDTH)
ILLINOIS and VILLAGE OF RIVERSIDE,	)	PCB 19-35 (Niles)
RIVERSIDE ILLINOIS	)	PCB 19-36 (Skyway)
	)	PCB 19-37 (Elwood)
Petitioners,	)	PCB 19-38 (Chicago)
	)	PCB 19-40 (Crestwood)
v.	)	PCB 19-48 (Riverside)
)	
ILLINOIS ENVIRONMENTAL PROTECTION	)	(Time-Limited Water Quality
AGENCY,	)	Standard)
	)	(Consolidated)
Respondent.)	

NOTICE OF FILING

To:	Don Brown, Clerk of the Board	Brad Halloran, Hearing Officer
	Illinois Pollution Control Board	Illinois Pollution Control Board
	James R. Thompson Center	James R. Thompson Center
	100 West Randolph, Suite 11-500	100 West Randolph, Suite 11-500
	Chicago, Illinois 60601	Chicago, Illinois 60601
	Via Electronic Mail	Via Electronic Mail
	(SEE PERSONS ON ATTACHED SERVICE LIST)	

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Pollution Control Board ILLINOIS EPA'S RECOMMENDATION, a copy of which is herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION
AGENCY

Dated: April 5, 2019
1021 North Grand Avenue East
PO Box 19276
Springfield, Illinois 62794

By: /s/ Stefanie N. Diers
Stefanie N. Diers
Assistant Counsel
Division of Legal Counsel

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ILLINOIS EPA’S RECOMMENDATION

NOW COMES the Illinois Environmental Protection Agency (Illinois EPA or Agency), by and through one of its attorneys, and in response to the Joint Submittal in Support of Petition for Chloride Time-Limited Water Quality Standard for the Defined Chicago Area Water System/ Des Plaines River Watershed (Joint Petition), pursuant to 35 Ill. Adm Code 104, Subpart E, submits the following recommendation.

PROCEDURAL BACKGROUND

This proceeding involves 49 Petitioners who are seeking a watershed time-limited water quality standard (TLWQS) for chlorides from the Illinois Pollution Control Board (Board). Initially, in 2015, sixteen Petitioners had individually sought a variance from the recently adopted chloride water quality standard. The Board consolidated these petitions, and they were converted

to TLWQS petitions by operation of law in February 2017. Shortly thereafter, the Board established the following classes of dischargers that may be covered by the TLWQS: publicly owned treatment works (POTWs), communities with combined sewer overflow (CSO) outfalls, industrial sources; municipal separate storm sewer systems (MS4s); Illinois Department of Transportation (IDOT) and Illinois Tollway discharges, and salt storage facilities. Village of Homewood, PCB 16-14 (cons.) slip op. at 2 (April 12, 2017). The class of dischargers includes those that discharge into the Des Plaines River watershed from the Kankakee River to the Will County Line (except for the DuPage River watershed) and the Chicago Area Waterways System watershed (except the North Branch Chicago River watershed upstream of the North Shore Channel and those portions of the watershed located in Indiana). Homewood, PCB 16-14 (cons.) slip op. at 2 (June 8, 2017).

The Board determined that the previously-filed petitions for a variance were not in substantial compliance with the requirements for a TLWQS. Homewood, PCB 16-14 (cons.) slip op. at 3 (June 8, 2017). The Board granted those 16 Petitioners and any other member of the discharger classes until July 26, 2018, to file an amended petition. *Id.* Thirty-three other Petitioners have joined in seeking a watershed TLWQS.

The amended petition in this TLWQS proceeding, filed on July 24, 2018, consists of two components: the Joint Petition, and individual submittals for all 49 Petitioners that include discharger specific information. On December 20, 2018, the Board found the Joint Petition to be in substantial compliance. *See* PCB 16-14 at 5, December 20, 2018. The Agency's recommendation was originally due by February 5, 2019, but the Agency sought, and the Board granted, extensions until April 5, 2019.

PETITIONER'S REQUESTED RELIEF

The Petitioners are seeking a watershed TLWQS from the Board's chloride water quality standard in 35 Ill. Adm. Code 302.407(g)(3) within the Lower Des Plaines River (LDPR) watershed and portions of the Chicago Area Waterway System (CAWS) watershed. The Board established the chlorides water quality standard at issue here pursuant Section 303 of the federal Clean Water Act (CWA), 33 USC §1251(a)(2), which requires states to adopt water quality standards that include designated uses and the criteria to protect such uses. 40 CFR §131.2 (2018). The water quality criteria "represents the conditions (e.g. concentrations of particular chemicals, levels of certain parameters) sufficient to restore and maintain the chemical, physical, and biological integrity of the water bodies and protect applicable designated uses." Water Quality Standards Handbook: Second Edition, Chapter 3: Water Quality Criteria, p.1 (EPA-823-B-17-001). The chlorides water quality standard at issue in this petition is 500 mg/l. J. Sub. at 1.3; *See* 35 Ill. Adm. Code 302.407(g)(3).

The CWA and regulations adopted thereunder by United States Environmental Protection Agency (USEPA) allow for variances from a water quality standard for a limited period of time. *See* 40 CFR 131.14. A water quality standards variance is defined as a "time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the WQS variance." In Illinois, water quality standard variances are called TLWQS. 415 ILCS 5/3.488. USEPA will approve a water quality standard variance if a state can prove, among other things, that attaining the designated use and criterion are not feasible throughout the term of the water quality standard variance because of one of the factors listed in 40 C.F.R. 131.13(10)(g) (10(g) factors). 40 C.F.R.131.14(b)(2)(i)(A)(2).

In this case, the Petitioners ask for a TLWQS for chlorides for 15 years, with a 5-year re-

evaluation cycle. J. Sub. at 10.1. They claim the 500 mg/l chlorides water quality standard is not feasible because of two of the 10(g) factors:

Factor 3: Human cause conditions or sources of pollution prevent the attainment of the designated use and cannot be remedied or would cause more environmental damage to correct than to leave in place.

Factor 6: Widespread economic and social impact would result from controls more stringent than those required by the CWA Section 301(b) and 306.

J. Sub. at 3.1; *See* 35 Ill. Adm. Code 104.560(a)(3), (6); 40 C.F.R. 131.10(g)(3) and (6). During the term of the TLWQS, the Petitioners proposes the highest attainable condition as an interim criterion of a range of values between 269 and 280 mg/l or, alternatively, a single value of 275 mg/l. J. Sub Ch. At 8.2. To achieve the highest attainable condition, the Petitioner propose numerous BMPs for each class of discharger. J. Sub. at 2.8-2.19. Petitioners propose that compliance with the highest attainable condition be evaluated at the end of the first 5-year period of the TLWQS, and calculated as the average of the chloride measurements during the winter months over that 5-year period at downstream locations representative of the CAWS watershed (Chicago Sanitary and Ship Canal at Lockport) and LDPR (Chanahan). J. Sub. at 10.1-10.2.

AGENCY'S RECOMMENDATION

The Board's procedural rules requires the Agency to file a recommendation after the Board determines the Joint Petition is in substantial compliance with the Board's requirements. 35 Ill. Adm. Code 104.550. The Agency's recommendation must include an analysis of (1) petitioner's justification that attainment of the designated use and criterion is not feasible because of one of the 10(g) factors; (2) the petitioner's proposed highest attainable condition; (3) the petitioner's proposed eligibility criteria. 35 Ill. Adm. Code 104.550(b). Furthermore, the Agency's

recommendation must also include any information the Agency believes is relevant to the disposition of the petition, including any past or pending enforcement actions, recommended term of TLWQS, and a list of persons that are seeking coverage under the TLWQS. Finally, the Agency's recommendation must specify the Agency's position on whether the Board should adopt, adopt with conditions or deny the Petitioner's requested TLWQS. *Id.*

The Agency believes the Board should adopt the proposed chlorides TLWQS with conditions. The Agency has attached a list of the conditions it believes should be included if the Board grants the requested relieve in Attachment 1. The Agency has attached a list of the persons seeking coverage under the TLWQS as Attachment 2. The Agency has attached information it believes relevant to the disposition of this Joint Petition in Attachment 3 through Attachment 5.

10(g) Factors Analysis: Attainment of the Designated Uses Are Not Feasible

Petitioners claim that attainment of the designated use and chloride water quality standard is not feasible primarily because of factor 3 (human caused conditions or sources of pollution that cannot be remedied or would leave more environmental damage to correct than to leave in place). Petitioners also claim that the TLWQS is justified secondarily under factor 6 (controls more stringent than those required by sections 301(b) and 306 of the CWA would result in a substantial and widespread negative economic and social impact on the public.) While the Petitioners blend their analysis of factors 3 and 6 within the Joint Petition, the Agency believes they have successfully demonstrated both factors.

