

VILLAGE OF  
**FRANKFORT**  
INC • 1879

Annual Report for Year 1 (2022-2023) of the Time Limited Water  
Quality Standard for Chloride

Prepared By:



REL Project #22-R0426

June 30, 2023

The Village of Frankfort is a member of the Lower Des Plaines Watershed Group



## 1.0 Introduction to Chloride Issue in CAWS/LDPR

This Annual Report has been prepared by the Village of Frankfort to reduce the environmental impacts from the Village's chloride related operations. The Village of Frankfort is a discharger covered under the Time Limited Water Quality Standard (TLWQS) for chloride for the Chicago Area Waterways System (CAWS) and Lower Des Plaines River (LDPR) watersheds. This PMP has been prepared to meet the requirements laid out in the 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 (WQS) for chloride for the CAWS was updated as part of the rulemaking process related to changing the designated use of the CAWS. The chloride WQS was updated from 1,500 milligrams per liter (mg/L) during the winter and 500 mg/L during the summer to 500 mg/L all year round. The change in the chloride WQS 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 (IPCB) for a variance from the chloride WQS. The joint petition laid out best management practices (BMPs) 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 LDPR 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 LDPR 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 the LDPR. The TLWQS for chloride requires all dischargers covered under the TLWQS for chloride to create Pollutant Minimization Plan (PMPs) and implement specific BMPs based on their operations to reduce their chloride discharges.

## 2.0 Organization Info, Facilities' Specific Info

Agency Name: Village of Frankfort		
Facility Name: Village of Frankfort Regional WWTP	Permit Number: IL0072192	
Facility Address: 20538 South LaGrange Road		
City: Frankfort	State: Illinois	Zip Code: 60423

Located predominantly within Will County, Illinois and a small portion within Cook, Illinois, the Village of Frankfort is located generally in the area surrounding the intersection of LaGrange Road (US Route 45) and Lincoln Highway (US Route 30) and serves a population of approximately 20,500 residents.

The Village of Frankfort Public Works Department is responsible for providing snow and ice control for 130 lane-miles of streets. There are 138 cul-de-sacs and 10 Village-owned parking lots.

Built in 1997 and 2008, the Village of Frankfort's 2 salt storage structures are located at the Village of Frankfort Public Works facility at 100 Sangmeister Road and typically have 3,000 tons of rock salt in storage on average. In addition, 2 polyurethane aboveground storage tanks (ASTs), both having a capacity of 5500 gallons, are located near the salt storage.

### 2.1 Level of Service for Winter Maintenance Activities

The Village of Frankfort's goal is to have priority streets plowed within 8 hours from the time that the snow stops falling. For neighborhood streets, the Village of Frankfort's goal is to plow the neighborhood streets within 16 hours of the completion of the priority streets. The goal for the neighborhood streets is to make the streets passable and provide good traction at stop signs, hills, and curves. It is not practical to remove all snow and/or ice down to bare pavement on neighborhood streets. Specific information regarding levels of service is detailed on pages 4, 5 and 6 in the Snow and Ice Plan provided in Appendix 1 of the Village of Frankfort's PMP.

During normal salt spreading and/or plowing events, the Public Works Department has on average 20 plow trucks and 1 pre-wet truck in use on the road. Priority (main) streets are the first to be plowed followed by neighborhood streets. The plowing and spreading operations are normally run with 1 truck per assigned route. During certain events, 2-truck tandem plowing will be allowed only at the discretion of the Public Works Director or designee. When 2-truck tandem plowing is implemented, only the rear truck is allowed to spread salt to the road.

## 3.0 Best Management Practices

Details regarding the Village of Frankfort's implementation of BMPs identified as part of the TLWQS for Chlorides are included as follows:

## 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.	The Village of Frankfort has been a member of the LDPR Watershed Group since 2019. Village of Frankfort staff regularly attend meetings, communicates with other members and utilizes available documents and resources available to all members.

## 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.	The Village of Frankfort stores on average 3,000 tons of rock salt in 2 permanent storage dome structures on concrete pads to prevent contact with stormwater. Details are provided in the Village of Frankfort's Snow and Ice Control Plan.
Cover salt piles at all times except when in active use, unless stored indoors.	The Village of Frankfort stores on average 3,000 tons of rock salt in 2 permanent storage dome structures on concrete pads to prevent contact with stormwater. Details are provided in the Village of Frankfort's Snow and Ice Control Plan.
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, 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.	The Village of Frankfort is currently in the process of budgeting for and planning to construct a berm or sufficient slope to allow snow melt and stormwater to drain away from the salt storage dome and salt loading/unloading area. In the event that a berm cannot be constructed, an alternative collection system for snow melt and stormwater will be considered for budgeting and construction.
<b>MS4/CSO Only</b> - Use deicing material storage structures for all communities covered under General Permit ILR40 for MS4 communities.	The Village of Frankfort stores on average 3,000 tons of rock salt in 2 permanent storage dome structures on concrete pads to prevent contact with stormwater. Details are provided in the Village of Frankfort's Snow and Ice Control Plan.

