

OPERATIONS WATER QUALITY GUIDE

KEARNEY MS4

OPERATIONS WATER

QUALITY GUIDE

Stormwater Management Plan

For The City of Kearney

AUGUST 2016

APRIL 2018

OCTOBER 2021

SEPTEMBER 2024

Prepared by:

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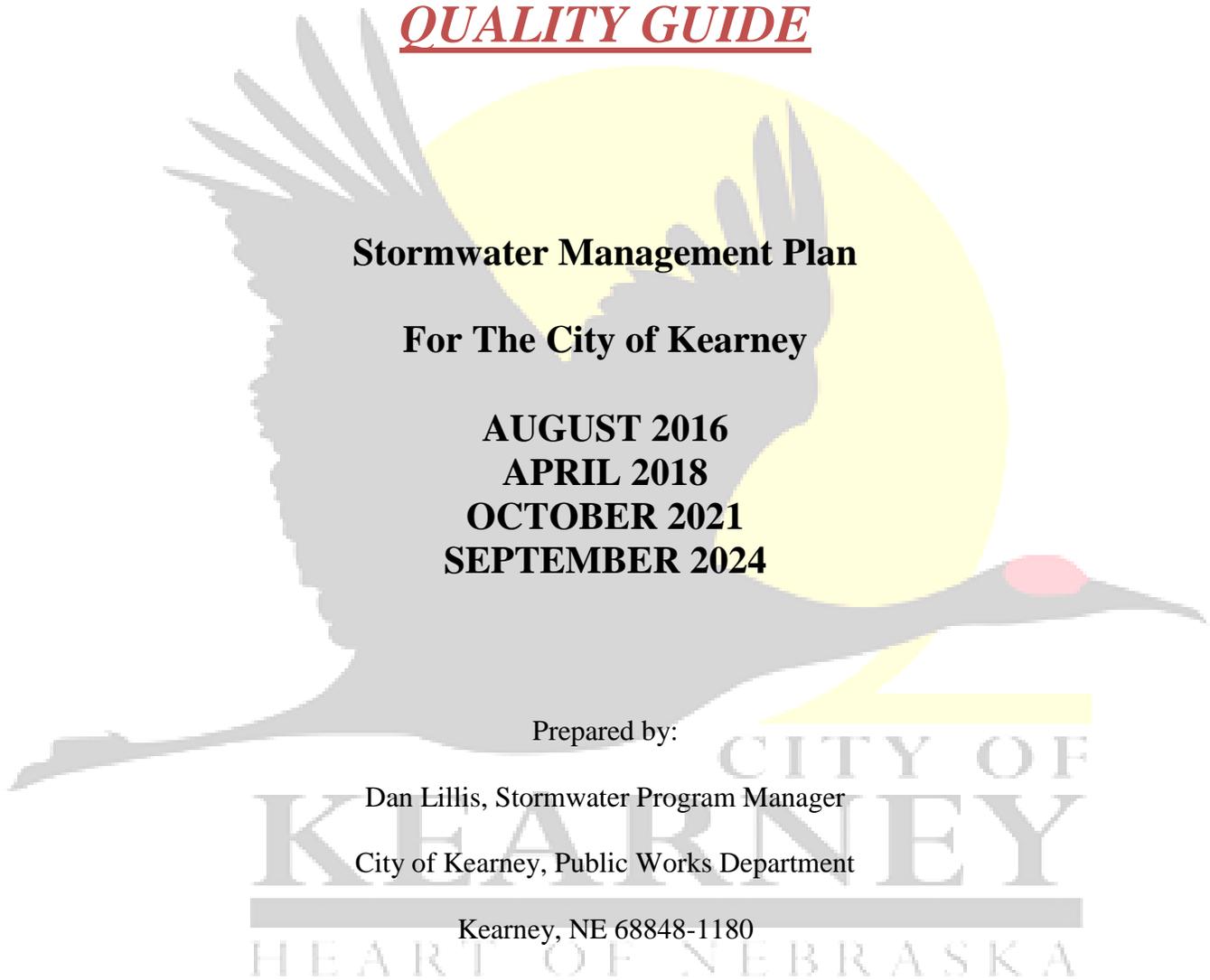
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1. Overview



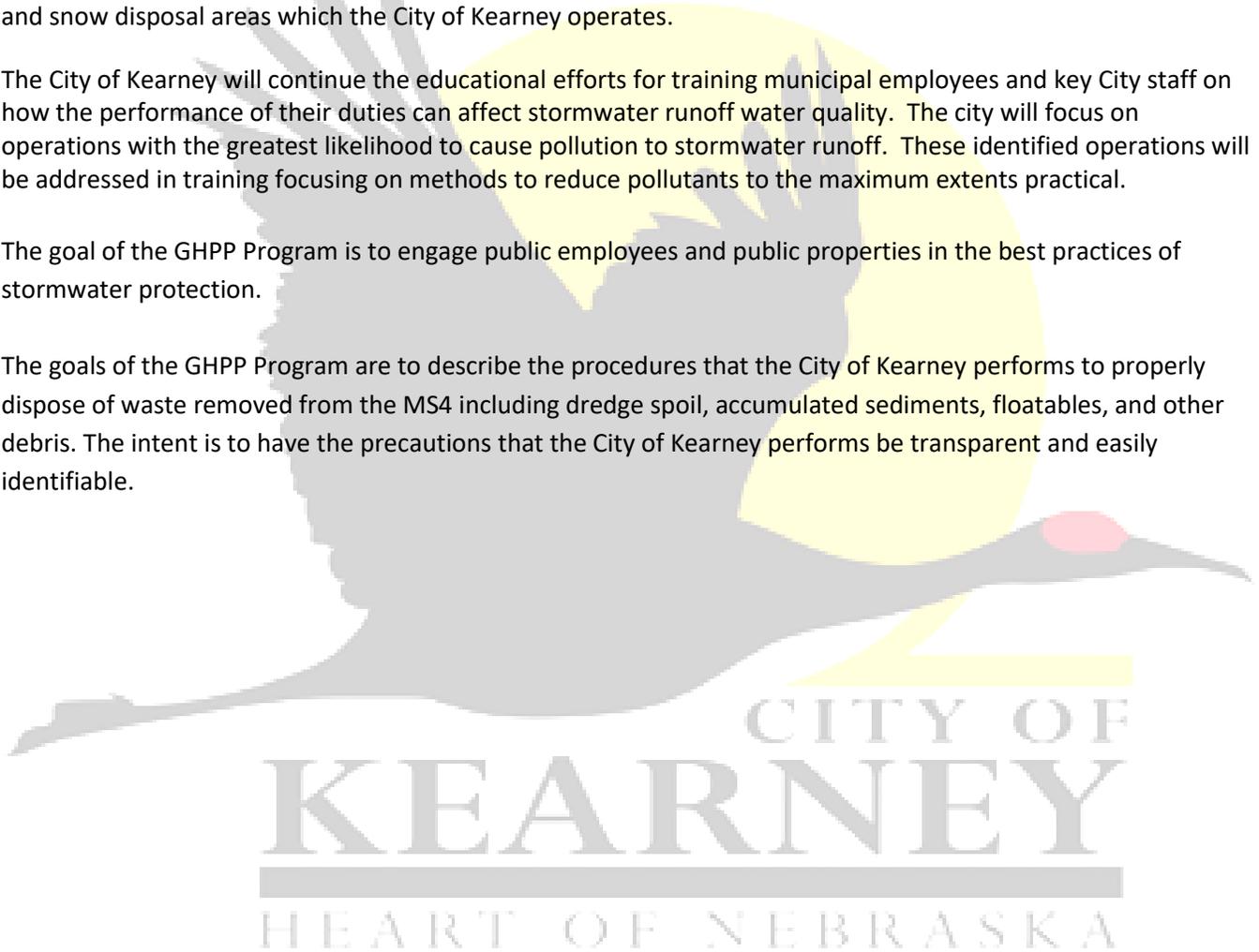
1.a. Mission and Goals of the Good Housekeeping & Pollution Prevention Program

The mission of the Good Housekeeping & Pollution Prevention Program (GHPP) is to reduce or eliminate the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas which the City of Kearney operates.