Petitioners assert that human caused conditions is the primary cause of elevated chlorides in the CAWS and LDPR. J. Sub. at 3.2. Petitioners argue that the current inability to meet the chlorides water quality standard is driven by road salting and de-icing, which is necessary to maintain safe roadways and walking surfaces for travelers. Petitioners present two options for

reducing chlorides to meet the current water quality standard: use of reverse osmosis or reduction or cessation of road salting. *Id.* The Agency agrees that an immediate, substantial reduction or cessation of road salting, while technically feasible, is not a viable option because of the increased risk of loss of human life due to icy and snow-covered roads.

To successfully make a factor 3 demonstration, the Petitioners must do more than identify a human caused condition. Petitioners must show that the human caused condition cannot be remedied or that, in remedying the condition, Petitioners would cause more environmental damage than to leave the human caused condition in place. Both of the Petitioners' options could, in theory, remedy the human caused condition in whole or in part: reverse osmosis would do so by treating road salt that has been washed into sewer systems and is discharged from wastewater treatment plants while BMPs would do so by reducing the amount of salt that is spread in the first instance. As described more fully below, the reverse osmosis option, assuming it is even technically and financially feasible, would not result in a reduction of salt usage and the associated environmental impacts. Reverse osmosis would result in significant additional environmental damage, due to the energy usage associated with running reverse osmosis facilities to remove salt from contaminated stormwater and trucking the residual concentrated brine that results from reverse osmosis long distances (given the lack of proper nearby disposal operations). BMPs, on the other hand, have the potential to remedy the problem without the associated environmental harms and with the substantial benefits expected to occur to the environment and infrastructure due to reducing the overall loading of salt to the environment. Considering that salt can cause environmental harm prior to entering sewer system and not all salt applied for deicing purposes enters sewer systems, BMPs also have the potential to address a larger pool of salt usage and would have the benefit of reducing environmental harm to terrestrial resources and groundwater.

Petitioners state that the installation of reverse osmosis would require large areas of land. For publicly owned treatment works (POTWs), located in the highly urbanized Chicago area, the land is not available. J. Sub. at 2.5. POTWs currently do not own enough land to install reverse osmosis and the surrounding property has already been developed. Petitioners claim that this makes reverse osmosis infeasible. *Id.* at 2.5. The Petitioners make the same assertion for combined sewer overflow outfalls. *Id.* at 2.9. Industrial sources, who also lack the necessary space to install reverse osmosis, face another challenge of fouling reverse osmosis membranes caused by the organic constituents in their effluents. *Id.* at 2.11-12. To prevent fouling, industrial sources would need to install pretreatment such as granular media filtration, activated carbon adsorption and micro or ultrafiltration. *Id.*

In addition to the barriers identified above, the Petitioners also claim that reverse osmosis has high energy costs which will increase the Petitioners' carbon foot print, and that reverse osmosis generates large amounts of brine that would need to be disposed. Finally, the Petitioners claim that reverse osmosis systems have never been successful at a size necessary to treat the large POTWs in the watershed.

During winter months, the Agency calculated that approximately 75% of the chloride loading in the watershed is from salt-spreading activities.¹ The Agency does not believe that requiring reverse osmosis to address non-point source pollution problem is a solution. In addition to the large expense, reverse osmosis produces a high concentration of brine, which would need to be disposed of (discharged) in a way that meets the water quality standards. There are no suitable

¹ The Agency used chloride data from August, September, and October, for years 2013 through 2017, and flow data from the Chicago Sanitary and Ship Canal (CSSC), during the same period to represent a worst-case point source loading of chloride of 3.5 million pounds per day. Based on the flow of the CSSC, during the winter months of December, January, and February, for years 2013 through 2017, when the chloride water quality standard is violated (500 mg/L), the load is estimated at 14.7 million pounds per day. Therefore, the loading of chloride from deicing is greater than 75% of the load during the winter months when a chloride excursion is present.

locations in or around the Chicago area to dispose of the highly concentrated brine. The highly concentrated brine would need to be discharged to a large body of water or injected into the groundwater.

Lake Michigan is a large body of water; however, the Lake Michigan water quality standard was set at 12 mg/l, the background level of Lake Michigan in the 1970's. Lake Michigan lacks the assimilative capacity to accept the high concentration brine while still meeting the chloride water quality standard. The Illinois River is another large body of water that is nearby. If the high concentration brine was discharged to the Illinois River, the discharge would need a mixing zone or allowed mixing. The maximum amount of mixing in the Illinois River is 25 percent of the river. 35 Ill. Adm. Code 302.102(a)(8). Given the limited mixing, the Illinois River lacks sufficient capacity to accept the high concentration brine generated by reverse osmosis.

Another disposal alternative is a deep well injection. However, since many communities in the Chicago area use deep wells as their public water source, deep well injection of the high concentration brine would not be feasible. The Agency has determined that there are no viable options near Chicago for the disposal of high concentration brine.

The Agency believes that it is reasonable to interpret factor 3 to allow for a weighing of compliance options in terms of both their potential for environmental damage and their potential for environmental quality improvement and to select the option that will result in the optimal environmental outcome, even if that option might take longer to fully implement, provided that the optimal environmental option does have the potential to actually remedy the problem.

Petitioners also claim that factor 6 justifies the petition for a TLWQS. Petitioners assert that both reverse osmosis and stopping the use of salt would result in widespread economic and social impact due to the substantial costs for control technologies and public safety risks. J. Sub.

at 3.1-3.2. Cessation of road salting would create an unacceptable increase in risk to public safety and is infeasible. J. Sub. At 3.3 -3.6. The expected environmental harm from the operation of a reverse osmosis wastewater treatment system in this case results in substantial and widespread negative economic and social impact on the public. J. Sub. at 2.6, 2.12. The Agency believes that the first step should be chloride reductions at the source through the implementation of BMPs.

For the above stated reasons, the Agency agrees with the Petitioners that attainment of the designated use and chloride water quality standard is not feasible because of human caused conditions (factor 3) and controls would result in substantial and widespread negative economic and social impact on the public (factor 6).

Highest Attainable Condition Analysis

The highest attainable condition of a watershed must be specified as a quantifiable expression that is one of the following:

- 1) The highest attainable interim use and interim criterion; or
- 2) If no additional feasible pollutant control technology can be identified, the interim use and interim criterion that reflect the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the Board adopts the time-limited water quality standard and with the adoption and implementation of a Pollutant Minimization Program.

35 Ill. Adm. Code 104.565(d)(4)(B). The Agency believes the highest attainable condition in this case must be expressed as set forth in paragraph 2 because, for the reasons set forth above pertaining to factors 3 and 6, proceeding with a pollutant minimization plan comprised of BMPs identified by the Petitioners and modified as proposed by the Agency in this recommendation is justified in light of the environmental harm that would result from reverse osmosis and the foregone benefits of the salt reduction expected to result from implementation of a chloride minimization program. This approach requires the Petitioners to identify the interim use and

interim criterion that reflects the greatest reduction achievable with the currently installed technologies and the adoption and implementation of a pollutant minimization program.

Petitioners propose a reduction of 3-7% chlorides from the implementation of BMPs during the first 5-year period. J. Sub. at 8.2. They propose to evaluate this as a 5-year seasonal average concentration at the downstream representative locations in the watershed. J. Sub. at 8.1. The Joint Petition clearly states that the seasonal average at the most downstream sampling point in the CAWS (Lockport) will be monitored. The Petitioners then describe two other sampling points both in the LDPR, one at Ruby Street Bridge and the other at Channahon. The Petitioners used the five-year seasonal average at Lockport (289 mg/l) to calculate the proposed 3 to 7% reduction. J. Sub. at 8.2. The goal seasonal average concentration in the winter would be between 269 and 280 mg/l. *Id.* If the goal is not met, the Petitioners would evaluate implementing additional measures during the re-evaluation process. *Id.*

The Petitioners also explain that the proposed highest attainable condition will not cause downstream waters to become impaired. Currently the water quality standard is not being met, and therefore, the Petitioners argue, the implementation of BMPs will lower the chloride levels in the watershed and downstream waters. *Id.* at 8.3. The Upper Illinois River is not impaired for chlorides, and the Petitioners state that implementation of the proposed highest attainable condition will not cause an impairment in the Upper Illinois River. *Id.*

The Illinois EPA agrees with Petitioner's characterization of the highest attainable condition for the watershed. The Agency agrees that the proposed highest attainable condition will not conflict with the attainment of downstream water quality standards for chlorides. The Agency recommends that the Petitioners clearly identify the sampling locations and sampling frequencies in a sampling plan. The Agency notes that the chloride concentration in the receiving

stream is dependent on multiple factors, including climate and weather-related events. The Agency is supportive of the Petitioners' proposed highest attainable condition and the use of a multiple-year averaging of the data in the receiving stream. The Agency is concerned that five years of data will not have been generated before the Petitioners' first re-evaluation period because the Petitioners must submit a proposed re-evaluation to the Board approximately 4.5 years after USEPA approves the TLWQS. Therefore, the Agency recommends that the Petitioners use a 4-year seasonal average for the first re-evaluation period.