<p>Good housekeeping practices must be implemented at the site, including:</p> <ul style="list-style-type: none"> <li>• cleanup of salt at the end of each day or conclusion of a storm event;</li> <li>• tarping of trucks for transportation of bulk chloride;</li> <li>• maintaining the pad and equipment;</li> <li>• good practices during loading and unloading;</li> <li>• cleanup of loading and spreading equipment after each snow/ice event;</li> <li>• a written inspection program for storage facility, structures and work area;</li> <li>• removing surplus materials from the site when winter activity finished where applicable;</li> <li>• annual inspection and repairs completed when practical;</li> <li>• evaluate the opportunity to reduce or reuse the wash water.</li> </ul>	<p>The Village of Frankfort uses good housekeeping practices for winter road salt related work including loading, salt deliveries, and facility inspections. Details are provided in the Village of Frankfort's Snow and Ice Control Plan and Stormwater Pollution Prevention Plan.</p>
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#### Winter Maintenance Operations BMPs

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
<p>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.</p>	<p>Calibration is completed by Village of Frankfort staff each year and calibration records for each piece of spreading equipment are maintained.</p>
<p>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.</p>	<p>The Village of Frankfort uses pre-wet road salt on 11 trucks and all future trucks purchased will have this system installed.</p>

Use equipment to measure the pavement temperature unless such equipment has already been installed on road salt spreading vehicles.	The Village of Frankfort monitors pavement temperatures using portable sensors mounted on Supervisors' and administrators' vehicles.
Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.	The Village of Frankfort communicates in partnership with other communities in order to develop and implement a protocol to vary salt application rates based on pavement temperature, existing weather conditions, and forecasted weather conditions.
Track and record salt quantity used and storm conditions from each call-out.	The Village of Frankfort maintains records of each winter storm call-out.
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.	The Village of Frankfort uses Anti-Icing as part of its winter operations and a written plan for implementation of anti-icing is provided in the Village of Frankfort's Snow and Ice Control 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.	The Village of Frankfort completes annual training for winter maintenance staff each year.
Be responsible for complying with all applicable BMPs even when deicing practices are contracted out and ensure that contractors are properly trained and comply with all applicable BMPs.	Not applicable as the Village of Frankfort does not use contractors for snow and ice control.
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.	The Village of Frankfort will submit this Annual report in portable document file (pdf) format to both the LDPR Watershed Group and IEPA by July 1 <sup>st</sup> of each year.
Obtain and put into place equipment necessary to implement all salt spreading/deicing measure	The Village of Frankfort uses pre-wet road salt on 11 trucks and all future trucks purchased will have this system installed.

<p>specified in this BMP, such as any new or retrofitted salt spreading equipment necessary to allow for pre-wetting and proper rates of application.</p>	
<p><b>MS4/CSO/IDOT/TOLLWAY Only</b> - 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.</p>	<p>Not applicable.</p>
<p><b>MS4/CSO/IDOT/TOLLWAY Only</b> - 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.</p>	<p>Not applicable.</p>

3.1 Analysis of BMPs Implemented

During Year 1, the Village of Frankfort implemented the above-described BMPs, which resulted in an overall better understanding of snow and ice control operations and a reduction in rock salt usage; thereby decreasing the discharge of chlorides to the environment. Additionally, a review of records maintained for each winter storm call-out provided better insight into current and future operations, equipment used and potential changes to practices and procedures.

### 3.2 Analysis of Alternative Treatments or New Technology

During Year 1, the Village of Frankfort did not implement any alternative treatments or new technology as part of its snow and ice control operations. The Village of Frankfort will continue to investigate possible alternative treatments or new technologies as they become available or as changing conditions require.

## 4.0 Deicing/Anti-Icing Agents Used

Currently, the Village of Frankfort uses rock salt, primarily pretreated with liquid deicer, and anti-icing liquid. Materials used by Village of Frankfort for the 2022-2023 winter season are included as Appendix 1.

### 4.1 Application Rates

The Village of Frankfort's objective is to provide maximum service to the public during periods of snow and ice accumulation while exercising wise management of the Village of Frankfort's resources and providing protection of the environment using the following application rates. The application rates used by the Village of Frankfort for the 2022-2023 winter season are included as Appendix 2.

#### 4.1.1 Application Rate Analysis

Using the application rates summarized in Appendix 2, the Village of Frankfort realized a reduction in the amount of rock salt used during the 2022-2023 winter season.