The City of Kearney will continue the educational efforts for training municipal employees and key City staff on how the performance of their duties can affect stormwater runoff water quality. The city will focus on operations with the greatest likelihood to cause pollution to stormwater runoff. These identified operations will be addressed in training focusing on methods to reduce pollutants to the maximum extents practical.

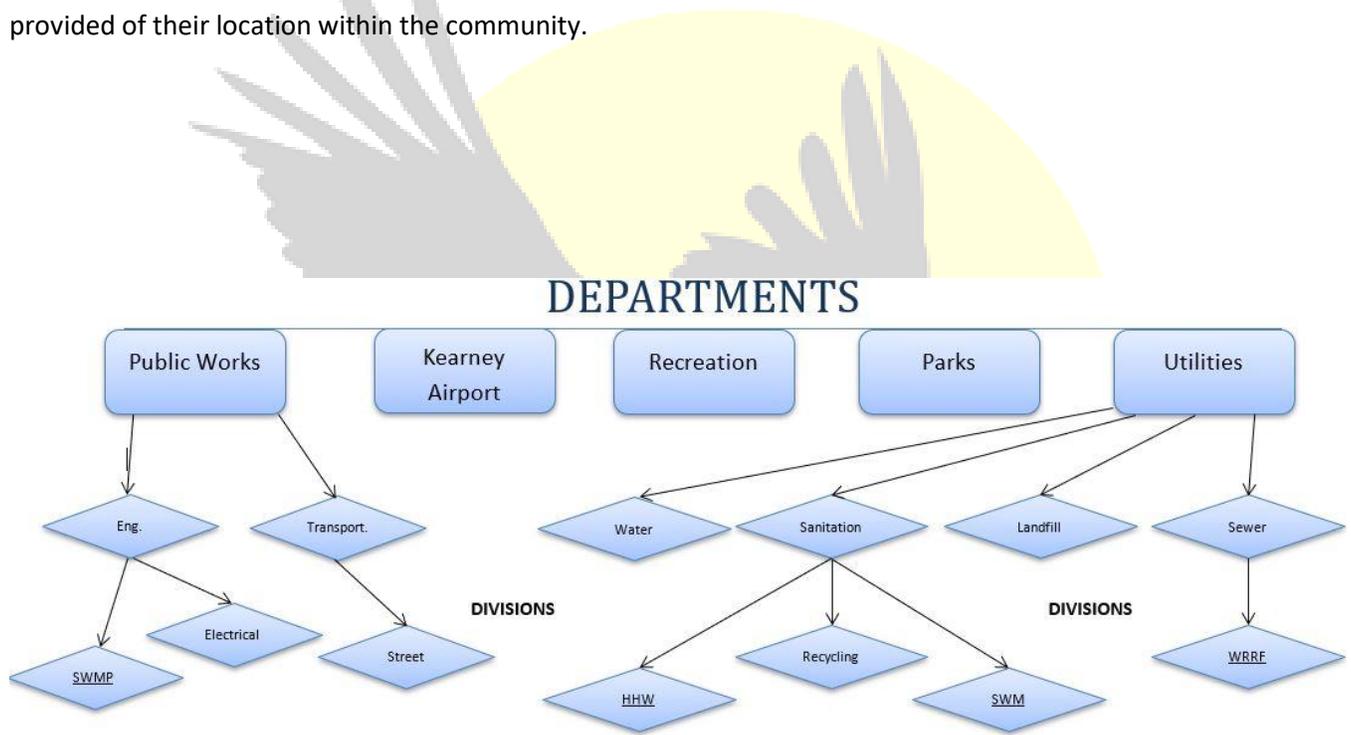
The goal of the GHPP Program is to engage public employees and public properties in the best practices of stormwater protection.

The goals of the GHPP Program are to describe the procedures that the City of Kearney performs to properly dispose of waste removed from the MS4 including dredge spoil, accumulated sediments, floatables, and other debris. The intent is to have the precautions that the City of Kearney performs be transparent and easily identifiable.



1.b. Overview of Program Areas

The City of Kearney has multiple facilities and grounds that house Departments and Divisions which perform necessary operations for the municipality. Departments and Divisions also incorporate the proper Best Management Practices (BMP's) while performing these duties. The Good Housekeeping & Pollution Prevention Program describes these BMP's. Some of these Departments and Divisions perform maintenance on machines-creating hazardous waste material; one Division in particular deals solely with the collection of the municipality's hazardous waste material and is responsible for its handling and transfer. Departments and Divisions which operate within the City of Kearney's municipal jurisdiction are depicted in the illustration below with a map provided of their location within the community.



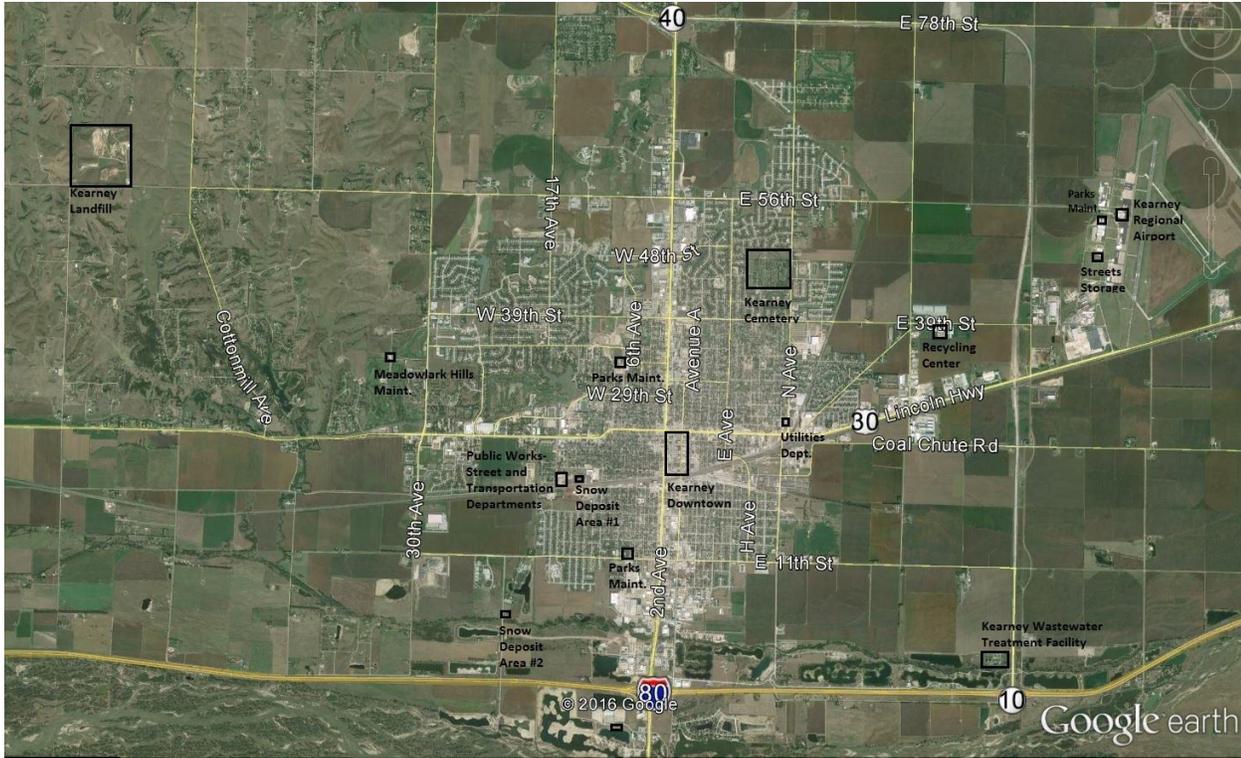
SWMP- Stormwater Management Program

HHW- Household Hazardous Waste

SWM- Solid Waste Management

WRRF- Water Resource Recovery Facility

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1.b.i. Municipal Facilities

The City of Kearney has Departments and Division and with each of these come their needed facilities to perform their day to day operations. For a few of these Departments and Divisions an Industrial Stormwater Permit and No Exposure Certification are required from the NDEQ to perform these operations. The Utilities Department controls the handling of these permits and certification since the divisions that require them report to them. Attached are these facilities NOI's. These divisions are:

- Wastewater Treatment Facility –No Exposure Certification Notification,NER900292
- Kearney Area Solid Waste Agency- Industrial Stormwater Discharge Notification, NER900293
- Kearney Area Recycling Center- Industrial Stormwater Discharge Notification, NER900416
- Kearney Municipal Airport- Industrial Stormwater Discharge Notification, NER910243

Facilities operating within the municipal jurisdiction of the City of Kearney that do not require special permitting or certification include:

- Park and Recreation
- Kearney Cemetery
- Meadowlark Hills Golf Course
- Transportation and Streets
- Sanitation Division
- Snow dump sites
- Tree dump site

A map of the locations of the facilities is below.