The Agency believes that the Petitioners' goal of a 3 to 7% reduction of chlorides over the first five years may be too optimistic. The Petitioners have successfully demonstrated that currently the watershed has exceedances of the chlorides water quality standard and that no economically feasible technology is available to remedy the exceedances. Therefore, to remedy the chlorides exceedances, dischargers throughout the watershed² must implement BMPs to reduce the amount of chlorides entering the receiving streams. Until most chloride users located within the watershed have coverage under the proposed chlorides TLWQS, are participating in the chlorides watershed group and are performing the BMPs, chloride reductions will not achieve the desired goals. The Agency does not intend to recommend a lower highest attainable condition, but rather the Illinois EPA wants to inform the Board of the enormity of the task ahead of the workgroup to get chloride users to perform best management practices throughout the watershed.

The Agency recommends the Petitioners implement an adaptive management approach. Under this approach, the Petitioners will have to continually adjust their salt application practices as directed by the Board in the re-evaluation process. This adaptive management approach should take into consideration the varying financial capabilities and resulting implementation barriers or

² Currently, there are 297 NDPES permitted discharges in the CAWS, and 316 outfalls in the LDPR watershed.

successes of the different petitioners. After reviewing the annual reports, petitioners will adjust their BMPs to become more stringent than the BMPs incorporated into the permit. After the completion of the reevaluation process, the pollutant minimization plan and BMPs specified in the Board's reevaluation order will be incorporated into the Petitioners' NPDES permit. The Agency believes this iterative process should continue until the term of the time limited water quality standard has expired or the chlorides water quality standard has been met. If during this process, the highest attainable condition has been achieved, the Agency anticipates the highest attainable condition will be adjusted downward during the re-evaluation process. The adaptive management approach reflects that there is not a "state of the art" technology or practice to achieve immediate compliance, and that an iterative framework is necessary to improve the water quality each year based on experience and learning from the workgroup, the Agency and USEPA. The Agency believes that at least 15 years will be necessary for the benefits an adaptive management approach to be measurable in the waterbodies.

Best Management Practices and Pollution Minimization Programs

The Agency believes the Petitioners successfully argue that reverse osmosis and cessation of road salting are not feasible control methods to ensure the chlorides water quality standard is achieved. Throughout the Joint Petition, Petitioners present a third alternative to achieve compliance with the chlorides water quality standard: "the suite of BMPs . . . which can be reasonable implemented by the dischargers to the watershed, should lead, in over the long term, to significant progress toward compliance with the chlorides standards for the watershed." J. Sub. at 2.4. The Agency agrees, and it believes that implementation of the BMPs must be done across the watershed by as many dischargers as possible to eventually achieve compliance with the chlorides water quality standard.

The Petitioners have proposed substantial lists of BMPs for each class of dischargers. For POTWS and industrial sources, the Petitioners recommend 13 BMPs (Paragraphs 1 through 13) be implemented with their snow/deicing practices. J. Sub. at 2.8 - 2.18. For CSO, MS4 and IDOT/Illinois Tollway dischargers, the Petitioners recommend 2 BMPs (Paragraphs 14 and 15) in addition to the 13 BMPs for POTWs and industrial sources. *Id.* For salt storage facilities, the Petitioners recommend 6 BMPs (Paragraphs A through F) to reduce chlorides discharges. J. Sub. at 2.19.

The Agency recommends modifying the Petitioners' BMPs as discussed below. The Agency's proposed revised BMPs can be found in Attachment 3. To assist in the discussion of the BMPs, the Agency has retained the numbering and lettering structure contained in the Joint Petition with one exception. Because the Agency recommends combining BMP paragraphs 1 and 2, the Agency replaces the Joint Petition's BMP paragraph 1 with a BMP requiring the participants to form a workgroup. The Agency also recommends new BMPs in paragraphs 16, paragraph 17 and paragraph 18. For salt storage facilities, all the new BMPs, including the requirement to form a workgroup, have been added to the end in paragraphs G through paragraph K.

These BMPs will be incorporated into each discharger's NPDES permit, and the Agency's recommended BMP modifications will ensure that the BMPs are consistent with the Petitioners' current permit language. The Agency anticipates conducting site inspections to evaluate compliance with the BMPs during the term of the TLWQS.

Chlorides Workgroup

Any relief from the chloride water quality standard should include a BMP requiring all Petitioners, and any source who later seeks coverage under the TLWQS, to participate in the CAWS chlorides workgroup or the Lower Des Plaines chlorides workgroup depending on the

location of its discharge. All classes of dischargers should participate in the workgroup, and the workgroup should convene at least semi-annually. In its order granting the TLWQS, the Board should take whatever measures are necessary to ensure the workgroups continue throughout the term of the TLWQS, and the Board should identify the detailed set of measures the workgroup must implement. In addition, the workgroup should summarize the yearly progress in the watershed by compiling and analyzing each participant's annual report.

As BMPs are implemented, the workgroup should also target BMPs to be achieved in areas outside of their individual and immediate jurisdiction to support watershed improvements as a whole. This could be accomplished by creating awareness about the environmental impacts of chloride through education, outreach, and other activities to local residents, applicators, elected officials, and businesses and further supported by creating education materials or incentives for other organizations to distribute. Additional opportunities could include training of citizens or private companies that remove snow and apply salt, helping communities (that cannot afford new equipment) implement BMPs to reduce chlorides, or supporting community-based requirements that commercial salt spreaders receive training.

Outreach Strategy

The Agency and the workgroup should work with the MS4 communities to inform them of a general permit special condition requiring participation in a watershed group formed to reduce chlorides. The language of the General NPDES Permit No ILR40 Special Condition D states:

If the permittee performs any deicing activities that can cause or contribute to a violation of an applicable State chloride water quality standard, the permittee must participate in any watershed group(s) organized to implement control measures which will reduce the chloride concentration in any receiving stream in the watershed.

Currently, approximately 30 MS4 communities have coverage under the general permit. The Agency anticipates that some communities may also be co-permittees under USEPA's MS4

permitting regulations. 40 CFR 122.33(b)(3)(2018). If all the MS4 communities with general permit coverage seek coverage under the TLWQS and join the chlorides workgroup, the Agency anticipates chlorides will be further reduced. It will take at least one permit cycle for the Agency to enroll all of the MS4 communities in the TLWQS, and for all the MS4 communities to participate in the workgroup and begin to perform the BMPs.

The Agency and chlorides workgroup should continue to educate the industries and CSO communities of their need to participate in the TLWQS if they are contributing to violations of the chloride water quality standard through presentations, communication with organizations, and permit renewals.

The Agency acknowledges the addition of nonpoint sources will take time. The Agency and workgroup will attempt to focus on the nonpoint sources after the first permit cycle, approximately years 7 to 12 of the TLWQS. The workgroup and the Agency should identify the different nonpoint sources categories, and prioritize educational efforts based on salt spreading practices and proximately to surface waters.

New Proposed Paragraph 16: Berms

In addition to adding a BMP that requires the participation in a chlorides workgroup, the Agency believes a BMP should be added that requires all working areas be bermed and/or sloped to allow snow melt and stormwater to drain away from the area. This BMP would apply to all classes of dischargers, and may require the discharger to channel water to a collection point such as a sump, holding tank or lined basin for collection. The Agency recommends this BMP is included to ensure consistency with individual salt storage NPDES permits.

BMPs for POTWS and Industrial Sources

The Agency does not currently have any revisions to the BMPs proposed by Petitioners in

paragraphs 3, 6, 7, 8 and 9. The Agency recommends modification to the BMPs contained in paragraphs 1, 2, 4, 5, 10, 11, 12, and 13.

Proposed BMP Paragraphs 1 and 2: Petitioners propose in paragraph 1 a BMP that all salt is stored on impermeable pad. In paragraph 2, Petitioners propose that the pad be constructed to “avoid drainage onto the pad, and a collection point must be constructed for drainage.” The Agency proposes combining the two BMPs into one: “All salt will be stored on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt.”

Proposed BMP Paragraph 4: In this BMP, Petitioners require good housekeeping practices be implemented at salt piles and during loading and unloading. The Agency recommends that this BMP be amended as follows: “Good housekeeping policies to prevent or reduce salt runoff, including cleanup of salt at the end of each day or conclusion of a storm event, tarping of trucks, maintaining the pad and equipment, good practices during unloading and loading, cleanup of loading and spreading equipment after each snow/ice event, written inspection program for storage facility, structures and/or work area, removing surplus materials from the site when winter activity finished where applicable, annual inspection and repairs completed prior to winter season, proper disposal of wash water from trucks/spreaders, etc., must be implemented at salt piles and during salt loading/unloading operations.”

Proposed BMP Paragraphs 5 and 11: The proposed BMP in paragraph 5 requires annual calibration of salt spreading equipment, and the proposed BMP in paragraph 11 requires employees to undergo annual training. The Agency recommends that both of these annual requirements be fulfilled before November 30 of each year.