### 4.2 Application Practices

The Village of Frankfort uses the following practices to apply deicing and anti-icing materials:

- During the period between November 15th and March 1st, or whenever weather conditions warrant, the Public Works Director and/or Assistant Director may direct that an anti-icing solution be spray applied to bridge decks and main arterial streets. The anti-icing solution helps minimize frost and icing on paved surfaces and also acts as a barrier to prevent ice and snow from sticking, thereby aiding in snow and ice removal operations. Anti-icing solution is applied in accordance with the manufacturer's recommendations for gallons per lane mile.
- The first application of rock salt is applied as soon as snow or ice begins to accumulate on the pavement surface. The melting action of salt applied early in a weather event works upward from the pavement surface so that ice does not stick or form. When temperatures drop below 15 degrees, the rock salt usage becomes less effective.
- Pre-wetting is a process by which liquid deicer is applied to rock salt prior to salt spreading on the roads. Liquid deicer is applied to rock salt in accordance with the manufacturer's recommendations for gallons per ton.
- Plowing and spreading operations commence when a minimum of 2 inches of snow has accumulated. Spreading (salting) operations continue along with plowing until conditions deem it unnecessary or ineffective. All plowing and spreading operations are normally run with 1 truck per assigned route. During certain events, 2-truck tandem plowing is allowed only at the



discretion of the Public Works Director or designee. When 2-truck tandem plowing is implemented, only the rear truck is allowed to spread rock salt to the road.

#### 4.3 Call Outs

A total of 11.6 inches of snow was reported in the Village of Frankfort for the 2022-2023 winter season. There were 1 freezing rain event and 14 snow events for the 2022-2023 winter season. The Village of Frankfort had 14 call outs completed during the 2022-2023 winter season. A log of all call outs completed by the Village of Frankfort are included as Appendix 3.

#### 4.4 Use of Liquids

As described in prior sections of this Annual Report, the Village of Frankfort utilizes deicing and anti-icing liquids to pre-wet rock salt and to prevent icing.

#### 5.0 Training

The Village of Frankfort completed annual training for 34 employees who are part of the winter maintenance operations on October 5, 2022 and November 21, 2022. A list of annual training topics by type of employee is included as Appendix 4.

#### 6.0 Deicing and Snow Removal Equipment and Maintenance

The Village of Frankfort uses the equipment listed in Appendix 5 during winter maintenance activities.

##### 6.1 Description of Equipment Washing and Wash Water Collection

Winter maintenance equipment listed in Appendix 5 is typically parked overnight within the Public Works Building at the Village of Frankfort Public Works Department facility. The Public Works Building consists of a large, 1-story metal-sided structure with a Portland cement concrete floor surface. Any wash water generated during the cleaning of winter maintenance equipment is captured by trench drains located within the floor surface which drain to a triple-trap basin prior to discharge from the building.

#### 7.0 Material Storage

The Village of Frankfort maintains 1 storage area which consists of 2 salt storage structures, typically having 3,000 tons of rock salt in storage on average, and 2 polyurethane ASTs, both having a capacity of 5500 gallons. Information regarding the storage area is included in Appendix 6.

#### 8.0 Capital Purchases

Identified capital purchases from the Village of Frankfort's PMP to implement the BMPs and reduce chlorides in our operations over the first 5-year term of the Chloride TLWQS are included as Appendix 7.

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

During the 2022-2023 winter season, the Village of Frankfort did not complete any capital purchases to implement the BMPs. The Village of Frankfort will evaluate capital purchases on an as-needed basis.

## 9.0 Environmental Monitoring Data

Chloride monitoring data is collected for the CAWS and LDPR 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 LDPR Watershed Group also maintains a USGS monitoring station in the Des Plaines River at Channahon, Illinois 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

The Village of Frankfort collects chloride monitoring data as part of its NPDES effluent data and the data for 2022-2023 is included as Appendix 8.

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

The Village of Frankfort made no changes to the facility's NPDES treatment technologies for chlorides.

## 10.0 Program Evaluation

During Year 1, the Village of Frankfort implemented the BMPs described in this Annual Report, which resulted in an overall better understanding of snow and ice control operations and a reduction in rock salt usage; thereby decreasing the discharge of chlorides to the environment. Additionally, a review of records maintained for each winter storm call-out provided better insight into current and future operations, equipment used and potential changes to practices and procedures.

### 10.1 Proposed Steps for the Coming Year

During the coming year, the Village of Frankfort will continue the process of budgeting for and planning to construct a berm or sufficient slope to allow snow melt and stormwater to drain away from the salt storage dome and salt loading/unloading area. In the event that a berm cannot be constructed, an alternative collection system for snow melt and stormwater will be considered for budgeting and construction.

In addition, The Village of Frankfort will continue to communicate in partnership with other communities in order to develop and implement a protocol to vary salt application rates based on pavement temperature, existing weather conditions, and forecasted weather conditions.