1.b.ii. Roadway and Parking Lot Maintenance

The City of Kearney Street Division, under the Public Works Department, routinely repairs sections of streets throughout the Spring, Summer, and Fall. These repairs range from one panel to the whole width of a road. When curb and gutter are under construction the crew ensures proper flow, recognizing the direction of drainage. The Street Division follows repair and maintenance protocol when repairing and maintaining streets or parking lots:

1. The City will schedule concrete and asphalt removal activities during dry weather, unless the work is required as part of the response to an emergency condition.
2. City crews will protect storm drain inlets and watercourses in the immediate vicinity of removal work, prior to breaking up asphalt or concrete.
3. City crews must thoroughly remove pavement which has been broken by repair and maintenance activities.
4. City crew's must utilize proper BMPs around nearby storm drains inlets using sandbags or an equivalent appropriate barrier. If slurry enters the storm drain system, the material is removed immediately.
5. Street sweepers must be called upon to complete the removal of saw cut slurry before the end of the day.
6. Prior to reopening of the construction area sweepers must be called upon to remove any remaining materials.

There are only a handful of municipal parking lots that the City of Kearney is responsible for maintaining. (See aerial below.)

- City Hall
- Kearney Public Library
- Central Ave/North Railroad Street (Southwest corner)
- 24th St./1st Ave

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1.b.iii. Municipal Storm Drain System

The City of Kearney is a Phase 2 ‘MS4’ entity. ‘MS4’ is an acronym for ‘Municipal Separate Storm Sewer System.’ This means that the stormwater that is collected is kept separate from the sanitary sewer that is collected and treated at the Wastewater Treatment Plant. Some communities do not have separate facilities and combine their stormwater with their sanitary sewage and treat the combination at a facility. Issues arise when there is heavy rain and runoff is collected at a rate that is greater than can be treated. This scenario causes overflow of the combination of stormwater and sanitary sewage prior to proper treatment. MS4 entities do not have this issue. However, this also means that none of our stormwater is treated prior to being discharged into states waters.

Our community enlists the aid of Beehive Industries GIS software to keep track of our storm drain system. Upon completion of a project, the as-builts of municipal projects are given to our GIS department who insert the specific location, type, and diameter of the storm pipe into that software. When a section of pipe is flushed or vacuumed of excessive sediment, that effort is acknowledged in the GIS software as well. See illustration below for an example of the information available.

10487 Stormwater Pipe Street View Pictometry Print Summary Close

SUMMARY | PROPERTIES | DOCUMENTS

10487
48" / 380'

MATERIAL:
SURFACE COVER:
ACCESS:

LIFE CYCLE:
SLOPE: 0

Event Information Event

DATE	EVENT	STATUS	DOCUMENTS
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1.b.iv. Municipal Staff Education and Training

The City of Kearney employs nearly 300 full/part time staff in many departments and divisions to ensure the municipality runs smoothly for its residents. Monthly newsletters are sent out to all employees describing facets of the Stormwater Management Program. These newsletters discuss topics such as proper upkeep of Maintenance Yards, Fueling Operations, Stormwater Best Management Practices, Storm Drain Inlet Protection, Above Ground Storage Tank and Spill Control, Hazardous Materials and Hazardous Waste, Rainy Season Preparations, Illegal Dumping and Spill Control Barriers, and Proper Concrete Management Waste...to name a few. The Stormwater Manager circulates these newsletters to all the departments for the City of Kearney.

Occasionally the Stormwater Manager sends out reminders to all City of Kearney employees about proper lawn refuse best management practices and what operations the Sanitation Division offers; leaf removing processes; Earth Day facts, informing them on the quantity of water it takes to perform day to day operations and the time it takes to decompose certain items made of paper or plastic material.

The Kearney Area Recycling Center performs annual Stormwater Pollution Prevention training, reminding employees of ways they can reduce pollutants in the stormwater and advising them the process of using the spill kit.

The Stormwater Manager and the Part Time ESC Inspector routinely update certifications and are sent to conferences of interest around the state to gain better practices for inspecting projects within the jurisdictional boundary of the City of Kearney. An example of one such conference is the 'Demo Days' presented by the NDOR in Grand Island, NE in April, 2016. At this event there were examples of soil and erosion control BMP's on display.

Several formats of training have been given to the members of the departments that deal with the day to day operations of the municipality. Powerpoints, videos, presentations are all given to the employees regarding Stormwater Pollution Prevention. Specifically, the program "Stormwater Pollution Prevention, A Drop In The Bucket," by EXCAL VISUAL, LLP – was created for our employee training. This presentation goes into detail about Good Housekeeping, Spill Prevention, Exposure Minimization, Maintenance, and Spill Clean-up. All these are followed in our employees' day to day operations. A copy of this disc can be found at the Public Works Department with the Stormwater Manager, while the other is circulating amongst departments.

All City of Kearney dump truck/plow operators are required to have a CDL. All operators of the Elgin Street Sweepers, VacCon, VacTor, and jetting vehicles are properly trained in their operations upon delivery of each new vehicle.

All Facility Worker I and II positions must have a 'Pesticide Card, Ornamental and Turf' as part of their job description.