Proposed BMP Paragraph 10: The proposed BMP in paragraph 10 requires dischargers to develop a plan, which includes the use of liquids, for implementation of anti-icing. The Agency

recommends that plan should prioritize implementation of anti-icing practices, beginning with critical locations such as bridges over streams.

Proposed BMP Paragraph 12: Petitioners propose, in paragraph 12, a BMP to cover situations where deicing practices are contracted out. Petitioners propose that contractors “be managed appropriately, including holding them to compliance with the permittee’s own BMPs and training programs”. The Agency believes that the permittee is still responsible for complying with BMPs when deicing is contracted out. Therefore, the Agency recommends this BMP be reworded as follows: “Where deicing activities are contracted out, the permittee is still responsible for complying with all applicable BMPs, and must ensure that contractors are properly trained and comply with all applicable BMPs.”

Proposed BMP Paragraph 13: This BMP requires an annual report be completed. The Agency proposes adding that the annual report be submitted to the Agency and to the workgroup. The Agency recommends that the annual reports be standardized, uniform, and filed in an electronic format. Attachment 5 to this Recommendation is the DuPage River Salt Creek Workgroup “Winter 2017/18 Public Agency Deicing Questionnaire”, which is a good reference in designing the annual reports. The Agency recommends that the annual report comply with the requirements in the proposed pollutant minimization plan. *See infra* p. 21.

BMPs for IDOT/Illinois Tollway Dischargers

The Agency recommends the same changes to IDOT/Illinois Tollway Dischargers’ BMP paragraphs 1 through 13 and paragraph 16 as explained above for POTWs and industrial sources. In addition, the Agency proposes changes to BMP paragraphs 14 and 15, and the addition of a new BMP in paragraph 17.

Proposed BMP Paragraph 14: Petitioners propose a BMP that requires winter maintenance

fleets to be installed with equipment to measure the temperature of the pavement. The Agency recommends that this be done before the first re-evaluation instead of “by the end of the “initial TLWQS period”. The Agency believes the Petitioners’ phrase “initial TLWQS period” is confusing. *See infra* p. 28.

Proposed BMP Paragraph 15: In this paragraph, the Petitioners set forth a BMP that requires dischargers to develop a method to 1) determine whether each truck in its fleet applied salt at the recommend rate; 2) to determine why any salt application rate variations occurred; and 3) ensure variations occur only when strictly necessary. The Agency recommends this BMP be expanded to require the discharger develop a method to conduct a post-winter review to identify areas of success and areas of improvement. The Agency recommends that the following be completed as a part of the post-winter review: evaluation of each salt spreader’s application rate, variations in application rates, analysis of the variation compared to the recommended rates. The Agency proposes that once a discharger develops a method to conduct the review, the review should be completed in the spring or early summer of each year.

New Proposed BMP Paragraph 17: The Agency recommends the addition of a new BMP paragraph 17. The petitioners must buy and install the equipment necessary to enable implementation of all salt spreading/deicing measures specified in the other proposed BMPs.

BMPs for MS4s and CSO

The Agency recommends the same changes to BMPs for MS4s and CSO communities as explained above for POTWs, industrial sources and IDOT/Illinois Tollway Dischargers. In addition, the Agency proposes the one new BMP in Paragraph 18, and one additional amendment.

Proposed BMP Paragraph 7: This BMP requires dischargers to purchase and utilize equipment to measure the pavement temperature; the Agency recommends adding an exception to

this BMP: “unless such equipment has already been installed on salt spreading vehicles.”

New Proposed BMP Paragraph 18: The Agency recommends adding a BMP that would require all MS4 communities covered by the general permit to use deicing material storage structures. The general permit (ILR40) requires that: “if permanent structures, for deicing material, are not owned by the permittee, new permanent deicing material structures shall be constructed within two years of the effective date of the permit.” *See* ILR40 Part IV, Section (B)(6)(c). The effective date of the general permit was March 1, 2016; therefore, the MS4 communities are required to have permanent structures for deicing material by March 1, 2018. The Agency expects that all MS4s are in compliance with their permit.

BMPs for Salt Storage Facilities

The Joint Petition identifies BMPs paragraphs for salt storage facilities by letters as opposed to numbers. The Agency recommends modification of all the proposed BMPs and the inclusion of four new BMPs. Two of the four new BMPs are described above as being applicable to all classes of dischargers (the workgroup and berm requirement). *See supra* pp. 14-16. The Agency recommends the addition of two other new BMPs. First, salt storage facilities should be required to make use of fixed and mobile berms where appropriate to redirect flow and taper over the edge of the pad where possible to minimize stormwater contact. Second, the Agency recommends that salt storage facilities consider retention of stormwater which contacts the salt from a 25 year, 24-hour storm event where feasible. The stormwater could be retained within the berm or in a separate basin, or it could be stored and used as prewetting brine. The Agency recommends this BMP is included to ensure consistency with individual salt storage NPDES permits.

The Agency also recommends changes to BMP paragraphs A, D and F that correspond to

Agency's recommended changes to BMP paragraphs 1 and 2, BMP paragraph 4, and BMP paragraph 13. *See supra* p.17-18.

Proposed BMP Paragraph B: In this BMP, Petitioners propose that the impermeable "pad . . . be constructed so that rain water or other precipitation does not drain onto the pad". Further, "any rain that falls on the pad must be drained to a collection point." The Agency recommends this language be revised as to read as follows: "Pads must be constructed to avoid drainage onto the pad. Any drainage that enters the pad should be directed to a stormwater retention pond." The Agency believes the modified BMP language will ensure consistency with current NPDES permits.

Proposed BMP Paragraph C: Under this proposed BMP, outdoor salt piles not stored under permanent cover must be covered by well-secured tarp at all times except when in active use. The Agency recommends this BMP be amended to include the following sentence: "While working on the pile, fixed or mobile berms shall be incorporated around non-working face to minimize stormwater contact. The permittee shall stage tarp when starting final lift and tarp over the edge of the berm/pad where possible." This BMP is consistent with current NPDES permit requirements.

Proposed BMP Paragraph E: Petitioners propose that salt storage facilities annually train employees. The Agency recommends the following additional language: "annual training must be conducted for employees responsible for loading/unloading/handling at docks and trucks at the facility." The Agency believes it is important to specify all persons that should be trained.

Pollutant Minimization Program

In addition to BMPs, Petitioners propose that, within six months of the effective date of the TLWQS, each discharger will be required to create a Pollution Minimization Program (PMP)

that contains details on how BMPs will be implemented at that site. J. Sub. at 9.3. PMPs must contain implementation deadlines, recordkeeping, reporting and documentation procedures. *Id.* Annually, progress reports would be required to be filed with Illinois EPA and the workgroups no later than July 1. This proposed annual report would contain an explanation of what BMPs had been implemented and any issues encountered during implementation, availability of alternative treatments, changes to facility treatment technologies, effluent data, amount of salt used, proposed steps for the next year, a summary of chloride monitoring data, and a summary of snowfall data. *Id.* at 9.2-9.3.

For POTWS, communities with CSOs outfalls, MS4s communities and IDOT/Tollway, the Petitioners propose 9 required steps/milestones in the BMP implementation schedule. The Agency recommends the following implementation schedule.

1. 6 MONTHS AFTER EFFECTIVE DATE: Petitioner establishes a mechanism for tracking of de-icing salt usage for each facility.
2. July 1 OF EVERY YEAR (BEGINNING WITH YEAR 2): Petitioner submits an annual report to IEPA and the chlorides workgroup on salt usage for deicing and steps taken to minimize salt use and makes the report publicly available. In the annual report, the Petitioner must discuss the following:
 - a. A checklist for the best management practices being used.
 - b. If annual training was completed for the entire workforce that applied chloride.
 - c. The number or percent coverage of the best management practice, if the best management practice is not being done exclusively for the entire coverage of that entity. For example, if dry, wet, and liquids are being used, an estimate of the amount/percentage of coverage that is being used for dry deicing agents, the amount/percentage of coverage that is being used for wet deicing agents, and the amount/percentage of coverage that is being used for liquid deicing agents.
 - d. Type of deicing agent.
 - e. Whether, in the last year, the use of liquids was increased, and dry salt application rates were reduced.