## 11.0 Workgroup Participation

The Village of Frankfort has been an active member of the LDPR Watershed Group since 2019. Village of Frankfort staff regularly attend meetings, communicates with other members, utilizes available documents and resources available to all members and participates in workshops and training sessions.

## APPENDICES

Organization Name:  
Village of Frankfort

Chloride TLWQS Annual Report  
Appendix 1 - Deicing/Anti-Icing Agents Used

Material or Product	Dry, Pre-Wet, Pretreated, or Liquid	Lane Miles Treated with the Product for 2022-2023	Parking Lot and Sidewalk Area (Sq. Ft.) Treated with the Product for 2022-2023	Total Amount used for 2022-2023 (Year 1) in Tons or Gallons	Total Amount used for 2023-2024 (Year 2) in Tons or Gallons	Total Amount used for 2023-2024 (Year 3) in Tons or Gallons	Total Amount used for 2023-2024 (Year 4) in Tons or Gallons	Total Amount used for 2023-2024 (Year 5) in Tons or Gallons	Total Amount Used Over First 5-Year Term
Rock Salt	Dry	135	223320	1020					1020
Inferno Melt	Liquids	135	223320	2610					2610
PT Liquid	Pretreated	135	223320	5500					5500
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0

**Estimates of Relative Material Amounts Applied and Coverage Achieved**

Year	Total Lane Miles Maintained	Total Parking Lot and Sidewalk Area (Sq. Ft.) Maintained	Percent of Total Lane Miles Treated with Dry Materials	Percent of Total Lane Miles Treated with Pre-Wet or Pretreated Materials	Percent of Total Lane Miles Treated with Liquids	Percent of Total Parking Lot and Sidewalk Area Treated with Dry	Percent of Total Parking Lot and Sidewalk Area Treated with Pre-wet or Pretreated Materials	Percent of Total Parking Lot and Sidewalk Area Treated with Liquids
2022-2023	135	223320	100%	100%	100%	100%	0%	100%

**Organization Name:**  
**Village of Frankfort**

**Chloride TLWQS Annual Report**  
**Appendix 2 - Application Rates**

<b>Material or Product</b>	<b>Application Rate Utilized</b>
Rock Salt	200 to 300 pounds per lane mile
Pre-Treatment of Rock Salt	11 gallons per ton
Anti-Icing Liquid	32 gallons per lane mile

**Organization Name:**  
**Village of Frankfort**

**Chloride TLWQS Annual Report**  
**Appendix 3 - Call Out Logs**

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12-16-22

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Ben	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 max	ST-26 Bob K	ST-25 Jack
ST-24	ST-22 Ron		

#### 1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K.	ST-18 Jonathan	
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#### Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13 Lupe	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3

ST-2 Jose

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 Dan M.

#### 1-Ton Dump:

U-3 Bobby S.	U-14 Tyler		
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#### Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

12-22-23

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Ben	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 BobK	ST-25 Jack
ST-24	ST-22 Ron		

#### 1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike	ST-18 Jonathan	
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#### Pick-ups

ST-49 Rick	ST-17	ST-16 Danny	ST-15
ST-14	ST-13 Lupe	ST-11 Adam T.	ST-10 Larry
ST-8 Rubin	ST-6 Roger	ST-5 Mark	ST-3 Geno
ST-2 Jose			

#### Pre Wet Truck:

ST-4 Schubbe			
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### Utility Dept.

#### Big Truck:

U-21 Dan			
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#### 1-Ton Dump:

U-3 Bobby S.	U-14 Tyler		
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#### Pick-ups

U-13 Matt	U-12	U-11 John	U-9 Jesse
U-8	U-6 Vinny	U-5	W-3 Eric



12-23-22

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Ben	ST-33 Cesar
ST-32 DW2	ST-31 Kyle H.	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bob K	ST-25
ST-24	ST-22 Ron		

#### 1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K.	ST-18 Jonathan	
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#### Pick-ups

ST-49 Rick	ST-17	ST-16 Danny	ST-15
ST-14 Adam T	ST-13 Lupe	ST-11 Mark	ST-10
ST-8 Rubin	ST-6 Roger	ST-5 Larry	ST-3 Gene
ST-2 Jose			

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 Dan

#### 1-Ton Dump:

U-3 Bobby	U-14 Tyler		
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#### Pick-ups

U-13 matt	U-12	U-11 John	U-9 Jesse
U-8	U-6 Vinny	U-5	W-3 Eric

12-26-22

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goat	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26	ST-25 Jack
ST-24	ST-22		

#### 1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K	ST-18 Jonathan	
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#### Pick-ups

ST-49	ST-17	ST-16 Dany	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3
ST-2 Jose			

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 Dan M

#### 1-Ton Dump:

U-3 Bobby	U-14 Tyler		
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#### Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

1-5-23

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goat	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 BW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bad Bob	ST-25 Jack
ST-24 Ron	ST-22		

#### 1-Ton Dump:

ST-7 Kyle	ST-12 Polish	ST-18 Jonathan	
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#### Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3

ST-2 Jose

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 Dan

#### 1-Ton Dump:

U-3 Bobby	U-14 Tyler		
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#### Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

### TRUCK LIST

Street Dept.

Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goat	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26	ST-25 Jack
ST-24	ST-22		

1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K	ST-18 Jonathan
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Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3
ST-2 Jose			

Pre Wet Truck:

ST-4

Utility Dept.

Big Truck:

U-21 Dan

1-Ton Dump:

U-3	U-14
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Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

1-25-23

### TRUCK LIST

Street Dept.

Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goat	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 DW2	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bob K	ST-25 Jack
ST-24	ST-22 Ron		

1-Ton Dump:

ST-7 Kylett.	ST-12 Mike K	ST-18 Jan
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Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6 Roger	ST-5	ST-3
ST-2 Jose			

Pre Wet Truck:

ST-4 Schutte
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Utility Dept.

Big Truck:

U-21 Dan
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1-Ton Dump:

U-3 Bobby	U-14 Tyler
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Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

1-26-23

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Ben	ST-33 C
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bob	ST-25
ST-24 Ron	ST-22 Jack		

#### 1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K.	ST-18 Jonathan	
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#### Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6 Roger	ST-5	ST-3
ST-2 Jose			

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 Dan

#### 1-Ton Dump:

U-3 Bobby	U-14 Tyler		
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#### Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

TRUCK LIST 1-27-23

Street Dept.

Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goster	ST-33 C
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bob	ST-25 Jake
ST-24 Ron	ST-22		

1-Ton Dump:

ST-7 Kyle	ST-12 Mike K.	ST-18 Jonathan
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Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3
ST-2 Jose			

Pre Wet Truck:

ST-4

Utility Dept.

Big Truck:

U-21 Dan

1-Ton Dump:

U-3 Bobby	U-14 Tyler
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Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

1-28

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 JJ	ST-35 MS	ST-34 BG	ST-33 CM
ST-32 DW2	ST-31 KM	ST-30 DW1	ST-29 JI
ST-28 ZB	ST-27 MT	ST-26	ST-25 JC
ST-24	ST-22 RT		

#### 1-Ton Dump:

ST-7	ST-12	ST-18	
------	-------	-------	--

#### Pick-ups

ST-49	ST-17	ST-16	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3
ST-2			

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 DM

#### 1-Ton Dump:

U-3	U-14 TR		
-----	---------	--	--

#### Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3



1-29-23

### TRUCK LIST

Street Dept.

Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goat	ST-33 Cas
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26	ST-25 Jack
ST-24	ST-22		

1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K.	ST-18 Jonathan
--------------	---------------	----------------

Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3
ST-2 Jose			

Pre Wet Truck:

ST-4

Utility Dept.

Big Truck:

U-21 Dan

1-Ton Dump:

U-3 Bobby	U-14 Tyler
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Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

2-17-23

TRUCK LIST

Street Dept.

Big Truck:

ST-36 41

ST-35 54

ST-34 50

ST-33 46

ST-32 42

ST-31 52

ST-30 47

ST-29 45

ST-28 44

ST-27 48

ST-26 Bob

ST-25 Jack

ST-24

ST-22 52

1-Ton Dump:

ST-7 Kyle

ST-12 Mike

ST-18 51

Pick-ups

ST-49

ST-17

ST-16

ST-15

ST-14

ST-13

ST-11

ST-10

ST-8

ST-6

ST-5

ST-3

ST-2

Pre Wet Truck:

ST-4

Utility Dept.

Big Truck:

U-21 Dan

1-Ton Dump:

U-3

U-14 Tyler

Pick-ups

U-13

U-12

U-11

U-9

U-8

U-6

U-5

W-3

2-16-23

## TRUCK LIST

### Street Dept.

#### Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Ben	ST-33 Cesar
ST-32 DW2	ST-31 Kyle	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bob	ST-25 Jack
ST-24 Ron	ST-22		

#### 1-Ton Dump:

ST-7 Kyle	ST-12 Mike R.	ST-18 Jonathan	
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#### Pick-ups

ST-49	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6	ST-5	ST-3
ST-2 Jose			

#### Pre Wet Truck:

ST-4

### Utility Dept.

#### Big Truck:

U-21 Dan

#### 1-Ton Dump:

U-3 Bobby	U-14 Tyler		
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#### Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

3-3-23

TRUCK LIST

Street Dept.

Big Truck:

ST-36 Josh	ST-35 Mike	ST-34 Goat	ST-33 Cesar
ST-32 DW2	ST-31 Kyle H.	ST-30 DW1	ST-29 Joe
ST-28 Zach	ST-27 Max	ST-26 Bob K	ST-25 Jack
ST-24 Ron	ST-22		

1-Ton Dump:

ST-7 Kyle H.	ST-12 Mike K.	ST-18 Janath
--------------	---------------	--------------

Pick-ups

ST-49 Rick	ST-17	ST-16 Danny	ST-15
ST-14	ST-13	ST-11	ST-10
ST-8	ST-6 Roger	ST-5	ST-3
ST-2 Jose			

Pre Wet Truck:

ST-4 Schutte

Utility Dept.