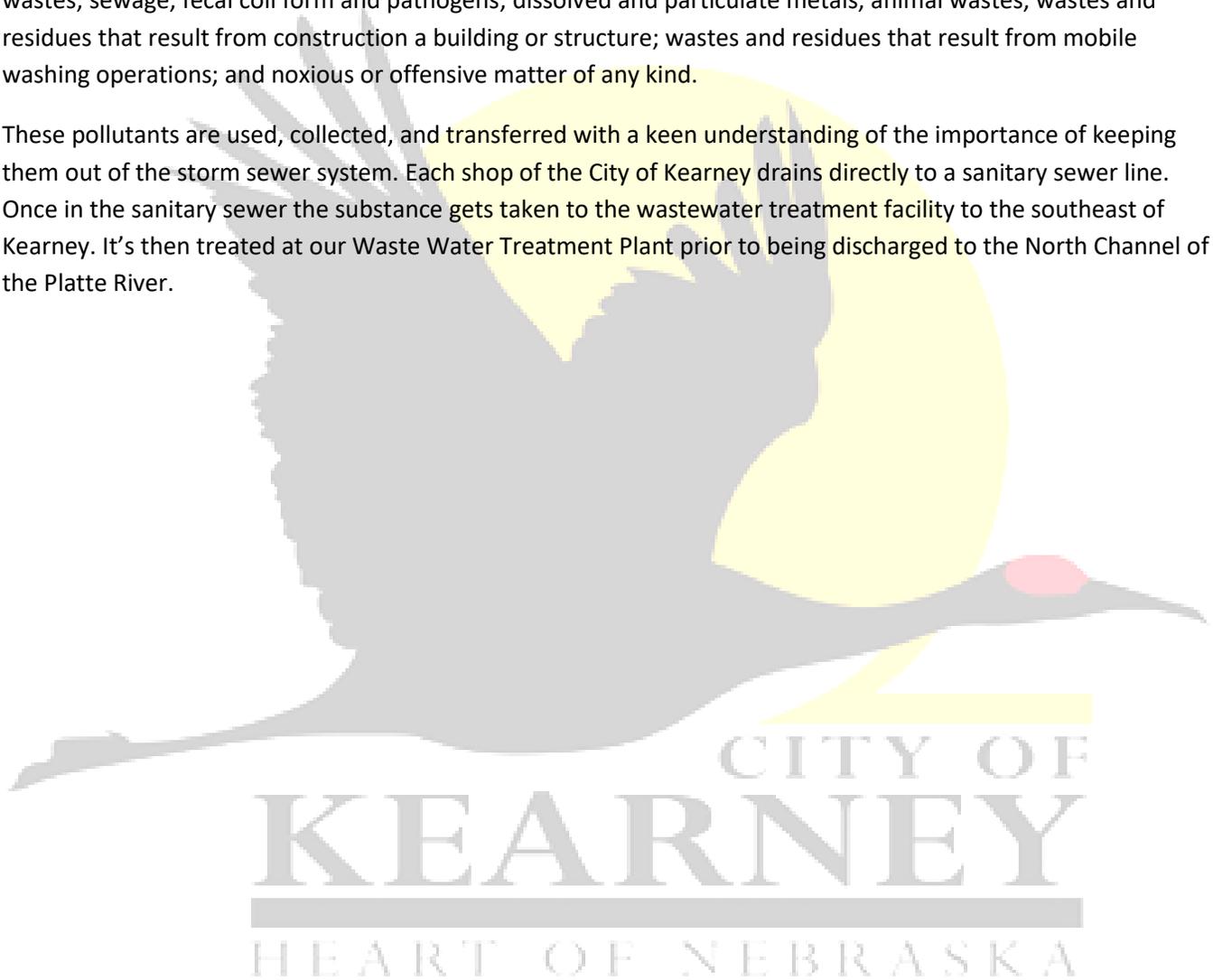
2. Municipal Facilities



2.a. Target Pollutants of Concern

The City of Kearney operations, needed to provide a certain level of quality of life for its residents, deal with a variety of pollutant materials on a daily basis. The list of these materials consists of, but is not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, and accumulations, so that some may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coli form and pathogens; dissolved and particulate metals; animal wastes, wastes and residues that result from construction a building or structure; wastes and residues that result from mobile washing operations; and noxious or offensive matter of any kind.

These pollutants are used, collected, and transferred with a keen understanding of the importance of keeping them out of the storm sewer system. Each shop of the City of Kearney drains directly to a sanitary sewer line. Once in the sanitary sewer the substance gets taken to the wastewater treatment facility to the southeast of Kearney. It's then treated at our Waste Water Treatment Plant prior to being discharged to the North Channel of the Platte River.



2.b. Facility Pollutant Source Activities:

- i. Building and Grounds
- ii. Vehicles and Equipment
- iii. Products Material Storage
- iv. Bulk Fluid Storage
- v. Waste Materials



2.b.i. Building and Grounds

The City of Kearney has areas of use that aren't designated as 'maintenance shops' or 'park and recreation facilities.' Places such as street patching or storage yards that are worked randomly but still receive minimal pollutants. In the spring/summer/fall the Streets Division has multiple crews that are repairing or replacing concrete through the municipality. The duration of construction varies, but typically lasts no more than a week. A list of locations to be completed is created and, ideally, completed by the beginning of winter. It's possible to be weather specific with projects. For example, if a big storm is predicted in three (3) days, then projects that take less than that amount of time are started as to minimize the stormwater pollution runoff. Projects are kept tidy because the public is always watching. To help expedite the process, all subgrade material that is saturated is replaced with crushed concrete. This eliminates otherwise required drying time for existing material. The same process of backfilling is followed by the Water Division when construction on a service or main is required.

The City of Kearney has a grounds designated as the 'tree dump site.' At this site we have stockpiles of dirt of varying saturations and concrete in varying stages. Overexcavation of materials from municipal projects of the Streets Division, Water Division, or a contractor on a municipal project is located at this site. This overexcavated material is turned, repeatedly, until it has reached its proper moisture content. It is then used on projects to get backfill up to grade. The piles of concrete on this site are in varying stages as well. When old concrete is initially brought to the site it is placed in a pile marked 'dirty.' Over time it is dropped over a grate and the soils are separated from the concrete and the remnants are placed in a 'clean' pile. When the 'clean' pile gets too big, a machine is brought in and crushes the concrete down and a 'crushed' pile is created for road beds.

This 'tree dump site' is located adjacent to a lake just south of town (see illustration). There is currently a vegetative buffer between the lake and the site, ranging from 30 to 80 feet thick. There has been a soil berm created between the site and this lake. The idea is to allow the water an opportunity to infiltrate the ground instead of flowing into the lake. There are points of release that allow excessive water to be directed through the vegetative buffer prior to entering receiving waters.

The Park and Recreation Department have made a practice of daily clean-up first thing in the morning at all of the City parks and parking lots. Also, they send crews daily throughout the downtown CBD with buckets to pick up litter. There are fourteen (14) new trash and four (4) recycle bins installed on Central Ave between 20th St. and 25th St. which are emptied daily. Parking lots behind the City Hall at 18 East 22nd St, Kearney Public Library at 2020 1st Ave, at the southwest corner of Central Ave and North Railroad St, and at 17 West 24th St. are all walked through daily for refuse cleanup.

2.b.ii. Vehicles and Equipment

The City of Kearney, in times of expected rainstorms, or extreme weather, puts all equipment indoors. This allows it to be accessible immediately after the event as to address the municipality's needs and it keeps any hazardous material drips away from stormwater runoff. All plows that are hydraulically raised, lowered, and tilted are kept indoors at all times. Any hydraulic fluid drops that may occur with the removal of these blades from the trucks are then accounted for indoors and are either tended to with a spill kit, or washed into the drain which leads to the sanitary sewer line. No oil, from City vehicles, is thrown out for whatever reason. It is kept in a 'waste oil' bin at each facility, to be reclaimed at a later time. The City of Kearney has a contract with 'Tri-State Oil Reclaimers, Inc.' out of Cheyenne, WY. In the case of the Transportation Division, the waste oil is used to heat the facility in the winter.

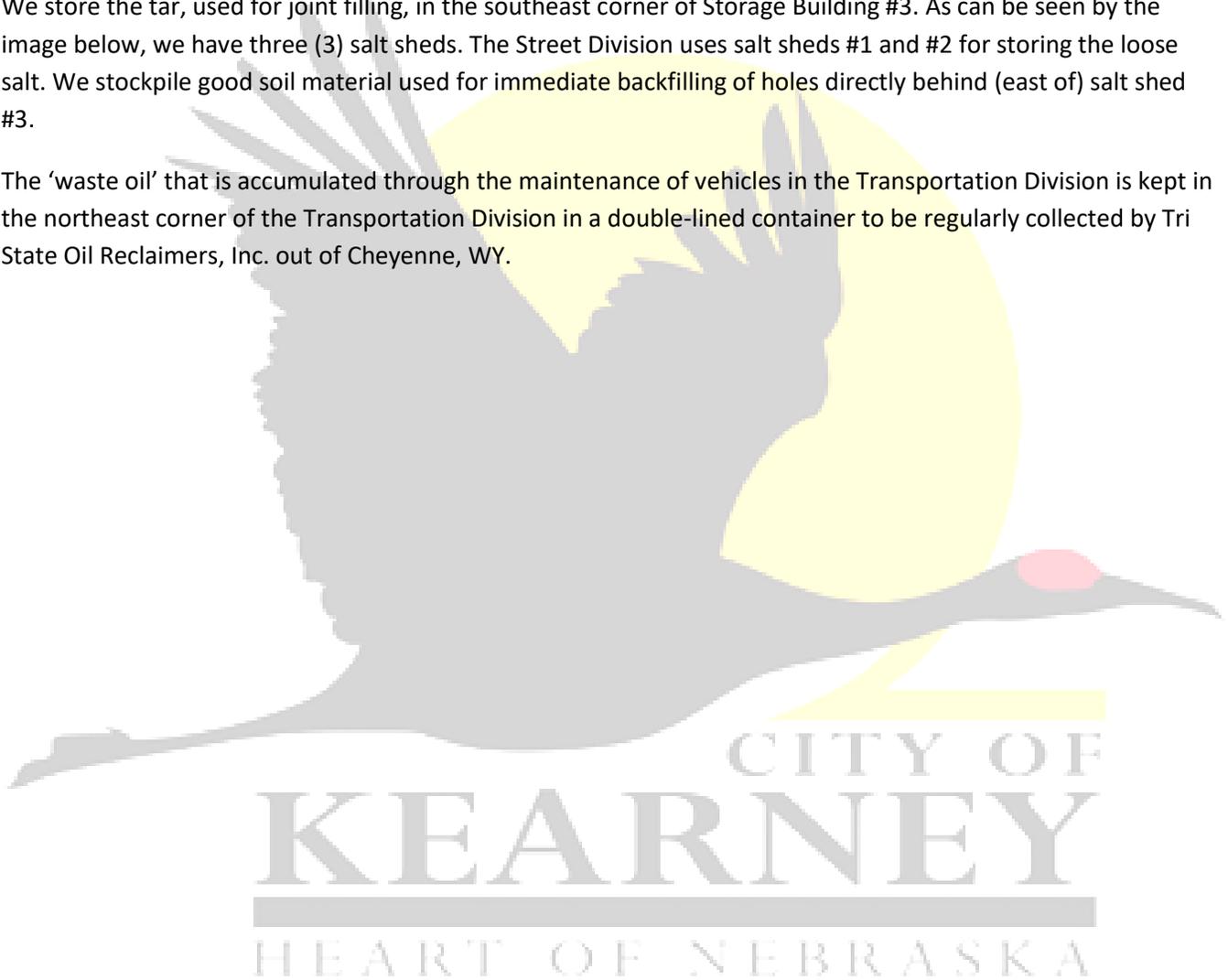
The City of Kearney has hired 'Nebraska Grain and Salt Co.', from Gothenburg, NE to help calibrate our salt spreaders once a year. This enables our operators to more accurately and efficiently spread the salt, when needed, on City streets in times of a snow/ice event. To do this calibration, Nebraska Grain and Salt Co. supplies the mobile scale. We provide the dump truck w/spreader, the salt, and the front end loader. Salt is put into the dump truck on the scale and then the spreader is turned on. The length of time vs. the weight distributed is acknowledged and compared to the onboard computer. Any calibrations are made accordingly. Our Street Department is creating its own hopper/scale to enable us to calibrate our salt spreaders independently.