- f. Application rates, how they vary for different types of weather, and how they have changed over the term of the TLWQS.
 - g. An estimate of the annual salt use over the term of the TLWQS.
 - h. Number of callouts. For each callout, the facility should keep the following information:
 - i. Quantity and type of precipitation during the callout.
 - ii. Application rate during the callout
 - iii. Quantity of salt used for each callout.
 - i. Information on salt storage, and methods to ensure good housekeeping policies are implemented (e.g., cleaned-up salt piles).
 - j. An analysis of the BMPs that have been implemented over the term of the TLWQS, including a discussion of the effectiveness and environmental impact of the BMPs, and any hinderances or any unexpected achievements/setbacks.
 - k. An analysis of any new technology that could be implemented by the Petitioner to reduce chloride loadings.
 - l. Identification of necessary capital purchases and expenditures (e.g., new or retrofitted salt spreading equipment necessary to allow for pre-wetting and proper rates of application).
 - m. Identification of additional training that is necessary.
 - n. Explanation of why Petitioner was unable to complete the training and make all capital purchases and expenditures identified in the previous annual report.
3. November 30 OF EVERY YEAR (BEGINNING WITH YEAR 2): Petitioner completes annual training of all salt applicator personnel, including both employees and contractors, on best practices in minimizing the use of salt in deicing.
4. July 1 OF EVERY YEAR: Petitioner submits annual report to IEPA and the chlorides workgroup on salt usage for deicing and steps taken to minimize salt use and makes the report publicly available. The annual report shall be consistent with the requirements listed in paragraph 2 above.
5. July 1 of YEAR 3, YEAR 8 and YEAR 13. The chlorides workgroup submits a status report to the IEPA which includes, an analysis of the following:
- a. chlorides monitoring data;

- b. report on the chloride workgroup's outreach strategy, which includes outreach efforts to expand coverage of the TLWQS, and outreach and training for nonpoint sources.
 - c. identification of any new BMPs and treatment technology;
 - d. identification of the impediments and potential solutions of those impediments faced by Petitioners and those granted coverage under the TLWQS that prevent them from completing the training and making all capital purchases necessary to implement the required BMPs;
 - e. identification and description of any assistance, financial, technical or otherwise, that the chloride workgroup may be able to provide.
6. YEAR 4 ½. Chlorides workgroup submits to the Board its first proposed re-evaluation pleading consistent with the Board's order granting the TLWQS.
 7. YEAR 5 THROUGH YEAR 9. Petitioners implement an adaptive management approach, which may include new or modified BMPs, and those BMPs required by the Board after the first re-evaluation. The annual reports during this time period must describe the Petitioner's iterative process in developing new BMPs and describe operational changes, capital purchases and training necessary to implement new BMPs.
 8. YEAR 9 ½. Chlorides workgroup submits to the Board a second proposed re-evaluation pleading consistent with the Board's order granting the TLWQS or the Board's order adopting the first re-evaluation.
 9. YEAR 10 THROUGH YEAR 14. Petitioners implement an adaptive management approach, which may include new or modified BMPs, and those BMPs required by the Board after the second re-evaluation. The annual reports during this time period must describe the Petitioner's iterative process in developing new BMPs and describe operational changes, capital purchases and training necessary to implement new BMPs.
 10. YEAR 14 ½. Chlorides workgroup submits to the Board a notice of whether the chlorides water quality standards have been met, or whether the Petitioners will seek a new TLWQS.

Term of the TLWQS

The Petitioners propose a 15-year term for the TLWQS. The Agency agrees. The Agency believes, that over time, more dischargers will join the TLWQS, and implement the BMPs

contained therein, to reduce the chloride levels in the watershed. The Agency believes the proposed term of the TLWQS is necessary to provide sufficient time to maximize chloride reduction efforts, in terms of granting sufficient experience with the BMPs to optimize their implementation by the largest possible number of dischargers in the watersheds before the Petitioners will have to file a new petition for relief. The proposed re-evaluation process every five years will help Petitioners maximize their efforts to reduce chloride loading by setting new benchmarks periodically throughout the term of the TLWQS.

Pursuant to Section 104.570(a), the Agency recommends that the term of the TLWQS begins upon USEPA's approval. The Agency agrees with the re-evaluation schedule proposed by Petitioners, which requires Petitioners to submit the proposed re-evaluation 6 months before the end of the 5-year re-evaluation period. This time frame should be used for the second re-evaluation.

The Illinois EPA also recommends the information set forth in (a) through (d) below be included in the Petitioners' 5-year re-evaluation pleading and the information set forth in (a)-(f) be included in the Petitioners' 10-year re-evaluation pleading. The proposed re-evaluation should take into account any relevant information regarding BMPs, including any information in the annual reports, and any other reports generated in accordance with the TLWQS. The Petitioners' should include an analysis of the following for each chloride workgroup in the proposed re-evaluation filed pursuant to Section 104.580:

- a) an assessment of the highest attainable condition;
- b) an evaluation of the effectiveness of the BMPs, taking into account the annual reports submitted by all of the other entities;
- c) to the extent that there are entities that will not be able to complete the training and make all capital purchases necessary to enable the entity to implement the required BMPs, identification of the impediments faced by those entities that prevent them

from doing so and steps taken to remove the impediments identified;

- d) identification of any assistance, financial or otherwise, that any Petitioner may need to be able to complete the training and make all capital purchases necessary to enable the entity to implement the required BMPs;
- e) an assessment of the costs, technical feasibility and effectiveness (in terms of amount of chloride loadings that could be reduced) of a wide range of options for reducing chloride discharge, including reverse osmosis and new BMPs; and
- f) Compare the cost-effectiveness and environmental impact of reducing chloride loadings through BMPs with the cost-effectiveness and environmental impact of other methods to reduce chloride discharges, including reverse osmosis.

Eligibility Criteria

The Board's rules require the Agency's recommendation to include eligibility criteria for dischargers who are not currently a petitioner, but who may want coverage under the TLWQS at a future date. 35 Ill. Adm. Code 104.550(b)(1)(C). The Agency recommends the Board adopts the following eligibility criteria:

- 1) A discharger must be located in the CAWS or LDPR watersheds as identified by the Board pursuant to Section 104.565(d)(2)(A)(i).
- 2) The discharger must belong to one of the classes identified by the Board pursuant to Section 104.540.
- 3) The discharger must have joined and will be participating in either the CAWS chlorides workgroup or the Lower Des Plaines chlorides workgroup.
- 4) The discharger is committed to implementing a pollutant minimization program which includes all the BMPs identified by the Board's order granting the TLWQS.
- 5) The discharger is committed to implementing any required BMP not currently being implemented within 12 months.
- 6) The discharger must commit to participating in the re-evaluation proposal pursuant Section 104.580.
- 7) The discharger must submit the following information to the Illinois EPA:
 - a. the location of the discharger's activity and the location of the points of its discharge;

- b. identification of discharger's NPDES permits;
- c. identification and description of any process, activity, or source that contributes to a violation of the chlorides water quality standard, including the material used in that process or activity;
- d. a description and copy of all Pollutant Minimization Plans that are currently being implemented or were implemented in the past; and
- e. identification of any other BMPs being implemented to reduce chloride in the discharge that are not identified by the Board's order granting the TLWQS.

The Agency believes that participation from as many dischargers as possible is necessary for this process to have a meaningful chloride reduction in the waterbodies included in this proposed TLWQS. Therefore, any discharger belonging to one of the identified classes of dischargers, located in the designated watershed, and committed to performing the BMPs required for that class of dischargers should be allowed to participate. New participants, however, must meet the best management practices that have been implemented or are being implemented by those dischargers that are already participating in the chloride TLWQS. The Agency wants to ensure that additional dischargers joining the TLWQS are not lagging behind the implementation of BMPs. This is necessary to achieve optimal chloride reductions in the watershed. Additionally, any discharger with a new source of chloride must offset at least their additional loading before receiving coverage under the TLWQS.

Compliance with Federal and State Law:

The Agency believes the proposed TLWQS is consistent with applicable federal and regulations and would satisfy the requirement of Section 38.5 of the Illinois Environmental Protections Act.

Other Relevant Information:

The Board's regulations require the Agency to report any other information relevant to the

disposition of the petition, including any pending enforcement action. 35 Ill. Adm. Code 104.550(b).

Enforcement Action: Currently, the Agency has a pending enforcement case against the Village of Frankfort, which operates a POTW, for a chloride violation. The Agency issued a violation notice to Frankfort for its west plant in 2014. Frankfort is currently consolidating its three facilities. Frankfort will expand its regional plant and remove the north plant and west plant from service. The Agency believes this consolidation will be completed in June 2019. The Village of Frankfort is a Petitioner to this proceeding, but it is only seeking coverage for its regional plant.

Water Quality Standard Relief: The Joint Petition request a TLWQS from the Board's chloride water quality standard for the CAWS and LDPR in Section 302.407(g)(3). Some of the waters delineated in the watershed are general use waters. The Agency believes the Board should include relief from the general use chlorides quality standard in Section 302.208(g).

Initial TLWQS Period: The Joint Petition uses the phrase of "initial TLWQS period." J. Sub. at 2.11, 2.13, 2.17, and 2.18. In paragraph 14 of the list of BMPs, the Joint Petition provides that the winter maintenance fleet must be developed and implemented by the end of the initial TLWQS. In paragraph 15, the Joint Petition requires a method to determine salt application rates to be determined by the end of the initial TLWQS. Similarly, the Joint Petition states that evaluation of softening operations and chemical substitutions at industrial sources should be completed by the end of the initial TLWQS period. The Agency believes the Joint Petition's use of the term "initial TLWQS period" is unclear. The Agency is unable to determine if the listed BMPs would need to be completed during the first 5 years of the TLWQS or during the term of the first TLWQS (15 years). The Agency has interpreted this language as meaning BMPs would be completed before the first re-evaluation, and proposed amendments accordingly.