Big Truck:

U-21 Dan M.

1-Ton Dump:

U-3 Bobby	U-14 Tyler
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Pick-ups

U-13	U-12	U-11	U-9
U-8	U-6	U-5	W-3

## 2022-2023 SNOW PLOW ROUTES

**ZONE#1 U-21 DAN MARTINO**  
**U-14 TYLER REGAN**

**PRIORITY ROUTE:**

Center Rd. (Nebraska St. south to "S" Curve)

**ROUTE:**

Industry – don't forget new part off Laraway rd.

Krusemark

Chelsea

Sutton Dale.

Cardinal Lake

**ZONE#2 ST-34 BEN GROTE**

**PRIORITY ROUTE:**

Prestwick Dr. & Aberdeen Dr.

78<sup>th</sup> Ave (Rt. 30 to south end)

Sauk Trail (Assist Kevin)

**ROUTE:**

Prestwick – Prestwick Dr. & Aberdeen Dr.

Georgetown

Plank Trail Estates

Hunter Woods

**ZONE#3 ST-29 JOE INGRAM / KEVIN HACK**

**PRIORITY ROUTE:**

Pfieffer Rd. ( Rt. 30 to Stuenkel Rd.)

Sauk Trail (Center to Harlem)

Charrington Dr.

**ROUTE:**

Charrington Estates

Bowens Crossing

Cambridge

Lawndale

Shenandoah / Pheasant Run

Windy Hill

93<sup>rd</sup> & 94<sup>th</sup> Ave.

**ZONE#4 ST- 31 KYLE MEDEMA**  
**ST-7 KYLE HARTUNG**

**PRIORITY ROUTE:**

Harlem Ave (Steger Rd. to Dralle Rd.)  
Stuenkel Rd. (Harlem Ave. to Ridgeland Ave)  
Dralle Rd. (Harlem Ave. to East End-Dead End)

**ROUTE:**

Lakeview Estates  
Stone Creek  
Frankfort Meadows

**ZONE#5 ST-25 JACK CAMILLERI**  
**ST-18 JONATHAN CARROLL**

**PRIORITY ROUTE:**

Old Frankfort Way  
Nebraska St. (Center Rd. to Rt. 45)  
White St.

**ROUTE:**

Old Towne / All Through Alleys  
Kensington  
Folkers Estates  
Founders Place-Sager Rd.

**ZONE#6 ST-27 MAXWELL TRIEZENBERG**

**PRIORITY ROUTE:**

Nebraska St. (Rt. 45 to 108<sup>th</sup> Ave.)  
Elsner Rd. (Nebraska St. to Rt. 30)  
108<sup>th</sup> Ave. (Nebraska St. to Rt. 30)

**ROUTE:**

Brookside I & II, Brookside Ln.  
Yankee Ridge  
Settlers Pond  
Lincoln Meadows  
Brookridge Creek

**ZONE#7 ST-32 DAVE WERHMAN**

**PRIORITY ROUTE:**

Colorado Ave. (Rt. 45 to Cedar Rd.)

**ROUTE:**

Connecticut Hills

Butternut

Ironwood

Charmaine

Irongate Estates

**ZONE#8 ST-33 CESAR MIRELES**

**PRIORITY ROUTE:**

Colorado Ave. (Rt. 45 to East End)

Lincolnway Ln.

St. Francis Rd. (with Dave)

Market St.

**ROUTE:**

Tanglewood / Overlook

Settlers Croft / Silver Tree

Creekview & Bankview Dr.

Hunt Club Estates

Abbeywoods

**ZONE#9 ST-30 DAVE WALSH**

**PRIORITY ROUTE:**

Rt. 45 Turn Lane at St. Francis Rd.

St. Francis Rd. (with Cesar)

LaPorte Rd. (Rt. 45 to East End)

**ROUTE:**

Walnut Creek

LaPorte Meadows

Crystal Lake

Candle Creek

Shimmering View

Lighthouse Pointe

**ZONE#10**            **ST-28**            **ZACH BLASGEN**  
                         **ST-12**            **MIKE KUSNIERZ**

**PRIORITY ROUTE:**

116<sup>th</sup> Ave. (Steger Rd. to RR Tracks)  
Vans Dr. / 104<sup>th</sup> Ave

**ROUTE:**

Heritage Knolls  
Sandalwood Estates  
Newbrook Estates  
Brookmeadow Estates

**ZONE#11**            **ST-36**            **JOSH JOHNSTON**

**PRIORITY ROUTE:**

Wolf Rd. (Steger Rd. to Rt. 30)

**ROUTE:**

Homestead  
Misty Falls  
Autumn Fields  
Sara Springs  
Vistana  
Old Stone Village

**ZONE#12**            **ST-35**            **MIKE SCHUBBE**

**PRIORITY ROUTE:**

Scheer Rd. (Steger Rd. to Laraway Rd.)  
Steger Rd. (Rt 45 to Scheer Rd.)