All vehicles are maintained and repaired by the Transportation Department, located at 1919 15th Ave. This maintenance and repair aspect covers all types of machines, from the smallest riding lawn mower to the largest dump truck in our fleet. Cars and pick-ups have oil changed every 2,000 miles. All dump trucks, garbage trucks, front end loaders, VacCon trucks, VacTor trucks, Jetting trucks, and skid loaders have oil changed every 200 working hours. Needless to say, any issues that impede proper use of equipment are tended to immediately. All the miles and hours are monitored at the filling station on the south side of the Transportation Division shop. There is a software system that is activated by a key from each vehicle/machine. To engage the fuel pump that key must be used and the software keeps a database of each keys miles. Our Vehicle Maintenance Supervisor is alerted by this software when a vehicle/machine is requiring an oil change.

2.b.iii. Product Material Storage

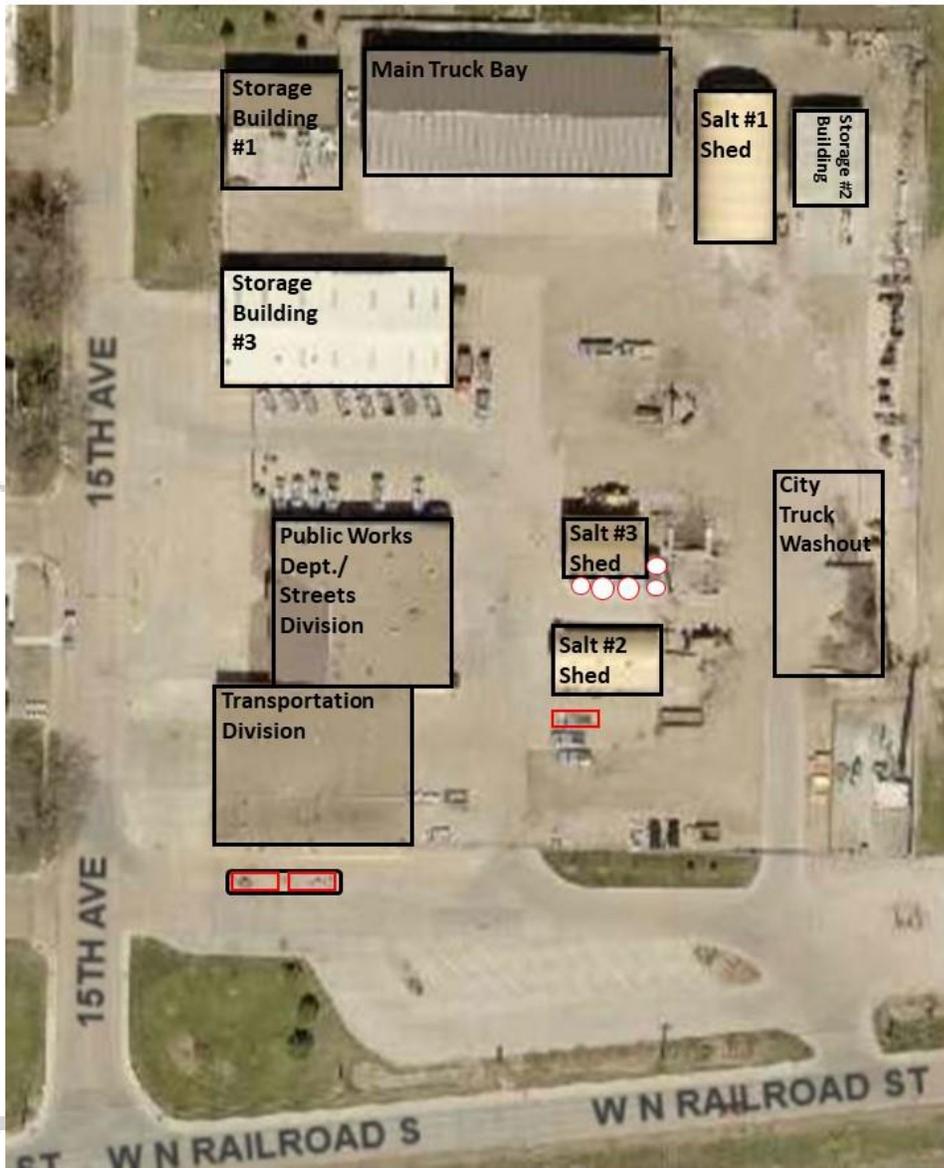
The City of Kearney's Street Division receives material that is put on the streets for different purposes. This material is delivered, when ordered, by Nebraska Grain and Salt, Inc from Gothenburg, NE. ALL of this material is stored at our Streets Division yard at 1919 15th Ave. Also, ALL of this material is stored indoors. Using the aerial image below for guidance, we store our asphalt millings, used for patching potholes in city streets, in the northeast corner of Storage Building #3. These millings are supplied by Flinn Paving Co. Inc., out of Omaha, NE. We store the tar, used for joint filling, in the southeast corner of Storage Building #3. As can be seen by the image below, we have three (3) salt sheds. The Street Division uses salt sheds #1 and #2 for storing the loose salt. We stockpile good soil material used for immediate backfilling of holes directly behind (east of) salt shed #3.

The 'waste oil' that is accumulated through the maintenance of vehicles in the Transportation Division is kept in the northeast corner of the Transportation Division in a double-lined container to be regularly collected by Tri State Oil Reclaimers, Inc. out of Cheyenne, WY.