Additional Monitoring Data: The proposed watershed for chloride TLWQS ends at the confluence of the Des Plaines River and the Kankakee River forming the Illinois River. The Agency believes that a chloride TLWQS is not needed downstream of this location and is providing monitoring data to support this conclusion for the Board's review. The Kankakee River has low chloride levels because most of the watershed is rural and not urban. With the addition of low chloride water from the Kankakee River, the water in the Des Plaines River is diluted. The Agency is including the chloride data from Ambient Water Quality Monitoring Network (AWQMN) station D-23 (Illinois River, at Marseilles), which shows no chloride violations in the period between January 2012 and June 2018 in Attachment 4.

Potable Water Supply Wells: The Petitioners need to store deicing agent in such a way as to avoid impacting potable water supply wells. Section 14.2 of the Act prohibits the location of new deicing agent storage or accumulation of greater than 50,000 pounds within the minimum setback zone of existing potable water supply wells. 415 ILCS 5/14.2 (2018). The Board's regulations in Parts 615 and 616 (Technology Control Regulations) already apply to deicing agent storage within the setback zone and *regulated recharge area (Established by the Board under Part 617)* of potable wells. In addition, to these existing statutory and regulatory prohibitions and requirements, the Agency recommends that de-icing agent storage be avoided within delineated Phase I and Phase II wellhead protection areas for public water supply wells or that technology controls similar to Part 616 be utilized to prevent groundwater contamination. 35 Ill. Adm. Code 601.105; 35 Ill. Adm. Code 620.110.

Class III Groundwater: Further, Class III: Special Resource Groundwater areas designated by the Board or listed by Agency pursuant to Section 620.230 of the Board's rules should be avoided. If these Class III areas cannot be avoided, technology controls should be utilized to

prevent contamination. The aquifers with a high potential for aquifer recharge (regional planning scale) should be used as a guide to do further assessment for implementation of prevention measures. Much of the aforementioned information is accessible to the public on the Agency's GIS web service at: <https://www2.illinois.gov/epa/topics/water-quality/swap/Pages/default.aspx>.

WHEREFORE, Illinois EPA respectfully submits its Recommendation that the Board grant with conditions the Joint Petition for a chlorides TLWQS in the CAWS and LDPR.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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ATTACHMENT 1:

IEPA's Proposed Conditions to be included in a Chloride TLWQS

TLWQS Conditions

The Agency recommends that the Board grant Petitioners' requested time-limited water quality standard with the following conditions:

- a. Petitioners participate in a chlorides workgroup whose main goals are working toward the reduction of chloride in the receiving stream and gathering information for the re-evaluation.
- b. Any entity seeking coverage under the chloride TLWQS must participate in the workgroup and work toward the goals of the workgroup. All covered entities are individually responsible for ensuring the workgroup's success.
- c. The re-evaluation must assess the highest attainable condition using all existing and readily available information.
- d. To ensure that there is enough data collected to perform the re-evaluation, data collection in the receiving stream that was used in the support of this chloride TLWQS must continue.
- e. Petitioners must evaluate if the chloride sampling plan and data collection needs to be expanded.
- f. Petitioners develop an annual report consistent with the Agency's recommendation.
- g. Petitioners identify all sampling points and sampling frequency when evaluating compliance with the proposed highest attainable condition.
- h. All BMPs identified by the Board are mandatory for any discharger covered by the TLWQS.
- i. At each re-evaluation, the Petitioners shall evaluate each required BMP, analyze its effectiveness and provide a recommendation about whether it should be continued as is, modified to improve its effectiveness or eliminated. The Petitioners shall consider any new or innovative technology that could improve water quality if implemented and identify all such technologies.

ATTACHMENT 2:

List of Persons Seeking a TLWQS

The list of persons seeking coverage under the chlorides TLWQS include:

A) Petitioners

1. Village of Homewood
2. Village of Orland Park
3. Village of Midlothian
4. Village of Tinley Park
5. Exxon Mobil Oil Corporation
6. Village of Wilmette
7. City of Country Club Hills
8. Noramco-Chicago, Inc
9. Flint Hills Resources Joliet, LLC
10. City of Evanston
11. Village of Skokie
12. Illinois Department of Transportation
13. Metropolitan Water Reclamation District of Greater Chicago
14. Village of Richton Park
15. Village of Lincoln Wood
16. City of Oak Forest
17. Village of Lynwood
18. Citgo Holdings, Inc.
19. Village of New Lenox
20. City of Lockport
21. Caterpillar, Inc.
22. City of Crest Hill
23. City of Joliet
24. Morton Salt, Inc.
25. City of Palos Heights
26. Village of Romeoville
27. IMTT Illinois, LLC
28. Stephan Co.
29. Village of Park Forest
30. Ozinga Ready Mix Concrete, Inc.,
31. Ozinga Materials, Inc.
32. Midwest Marine Terminals, LLC
33. Village of Mokena
34. Village of Oak Lawn
35. Village of Doton
36. Village of Glenwood
37. Village of Morton Grove
38. Village of Lansing
39. Village of Frankfort
40. Village of Winnetka,
41. Village of La Grange
42. Village of Channahon

43. Cook County Department of Transportation and Highways
44. Village of Niles
45. Skyway Concessions Company, LLC
46. Village of Elwood
47. City of Chicago
48. Village of Crestwood
49. Village of Riverside

B) The following non-petitioners may seek coverage under the TLWQS:

1. Village of Lemont
2. Village of Burr Ridge
3. Village of Woodridge

ATTACHMENT 3:

IEPA's Proposed BMPs

POTW / Industrial BMPS

1. Participate in a Chlorides workgroup for the CAWS and LDPR.
2. All salt will be stored on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt.
3. Salt piles shall be covered at all times except when in active use, unless stored indoors.
4. Good housekeeping policies to prevent or reduce salt runoff, including cleanup of salt at the end of each day or conclusion of a storm event, tarping of trucks, maintaining the pad and equipment, good practices during unloading and loading, cleanup of loading and spreading equipment after each snow/ice event, written inspection program for storage facility, structures and/or work area, removing surplus materials from the site when winter activity finished where applicable, annual inspection and repairs completed prior to winter season, proper disposal of wash water from trucks/spreaders, etc., must be implemented at salt piles and during salt loading/unloading operations.
5. All salt spreading equipment must be calibrated at least annually before November 30th. Records of the calibration results must be maintained for each piece of spreading equipment.
6. Road salt will be pre-wetted 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.
7. Equipment will be purchased and utilized to measure the pavement temperature.
8. Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.
9. Salt quantity used, and storm conditions will be tracked during each call-out and recorded.
10. A written plan must be developed for implementation of anti-icing practices, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.
11. Employees involved in winter maintenance operations must undergo annual training in best practices in the use of road salt in such operations (including the practice of plowing first and applying salt only after snow has been cleared) before November 30th.
12. Where deicing activities are contracted out, the permittee is still responsible for complying with all applicable BMPs, and must ensure that contractors are properly trained and comply with all applicable BMPs.
13. An annual report must be completed. Standardized in an electronic format and submitted to the Agency and to the watershed group.

16. Working areas should be bermed and/or sloped to allow snow melt and stormwater to drain away from the area. In some cases, it may be necessary to channel water to a collection point such as a sump, holding tank or lined basin for collection.
17. Equipment necessary to enable implementation of 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) shall be obtained and in place.

BMPs for IDOT / Tollway

1. Participate in a Chlorides workgroup for the CAWS and LDPR.
2. All salt will be stored on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt.
3. Salt piles shall be covered at all times except when in active use, unless stored indoors.
4. Good housekeeping policies to prevent or reduce salt runoff, including cleanup of salt at the end of each day or conclusion of a storm event, tarping of trucks, maintaining the pad and equipment, good practices during unloading and loading, cleanup of loading and spreading equipment after each snow/ice event, written inspection program for storage facility, structures and/or work area, removing surplus materials from the site when winter activity finished where applicable, annual inspection and repairs completed prior to winter season, proper disposal of wash water from trucks/spreaders, etc., must be implemented at salt piles and during salt loading/unloading operations.
5. All salt spreading equipment must be calibrated at least annually before November 30th. Records of the calibration results must be maintained for each piece of spreading equipment.
6. Road salt will be pre-wetted 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.
7. Equipment will be purchased and utilized to measure the pavement temperature.
8. Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.1/2
9. Salt quantity used, and storm conditions will be tracked during each call-out and recorded.
10. A written plan must be developed for implementation of anti-icing practices, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.