**ROUTE:**

Flagstone  
Stonebridge Valley  
Ashington Meadows  
Coquille Pointe  
Cobblestone Walk  
Five Oaks



**ZONE#13**            **ST-26**            **ROBERT KOSALA**  
                         **U-3**                    **BOBBY SCHAEFER**

**PRIORITY ROUTE:**

Steger Rd. (Center Rd. to Harlem Ave.)  
80<sup>th</sup> Ave. (Sauk Tr. to Steger Rd.)

**ROUTE:**

Timbers Edge  
Southwick  
Prestwick - St. Andrews Way, Highland, Shetland  
Cyrstal Brook  
Nature Creek Circle – Lakeview Est.

**ZONE#14**            **U-13**            **MATT FALECZYK**

**ROUTE:**

All Courts in Zone #1

**ZONE#15**            **ST-3**            **GENE KALINOWSKI**

**ROUTE:**

All Courts in Zones # 2

**ZONE#16**            **ST-49**            **RICK REZACK**

**ROUTE:**

All Courts in Zones #3

**ZONE#17**            **W-3**            **ERIC LESIAK**

**ROUTE:**

All Courts in Zones #4

**ZONE#18**            **ST-2**            **JOSE DAMIAN**

**ROUTE:**

All Parking Lots: Village Hall, Heritage Hall, Breidert Green, Prairie Park, New PD, My Sister n Me Lot, Francesca Lot, Chamber Lots, Fra-Milco Lot, Trolley Barn Lot

**ZONE#19**            **ST-15**            **RON TYSEN**

**ROUTE:**

All Courts in Zones # 5

**ZONE#20**            **U-11**            **JOHN CRAVEN**

**ROUTE:**

All Courts in Zones #6

**ZONE#21**            **U-9**                **JESSE KAMINSKI**

**ROUTE:**

All Courts in Zone #7

**ZONE#22**            **ST-13**            **LUPE ORTIZ**

**ROUTE:**

All Courts in Zones # 8

**ZONE#23**            **U-6**                **VINNY CRUDO**

**ROUTE:**

All Courts in Zones #9

**ZONE#24**            **ST-6**                **ROGER MARTINEZ**

**ROUTE:**

All Courts in Zone #10

**ZONE#25**            **ST-5**                **MARK McCLUSKEY**

**ROUTE:**

All Courts in Zones # 11

**ZONE#26**            **ST-8**                **RUBIN MAROSS**

**ROUTE:**

All Courts in Zones #12

**DAN VANDERPOOL**            **ST-16**            **SIDEWALKS**

**We are a team – We will work as a team  
Nobody goes home until everybody is done!!!**

**EXTRA DRIVERS:**

Geoff McDermott

Larry Eisenbrandt

**EXTRA TRUCKS:**

ST-17      U-9      ST-10

U-8      U-5      ST-11

U-12      ST-24      ST-22

**Organization Name:**  
**Village of Frankfort**

**Chloride TLWQS Annual Report**  
**Appendix 4 - Annual Training**

<b>Role in Winter Operations</b>	<b>Training Topics Covered</b>
Village Snow and Ice Control personnel - 25 people from Public Works, Streets, Water, Sewer and Utilities	2022 Deicing Public Roads Virtual Workshop - Salt Smart Collaborative
Village Snow and Ice Control personnel - 34 people from Public Works, Streets, Water, Sewer and Utilities	2022 Snow Plow Meeting - Village of Frankfort

Organization Name:  
Village of Frankfort

Chloride TLWQS Annual Report  
Appendix 5 - Equipment

Type of Equipment	Equipment/Vehicle Number	Type of Spreader (mechanically controlled, computer controlled, etc.)	Type of Material Used with Equipment (Dry, Pre-Wet, Pretreated, Liquids)	Other Important Equipment Information
2022 International HV507 Dump	ST-36	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2021 International HV507 Dump	ST-35	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2020 International HV507 Dump	ST-34	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow
2020 International HV507 Dump	ST-33	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2019 International 7400 Dump	ST-32	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2017 International 7400 Dump	ST-31	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2016 International 7400 Dump	ST-30	computer - Force 5100EX	Dry, Pre-Wet in auger with liquids	Front Plow
2015 International 7400 Dump	ST-29	mechanical-Force SSC2500	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2014 International 7400 Dump	ST-28	mechanical-Force SSC2500	Dry, Pre-Wet in auger with liquids	Front Plow & Side Wing
2013 International 7400 Dump	ST-27	mechanical-Force SSC2500	Dry, Pre-Wet in auger with liquids	Front Plow & Under Body Scraper
2012 International 7400 Dump	ST-26	mechanical-Monroe MC-24	Dry, Pre-Wet in auger with liquids	Front Plow & Under Body Scraper
2011 International 7400 Dump	ST-25	mechanical-Monroe MC-24	Dry, Pre-Wet in auger with liquids	Front Plow & Under Body Scraper
2007 International 7400 Dump	ST-24	mechanical-Monroe	Dry	Front Plow
2005 International 7400 Dump	ST-22	mechanical-Monroe	Dry	Front Plow