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FACILITY DESCRIPTION



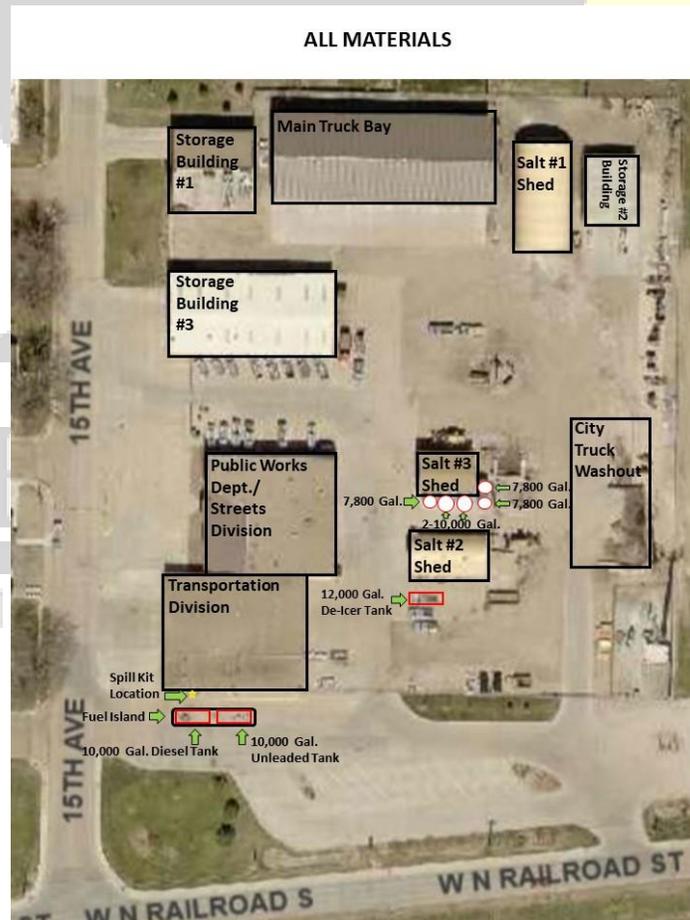
KEARNEY
HEART OF NEBRASKA

2.b.iv. Bulk Fluid Storage

The City of Kearney contains minimal fluids above ground. We have five (5) above ground fluid storage tanks. Two (2) holding 10,000 gallons and three (3) holding 7,800 gallons. The City uses a de-icing agent called “MeltDown Apex” which is a product from Envirotech Services. It contains Magnesium Chloride ($MgCl_2$). These are located on the south and east sides of ‘Salt Shed #3.’ Just South of ‘Salt Shed #2’ is an underground 12,000 gallon tank that holds more of our de-icing agent.

As part of our maintenance program, the City of Kearney collects all used motor oil and reuses it to heat our shop in the winter. The collection point for this used motor oil is in a double-lined 5,000 gallon tank that sits on east side of our Transportation Division shop, as illustrated below. If the oil in the tank gets to the point of capacity then we have Tri State Oil Reclaimers, Inc., from Cheyenne, WY come and remove some of it at cost.

The City of Kearney Public Works Department facility has the main fueling station for the City’s fleet of vehicles. This fueling station is located on the south edge of the Transportation Division shop. There are two (2) underground tanks- a 10,000 gallon tank that contains the diesel fuel and a 10,000 gallon tank that contains the unleaded fuel. At pumps there are signs that advise the driver to “Turn off engine; No Smoking; Remain outside vehicle while fueling; Only use approved containers; Do not use cell phone while fueling; Avoid topping off tank; Make mental note of spill-kit location.” The spill kit is located on the center of the three (3) fueling islands.



2.b.v. Waste Materials

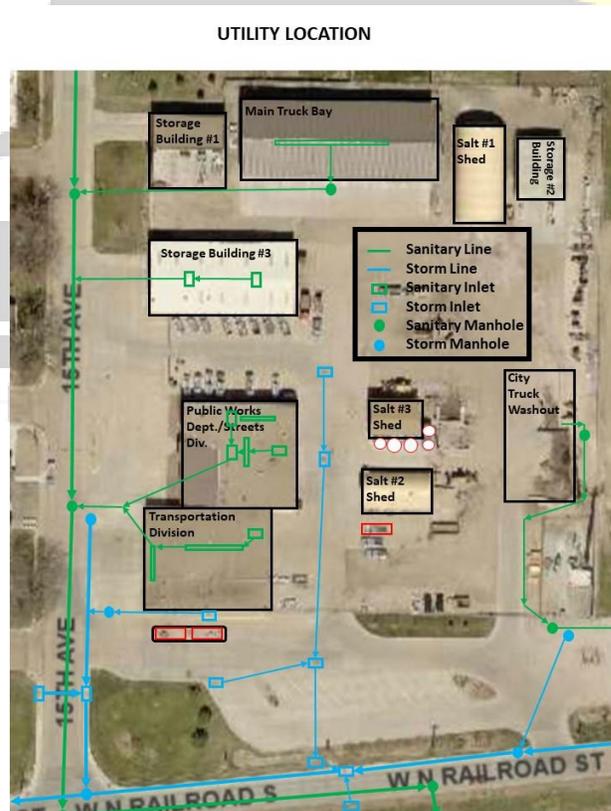
The City of Kearney requires all shop and maintenance facilities to have direct drainage to the municipal sanitary sewer line. This ensures that any hazardous materials that may be dripping or spilled and not cleaned up properly will still be treated prior to reaching the State of Nebraska’s water sources. The City’s fleet of vehicles is maintained at the Transportation Division’s shop. The used oil is accumulated in a ‘waste oil’ 5000 gallon double-lined tank located on the East side of the Transportation Division building.

Our Public Works Department facility, the base for the Street Division and the Transportation Division, has floor drains to catch any hazardous material spills and these floor drains lead to the sanitary sewer line to be treated at the Waste Water Treatment Plant. The drains in the Street and Transportation Divisions shops are flushed out annually in the summer with the Public Works VacCon truck.

The Utilities Department, consisting of the Sanitation, Sewer, Water, and Landfill Divisions has all their vehicles maintained at the Transportation Division shop, located at 1919 15th Ave. They utilize a VacTor truck with a 1500 gallon debris body. After the VacTor truck is no longer needed for a project it is taken to the Waste Water Treatment Plant and its contents are properly disposed of.

The Waste Water Treatment Plant (WWTP) is located on South Cherry Avenue, near Exit 275 on the North side of Interstate 80. The WWTP has a containment policy that is enacted if there is ever a spill. The plant is required to notify the NDEQ if there is ever an overflow of waste.

The Kearney Area Recycling Center Division of the Utilities Department, located at 3007 East 39th St. has multiple spill kits located onsite. Also, there is a drainage system that has a filtration phase that filters out any liquids, such as diesel or hydraulic oil prior to draining into the City’s sanitary sewage system for further treatment.



2.c. Risk Assessment

The City of Kearney identifies its most susceptible facilities for creating or distributing pollutants and performs regular semi-annual evaluations on them. We recognize the following categories as having the chance for the highest risk:

- Site Activities
- Solid Waste Activities
- Grass and Weed Control Activities
- Solvent Usage and Storage
- Used Oil Activities
- Geography (i.e. wetlands near facilities)
- Miscellaneous



2.c.i. Municipal Hot Spot Evaluation

The City of Kearney has used the process of ‘Hot Spot Evaluations’ (HSE) to determine which among its facilities is to receive a ‘Facility Runoff Control Plan’ (FRCP). The purpose of the HSE is to locate high-maintenance facilities of the City of Kearney whose activities pose a threat to the State of Nebraska’s water system. “Hot Spots” are defined as those land uses and physical features that may either contribute pollutant loading to a higher degree or be a recipient of pollutant loading impacts. Using certain criteria a method has been used to ascertain these Hot Spots. Attached below is the HSE form used for each facility. Once a facility is deemed a “Hot Spot” it doesn’t change unless drastic renovations occur. Low maintenance facilities are re-evaluated every two years- per our Stormwater Management Plan description.

Municipal Hot Spot Evaluation

Facility:

Date:

Activity	Never (0)	Occ. (1)	Freq. (2)	Routinely / Everyday (3)	Comments	Score
Maintenance & Repair						
Fueling (0, ≤10, 10-100, >100 gallons)						
Washing						
Outdoor Chemical Storage						
Loading & Unloading						
Outdoor Material Storage						
Dumpsters/Trash Compactors						
Building & Ground Maintenance						
Parking Lot Maintenance						
Turf Management / Landscaping						
						0

Rating

Never = 0 or only rare occasion, Occasionally = 1-2/yr., Frequently = Approx. 1/mo., Routine = At least 1/wk.