11. Employees involved in winter maintenance operations must undergo annual training in best practices in the use of road salt in such operations (including the practice of plowing first and applying salt only after snow has been cleared) before November 30th.
12. Where deicing activities are contracted out, the permittee is still responsible for complying with all applicable BMPs, and must ensure that contractors are properly trained and comply with all applicable BMPs.
13. An annual report must be completed. Standardized in excel and submitted through Agency website and to the watershed group.
14. Equipment to measure the pavement temperature will be installed on the winter maintenance fleet for a sufficient number of vehicles to provide sufficient information to adjust application rates for the most efficient levels. A plan to equip the winter maintenance fleet must be developed and must be before the first re-evaluation.
15. Before the first re-evaluation, a method for conducting a post-winter review should be developed 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.
16. Working areas should be bermed and/or sloped to allow snow melt and stormwater to drain away from the area. In some cases, it may be necessary to channel water to a collection point such as a sump, holding tank or lined basin for collection.
17. Equipment necessary to enable implementation of 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) shall be obtained and in place.

BMPs for MS4s / CSO Communities

1. Participate in a Chlorides workgroup for the CAWS and LDPR.
2. All salt will be stored on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt.
3. Salt piles shall be covered at all times except when in active use, unless stored indoors.
4. Good housekeeping policies to prevent or reduce salt runoff, including cleanup of salt at the end of each day or conclusion of a storm event, tarping of trucks, maintaining the pad and equipment, good practices during unloading and loading, cleanup of loading and spreading equipment after each snow/ice event, written inspection program for storage facility, structures and/or work area, removing surplus materials from the site when winter activity finished where applicable, annual inspection and repairs completed prior to winter

season, proper disposal of wash water from trucks/spreaders, etc., must be implemented at salt piles and during salt loading/unloading operations.

5. All salt spreading equipment must be calibrated at least annually before November 30th. Records of the calibration results must be maintained for each piece of spreading equipment.
6. Road salt will be pre-wetted 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.
7. Equipment will be purchased and utilized to measure the pavement temperature, unless such equipment has already been installed on salt spreading vehicles.
8. Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.^{1/2}
9. Salt quantity used, and storm conditions will be tracked during each call-out and recorded.
10. A written plan must be developed for implementation of anti-icing practices, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.
11. Employees involved in winter maintenance operations must undergo annual training in best practices in the use of road salt in such operations (including the practice of plowing first and applying salt only after snow has been cleared) before November 30th.
12. Where deicing activities are contracted out, the permittee is still responsible for complying with all applicable BMPs, and must ensure that contractors are properly trained and comply with all applicable BMPs.
13. An annual report must be completed. Standardized in excel and submitted through Agency website and to the watershed group.
14. Equipment to measure the pavement temperature will be installed on the winter maintenance fleet for a sufficient number of vehicles to provide sufficient information to adjust application rates for the most efficient levels. A plan to equip the winter maintenance fleet must be developed and must be completed before the first re-evaluation.
15. Before the first re-evaluation, a method for conducting a post-winter review should be developed 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.

16. Working areas should be bermed and/or sloped to allow snow melt and stormwater to drain away from the area. In some cases, it may be necessary to channel water to a collection point such as a sump, holding tank or lined basin for collection.
17. Equipment necessary to enable implementation of 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) shall be obtained and in place.
18. For all communities covered under General Permit ILR40 for MS4 communities, deicing material storage structures shall be used

Salt Storage Facilities BMPs

- A. All salt will be stored on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt.
- B. Pads must be constructed to avoid drainage onto the pad. Any drainage that enters the pad should be directed to a stormwater retention pond.
- C. Outdoor salt piles not stored under permanent cover must be covered by well-secured tarp at all times except when in active use. While working on the pile, fixed or mobile berms shall be incorporated around non-working face to minimize stormwater contact. The permittee shall stage tarp when starting final lift and tarp over the edge of the berm/pad where possible.
- D. Good housekeeping policies to prevent or reduce salt runoff, including cleanup of salt at the end of each day or conclusion of a storm event, tarping of trucks, maintaining the pad and equipment, good practices during unloading and loading, cleanup of loading and spreading equipment after each snow/ice event, written inspection program for storage facility, structures and/or work area, removing surplus materials from the site when winter activity finished where applicable, annual inspection and repairs completed prior to winter season, proper disposal of wash water from trucks/spreaders, etc., must be implemented at salt piles and during salt loading/unloading operations.
- E. Annual training must be conducted for employees responsible for loading/unloading/handling at docks and trucks at the facility.
- F. An annual report must be completed. Standardized in excel and submitted through Agency website.
- G. Participate in a Chlorides workgroup for the CAWS and LDPR.
- H. Working areas should be bermed and/or sloped to allow snow melt and stormwater to drain away from the area. In some cases, it may be necessary to channel water to a collection point such as a sump, holding tank or lined basin for collection.

- I. The Permittee shall make use of fixed and mobile berms where appropriate to redirect flow and taper over the edge of the pad where possible to minimize stormwater contact.
- J. The Permittee should consider the retention of stormwater which contacts the salt from a 25 year/24-hour storm event where feasible. Such retention could be either within the berm, in a separate basin or store the impacted stormwater and use it as pre-wetting brine.

ATTACHMENT 4:

Chloride Monitoring Data for Ambient Water Quality Monitoring
Network, Station D-23, January 2012 and June 2018.

Electronic Filing: Received, Clerk's Office 04/05/2019

StationCode	MonitoringProgram	CollectionDate	CollectionTime	AnalysisDate	SampleMedium	Analyte	SampleFraction	Result	ResultUnits
D-23	Ambient WQMN	01/11/2012	12:40 PM	02/02/2012	Water	Chloride	Total	91.2	mg/l
D-23	Ambient WQMN	03/13/2012	01:59 PM	03/20/2012	Water	Chloride	Total	148	mg/l
D-23	Ambient WQMN	04/10/2012	01:29 PM	04/18/2012	Water	Chloride	Total	125	mg/l
D-23	Ambient WQMN	05/09/2012	01:39 PM	05/11/2012	Water	Chloride	Total	51	mg/l
D-23	Ambient WQMN	07/24/2012	01:20 PM	08/10/2012	Water	Chloride	Total	116	mg/l
D-23	Ambient WQMN	09/26/2012	01:49 PM	10/16/2012	Water	Chloride	Total	109	mg/l
D-23	Ambient WQMN	11/14/2012	02:09 PM	12/05/2012	Water	Chloride	Total	109	mg/l
D-23	Ambient WQMN	01/17/2013	08:45 AM	01/22/2013	Water	Chloride	Total	99.9	mg/l
D-23	Ambient WQMN	03/19/2013	12:20 PM	03/21/2013	Water	Chloride	Total	141	mg/l
D-23	Ambient WQMN	04/16/2013	01:49 PM	04/26/2013	Water	Chloride	Total	102	mg/l
D-23	Ambient WQMN	06/05/2013	02:35 PM	06/13/2013	Water	Chloride	Total	40.8	mg/l
D-23	Ambient WQMN	06/26/2013	02:09 PM	07/10/2013	Water	Chloride	Total	73.9	mg/l
D-23	Ambient WQMN	08/06/2013	01:45 PM	09/05/2013	Water	Chloride	Total	100	mg/l
D-23	Ambient WQMN	09/25/2013	02:29 PM	10/21/2013	Water	Chloride	Total	97.5	mg/l
D-23	Ambient WQMN	10/30/2013	01:49 PM	11/20/2013	Water	Chloride	Total	102	mg/l
D-23	Ambient WQMN	03/26/2014	02:45 PM	04/18/2014	Water	Chloride	Total	120	mg/l
D-23	Ambient WQMN	04/15/2014	01:30 PM	04/18/2014	Water	Chloride	Total	103	mg/l
D-23	Ambient WQMN	06/03/2014	02:00 PM	06/24/2014	Water	Chloride	Total	117	mg/l
D-23	Ambient WQMN	06/30/2014	03:15 PM	07/24/2014	Water	Chloride	Total	53.5	mg/l
D-23	Ambient WQMN	08/27/2014	11:00 AM	09/22/2014	Water	Chloride	Total	74.1	mg/l
D-23	Ambient WQMN	09/16/2014	01:10 PM	09/26/2014	Water	Chloride	Total	55.7	mg/l
D-23	Ambient WQMN	10/28/2014	01:30 PM	11/14/2014	Water	Chloride	Total	58.8	mg/l
D-23	Ambient WQMN	12/17/2014	02:50 PM	12/23/2014	Water	Chloride	Total	84	mg/l
D-23	Ambient WQMN	04/01/2015	01:25 PM	04/13/2015	Water	Chloride	Total	191	mg/l
D-23	Ambient WQMN	05/20/2015	01:35 PM	06/10/2015	Water	Chloride	Total	98.2	mg/l
D-23	Ambient WQMN	08/04/2015	01:45 PM	08/13/2015	Water	Chloride	Total	95.9	mg/l
D-23	Ambient WQMN	09/30/2015	02:00 PM	10/20/2015	Water	Chloride	Total	88.2	mg/l
D-23	Ambient WQMN	10/28/2015	12:45 PM	11/17/2015	Water	Chloride	Total	117	mg/l
D-23	Ambient WQMN	12/09/2015	11:30 AM	12/16/2015	Water	Chloride	Total	105	mg/l
D-23	Ambient WQMN	01/27/2016	10:45 AM	02/03/2016	Water	Chloride	Total	130	mg/l
D-23	Ambient WQMN	03/22/2016	12:20 PM	03/29/2016	Water	Chloride	Total	114	mg/l
D-23	Ambient WQMN	09/20/2016	12:00 PM	09/26/2016	Water	Chloride	Total	53.8	mg/l
D-23	Ambient WQMN	09/20/2016	12:00 PM	09/26/2016	Water	Chloride	Total	53.8	mg/l
D-23	Ambient WQMN	10/19/2016	12:50 PM	11/02/2016	Water	Chloride	Total	53.1	mg/l
D-23	Ambient WQMN	10/19/2016	12:50 PM	11/02/2016	Water	Chloride	Total	53.1	mg/l
D-23	Ambient WQMN	11/29/2016	02:45 PM	12/09/2016	Water	Chloride	Total	74.9	mg/l
D-23	Ambient WQMN	11/29/2016	02:45 PM	12/09/2016	Water	Chloride	Total	74.9	mg/l
D-23	Ambient WQMN	01/18/2017	11:45 AM	02/07/2017	Water	Chloride	Total	136	mg/l
D-23	Ambient WQMN	01/18/2017	11:45 AM	02/07/2017	Water	Chloride	Total	136	mg/l
D-23	Ambient WQMN	03/01/2017	01:50 PM	03/10/2017	Water	Chloride	Total	147	mg/l
D-23	Ambient WQMN	03/01/2017	01:50 PM	03/10/2017	Water	Chloride	Total	147	mg/l
D-23	Ambient WQMN	04/18/2017	12:35 PM	05/05/2017	Water	Chloride	Total	80.9	mg/l
D-23	Ambient WQMN	04/18/2017	12:35 PM	05/05/2017	Water	Chloride	Total	80.9	mg/l
D-23	Ambient WQMN	06/06/2017	12:00 PM	06/13/2017	Water	Chloride	Total	70.2	mg/l
D-23	Ambient WQMN	07/11/2017	08:45 AM	07/19/2017	Water	Chloride	Total	72.7	mg/l
D-23	Ambient WQMN	08/15/2017	12:50 PM	08/25/2017	Water	Chloride	Total	76.4	mg/l
D-23	Ambient WQMN	10/02/2017	01:05 PM	10/10/2017	Water	Chloride	Total	83.2	mg/l
D-23	Ambient WQMN	11/08/2017	12:35 PM	11/16/2017	Water	Chloride	Total	64.5	mg/l
D-23	Ambient WQMN	12/12/2017	02:05 PM	12/15/2017	Water	Chloride	Total	79.1	mg/l
D-23	Ambient WQMN	01/31/2018	02:15 PM	02/09/2018	Water	Chloride	Total	153	mg/l
D-23	Ambient WQMN	06/19/2018	03:45 PM	06/22/2018	Water	Chloride	Total	95.7	mg/l