Organization Name:  
Village of Frankfort

Chloride TLWQS Annual Report  
Appendix 5 - Equipment

Type of Equipment	Equipment/Vehicle Number	Type of Spreader (mechanically controlled, computer controlled, etc.)	Type of Material Used with Equipment (Dry, Pre-Wet, Pretreated, Liquids)	Other Important Equipment Information
2022 Ford F450 Dump	ST-18	computer - Force 5100EX	Dry	Front Plow
2008 Ford F450 Dump	ST-12	mechanical-Monroe MC-24	Dry	Front Plow
2012 Ford F450 Dump	ST-7	mechanical-Monroe MC-24	Dry	Front Plow
2011 Ford F450 Dump	ST-4	mechanical-Monroe MC-24	Pre-Wet 8-2gpm nozzles	
2014 Chevy Silverado K3500	ST-49	n/a	n/a	Front Plow
2019 Ford F350	ST-17	n/a	n/a	Front Plow
2012 Ford F350	ST-16	n/a	n/a	Front Plow
2008 Ford F350	ST-15	n/a	n/a	Front Plow
2015 Ford F350	ST-14	n/a	n/a	Front Plow
2021 Chevy Silverado K3500	ST-13	n/a	n/a	Front Plow
2015 Ford F350	ST-11	n/a	n/a	Front Plow
2017 Ford F350	ST-10	n/a	n/a	Front Plow
2021 Chevy Silverado K3500	ST-8	n/a	n/a	Front Plow
2012 Ford F350	ST-6	n/a	n/a	Front Plow
2016 Ford F350	ST-5	n/a	n/a	Front Plow
2016 Ford F350	ST-3	n/a	n/a	Front Plow
2007 Ford F250	ST-2	n/a	n/a	Front Plow
2009 International 7400 D	U-21	mechanical-Monroe	Dry	Front Plow
2011 Ford F450 Dump	U-3	computer - Force 5100EX	Dry	Front Plow
2016 Ford F450 Dump	U-14	computer - Force 5100EX	Dry	Front Plow
2015 Ford F350	U-13	n/a	n/a	Front Plow
2011 Ford F350	U-12	n/a	n/a	Front Plow
2021 Chevy Silverado K3500	U-11	n/a	n/a	Front Plow

**Organization Name:**  
**Village of Frankfort**

**Chloride TLWQS Annual Report**  
**Appendix 5 - Equipment**

<b>Type of Equipment</b>	<b>Equipment/Vehicle Number</b>	<b>Type of Spreader (mechanically controlled, computer controlled, etc.)</b>	<b>Type of Material Used with Equipment (Dry, Pre-Wet, Pretreated, Liquids)</b>	<b>Other Important Equipment Information</b>
2021 Chevy Silverado K35	U-9	n/a	n/a	Front Plow
2008 Ford F350	U-8	n/a	n/a	Front Plow
2015 Ford F350	U-6	n/a	n/a	Front Plow
2011 Ford F350	U-5	n/a	n/a	Front Plow
2023 Ford F350	W-3	n/a	n/a	Front Plow

Organization Name:  
Village of Frankfort

Chloride TLWQS Annual Report  
Appendix 6 - Material Storage

Location of Storage Area	Material Stored (Rock Salt, Salt Brine, etc.)	Amount of Material Stored 2022-2023	Material stored under permanent cover? (yes/describe other)	Material stored in a fully enclosed structure? (yes/describe other)	Material stored on an impervious pad? (yes/describe other)	Good housekeeping practices followed at storage area? (yes/describe other)
Public Works	Rock Salt	3000	N/A	Yes	Yes	Yes
Public Works	Inferno Melt	3000	N/A	Other - AST	Yes	Yes
Public Works	PT Liquid	3000	N/A	Other - AST	Yes	Yes



**Organization Name:**  
**Village of Frankfort**

**Chloride TLWQS Annual Report**  
**Appendix 7 - Capital Purchases**

<b>Capital Purchase Description</b>	<b>Plan/Schedule for Purchase</b>
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**Organization Name:**  
**Village of Frankfort**

**Chloride TLWQS Annual Report**  
**Appendix 8 - Chlorides Data**

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