ATTACHMENT 5:

DuPage River Salt Creek Workgroup's Winter 2017/18 Public Agency
Deicing Questionnaire

WINTER 2017/18 PUBLIC AGENCY DEICING QUESTIONNAIRE

The DuPage River Salt Creek Workgroup (DRSCW) is collecting data on current deicing and snow-fighting practices from public agencies in the DuPage River and Salt Creek watersheds. Information will be compiled and provided as a report to participating agencies and can be used for NPDES reporting purposes. Please contact DRSCW to receive a copy of your agency's previous response.

Contact Information

Contact Name: _____
 Contact Phone: _____

Agency: _____
 E-mail: _____

1. Deicing and Snow Removal

My agency ran out of salt this year. Yes No

My agency's annual salt usage in tons per year (snow season):

2015/16 _____ 2014/15 _____ 2013/14 _____ 2012/13 _____ 2011/12 _____

Per event, my agency clears and uses the noted application practices and rates:

Surface Type	Total Cleared	Cleared Using Pre-Wetted Salt	Cleared Using Anti-Icing
Roadways (Total Lane Miles)	_____	_____	_____
Parking Lots (sq.feet)	_____	_____	_____
Rates:	_____	Gal./Ton	_____ Gal./Lane Mile
		<input type="checkbox"/> In Yard	
		<input type="checkbox"/> On Board	

My agency has a maximum application rate. Yes No If yes, please provide rate. _____

My agency uses the following practices and application rates for differing storm events:

Storm Event	Anti-Ice?	Pre-Wet?	Our target application rate is	
Long Duration Freezing Rain Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <200 lbs/lane-mile	<input type="checkbox"/> 200-300 lbs/lane-mile
			<input type="checkbox"/> 300-400 lbs/lane-mile	<input type="checkbox"/> >400 lbs/lane-mile
Small 1" Storm Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <200 lbs/lane-mile	<input type="checkbox"/> 200-300 lbs/lane-mile
			<input type="checkbox"/> 300-400 lbs/lane-mile	<input type="checkbox"/> >400 lbs/lane-mile
2"-3" Storm Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <200 lbs/lane-mile	<input type="checkbox"/> 200-300 lbs/lane-mile
			<input type="checkbox"/> 300-400 lbs/lane-mile	<input type="checkbox"/> >400 lbs/lane-mile
6" or greater Storm Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <200 lbs/lane-mile	<input type="checkbox"/> 200-300 lbs/lane-mile
			<input type="checkbox"/> 300-400 lbs/lane-mile	<input type="checkbox"/> >400 lbs/lane-mile

My agency uses (D)ry solids, (P)re-wetted solids, and/or (L)iquids deicing agents (check all that apply):

D P L Deicing Agent	D P L Deicing Agent	D P L Deicing Agent
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Rock salt	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Calcium magnesium acetate	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Abrasives
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Calcium chloride	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Potassium acetate	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Urea
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Magnesium chloride	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Potassium chloride	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Organics
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other: _____		

My agency's pre-storm anti-icing practices include (methods, materials, mix/blend): _____

Anti-icing has helped my agency's overall program by: _____

My agency does not implement anti-icing practices because of the following barriers: _____

Prices for salt or deicing products have: Decreased Increased Not changed

My agency uses weather forecasting service. Yes No

My agency makes use of pavement temperature sensing data. Yes No

My agency communicates winter maintenance policies to residents. Yes No

If yes, what method(s)? _____

My agency is considering adjusting winter maintenance policies. Yes No

If yes, in what ways? _____

Describe any changes in your deicing practices over the past two years. _____

2. Deicing and Snow Removal Equipment

Our agency uses the following types and numbers of snow/ice removal equipment:

Number of mechanically controlled spreaders for: _____ Number of snow plows
_____ Dry solids _____ Pre-wetted solids _____
Liquids _____ Number with AVL
_____ Other vehicle-mounted equipment (please

Number of computer/sensor controlled spreaders for: describe): _____

_____ Dry solids _____ Pre-wetted solids _____
Liquids _____

New or innovative equipment used: _____

Our agency calibrates deicing equipment. Yes No If yes, how often? _____

3. Salt Storage

Total number of salt storage areas. _____ Comments: _____

Salt is stored in fully enclosed structures Yes No N/A

Salt is stored on an impervious pad. Yes No N/A

Number of salt storage areas without a fully enclosed storage structure or impervious storage pad? _____

Residual salt in loading areas is swept up after usage. Yes No N/A

If we have a surplus of salt, we store it (where and how): _____

Other deicing and snow removal agents CHEMICALS/COMPOUNDS are stored (where and how): _____

4. Equipment Maintenance

My agency washes equipment:

- Interior garage or wash rack that drains to sanitary sewer
- Exterior area that drains to sanitary sewer
- Exterior area that does not drain to sanitary sewer
- Commerical wash facility
- Undercarriage wash
- Other: _____

My agency collects deicing equipment wash water for reuse (making brine). Yes No

5. Management and Record-Keeping

My agency controls and monitors the use of salt and/or other agents by (check all that apply):

- Training occurs: at start of employment annually other: _____
- Application rate is established by: director supervisor operator other: _____
- Application rate is controlled: by operator automatically fixed rate other: _____
- Product use records are kept for each: truck event winter none
- other: please explain. _____

CERTIFICATE OF SERVICE

I, STEFANIE N. DIERS, Assistant Counsel for the Illinois EPA, herein certifies that she has served a copy of the foregoing NOTICE OF FILING and the ILLINOIS EPA'S RECOMMENDATION, upon persons listed on the Service List, by sending an email from my email account (Stefanie.diers@illinois.gov) to the email addresses designated below with the following attached as a PDF document in an e-mail transmission on or before 5:00 pm on April 5, 2019.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Stefanie Diers
Stefanie Diers
Assistant Counsel
Division of Legal Counsel

DATED: April 5, 2019

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