Maintenance yards are defined as locations where activities include:

- Vehicle & equipment maintenance & repair (excluding small engine repair)
- Vehicle & equipment fueling (bulk fuel storage capacity - stationary or mobile)
- Vehicle & equipment washing (particularly outdoor washing)
- Vehicle & equipment storage (outdoor)
- Outdoor loading & unloading
- Outdoor material storage (stockpiles & bulk storage, etc.)
- Dumpster/trash compactors for waste management
- Building & Grounds Maintenance (i.e. trench drains, sumps, o/w separators, stormwater drainages)
- Parking Lot Maintenance (i.e. sweeping, patching, paving, grading)
- Turf management & landscaping maintenance (i.e. fertilizer and pesticide management, mixing, storage)

Scale	Result	Action
>20	Hot Spot	FRCP required
10-20	Potential Hot Spot	Targeted Education & Policy (Consider FRCP)
<10	Not a Hot Spot	Targeted Education

2.d.i. Municipal Hot Spot Evaluation Inventory

The City of Kearney has Hot Spot Evaluations for each of its major facilities. The results of these evaluations can be found in 'Appendix A.'



2.e. Facility Runoff Control Plan (FRCP)

- i. Purpose
- ii. Facility List of FRCP's
- iii. FRCP Example

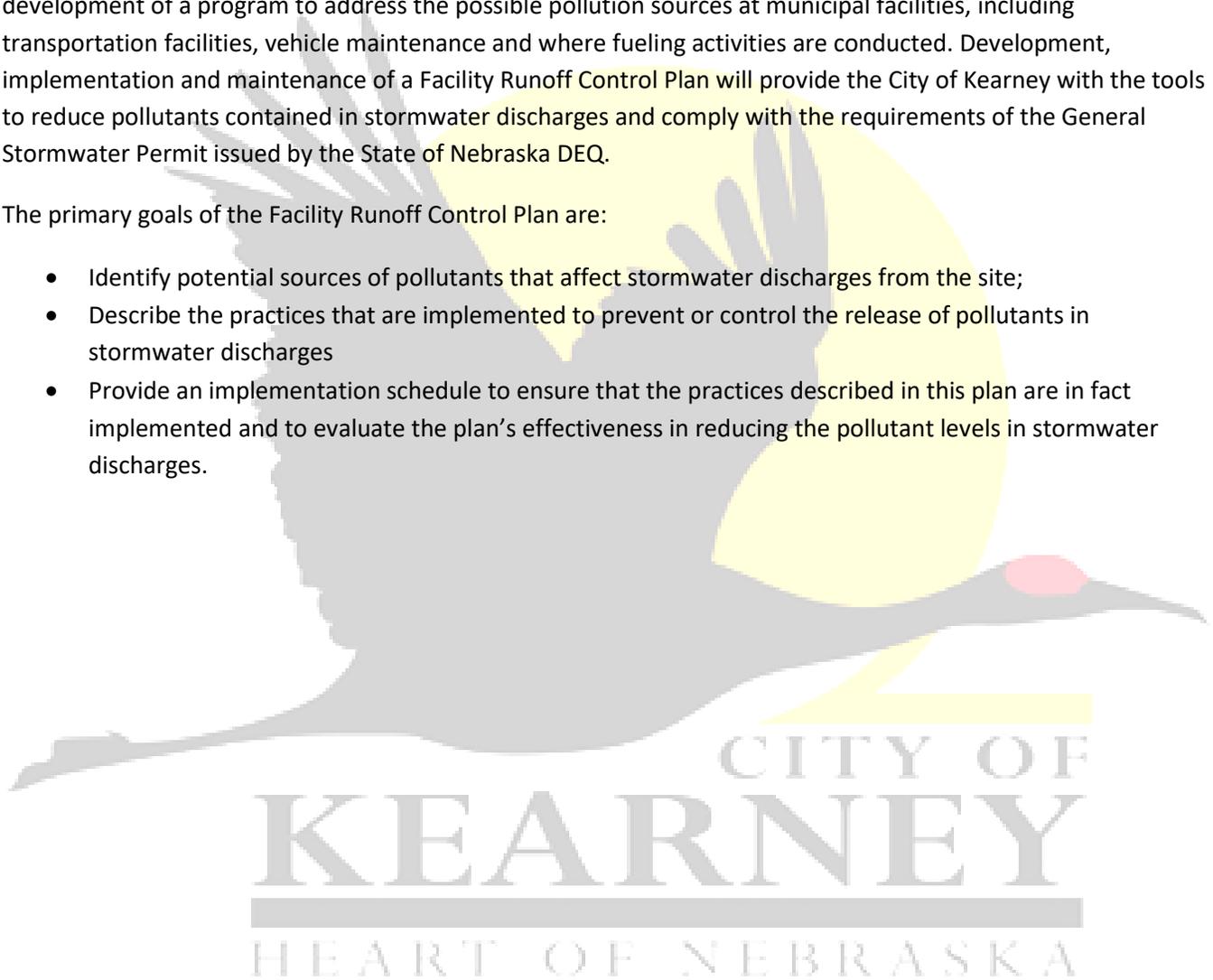


2.e.i. Facility Runoff Control Plan (FRCP)

In 1972, Congress passed the Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), to restore and maintain the quality of the nation's waterways. The ultimate goal was to make sure those rivers and streams were fishable, swimmable and drinkable. In 1987, the Water Quality Act added provisions to the CWA that allowed the EPA to govern stormwater discharges from industrial activities. EPA published the final notice for Phase I of the Multi-Sector General Stormwater Permit program in 1995 which included provisions for the development of a program to address the possible pollution sources at municipal facilities, including transportation facilities, vehicle maintenance and where fueling activities are conducted. Development, implementation and maintenance of a Facility Runoff Control Plan will provide the City of Kearney with the tools to reduce pollutants contained in stormwater discharges and comply with the requirements of the General Stormwater Permit issued by the State of Nebraska DEQ.

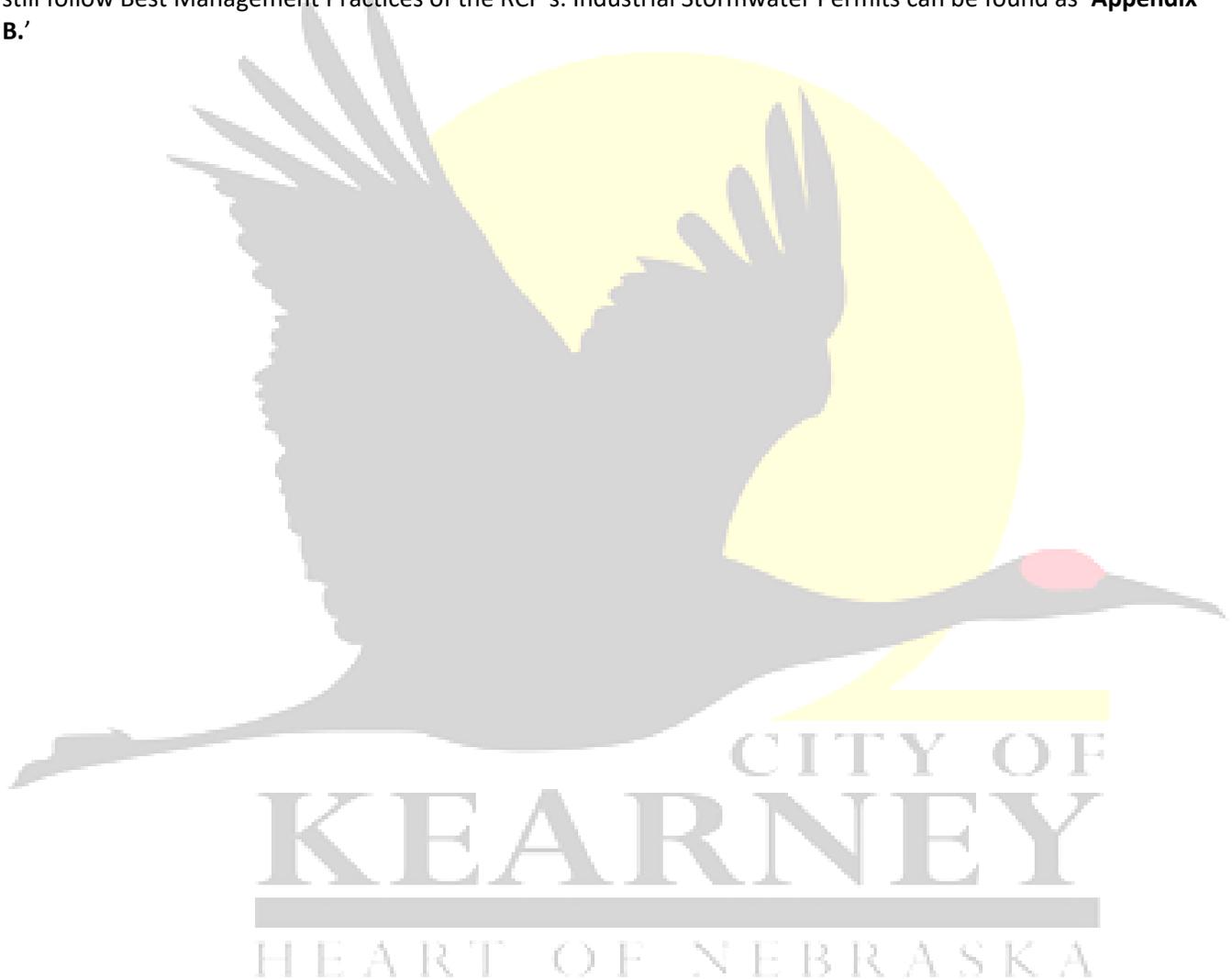
The primary goals of the Facility Runoff Control Plan are:

- Identify potential sources of pollutants that affect stormwater discharges from the site;
- Describe the practices that are implemented to prevent or control the release of pollutants in stormwater discharges
- Provide an implementation schedule to ensure that the practices described in this plan are in fact implemented and to evaluate the plan's effectiveness in reducing the pollutant levels in stormwater discharges.



2.e.ii. Municipal Maintenance and Industrial Facilities List

With over 35 facilities located in various areas around the city, there are many locations to focus on. The City of Kearney is responsible for the maintenance and upkeep of nineteen Parks, three Water Towers, four Fire Stations and training grounds facilities, as well as Department and Division offices. 'Hotspot Evaluations' were completed on all facilities with the results of these indicated in '**Appendix H**'. All facilities with a rating greater than twenty (20) must implement a Runoff Control Plan. Any facility with a score less than 20 (twenty) should still follow Best Management Practices of the RCP's. Industrial Stormwater Permits can be found as '**Appendix B**.'



2.e.iii. FRCP Example

An example of a completed FRCP Table of Contents can be found in ‘**Appendix C**’



2.f. Essential Staff Roles and Policy Summary

Dan Lillis, the Stormwater Program Manager will be designated as the plan coordinator. The facility manager will be responsible for the following duties as they pertain to the Runoff Control Plan:

- Identify individuals to aid in the implementation of the plan;
- Implement the Runoff Control Plan;
- Oversee maintenance practices identified as BMPs in the plan;
- Implement and oversee employee training (with direct assistance from the Storm Water Program Manager);
- Conduct required semi-annual inspection; (See Page 15)
- Identify other potential pollutant sources and make sure they are added to the plan;
- Identify any deficiencies in the Runoff Control Plan and make sure they are corrected;
- Prepare and submit reports; and
- Ensure that any changes in facility operation are addressed in the Runoff Control Plan.

Good Housekeeping/Pollution Prevention inspections **will be conducted by Qualified Personnel** on a semi-annual basis using the inspection form provided in Appendix B. An Inspector is considered qualified at the discretion of the Facility Supervisors. At a minimum, a Qualified Inspector will have read this Runoff Control Plan, be familiar with the Spill Response Plan and Procedures, receive a briefing from Stormwater Program Manager on the inspection process, and participate in spill control and hazardous waste control when provided by the City of Kearney. The following personnel will be involved in managing and conducting the inspections as well as participating in random inspections by the stormwater program management.

Fleet Maintenance Supervisor

Neal Berke

Street Superintendent

Brandon Shafto

Additional Qualified Inspectors:

1. Kyle Pohlman- Memorial Park
2. Steve Baye -Cemetery
3. Robert Butler- Golf Course
4. Travis Mieth- Patriot Park

5. Dan Lillis- Public Works Dept.
6. Michael Fearnley – Yanney Park
7. _____
8. _____



2.g. Records and Reports Summary

RECORD KEEPING AND AUTHORIZED SIGNATURES

Records will be kept of all significant stormwater pollution events (e.g., spills/releases), in-house inspections, follow-up responses to these inspections, and any significant changes in onsite activities associated with the transportation/streets facility. These records shall be maintained for at least three years.

Record Retention Requirements

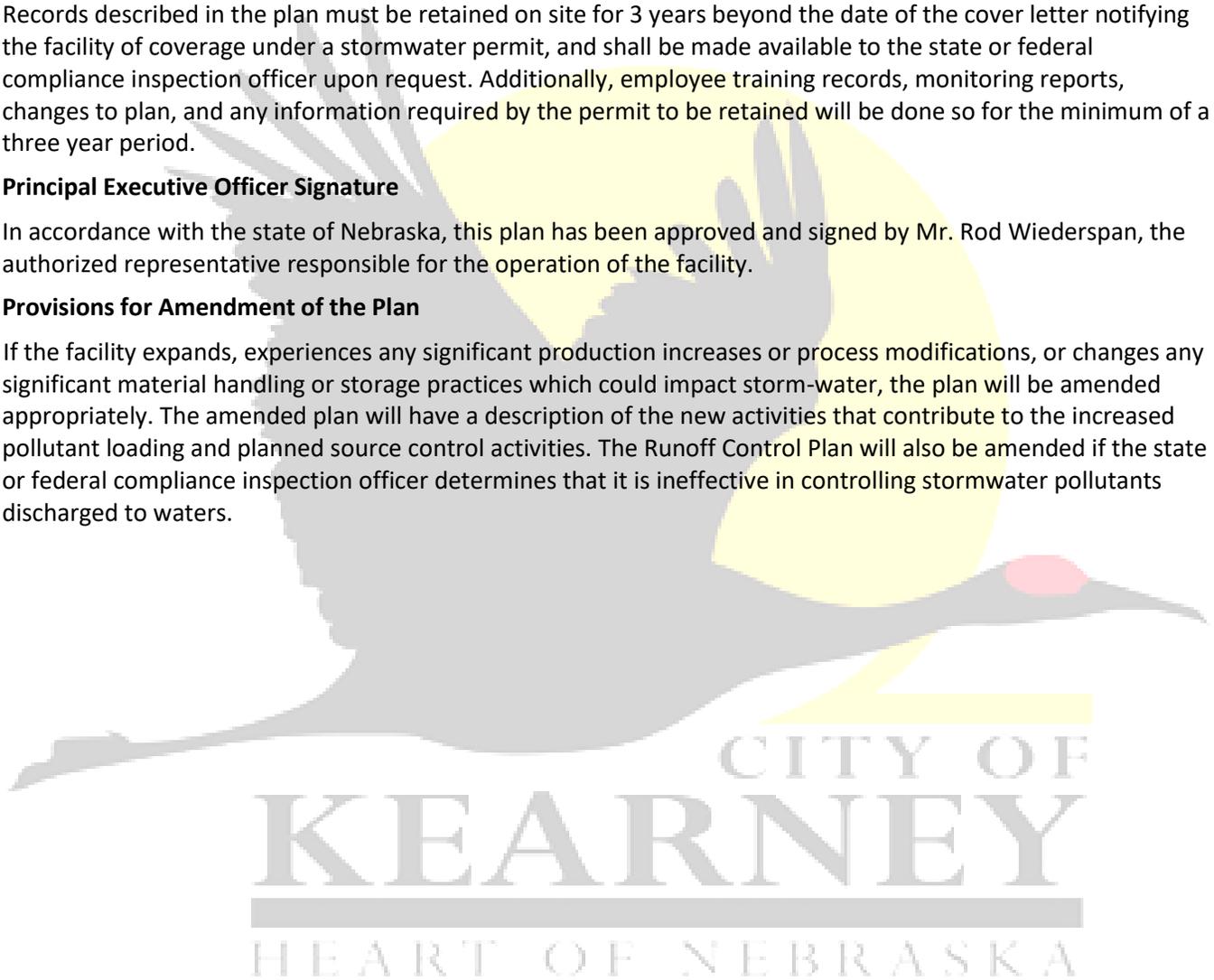
Records described in the plan must be retained on site for 3 years beyond the date of the cover letter notifying the facility of coverage under a stormwater permit, and shall be made available to the state or federal compliance inspection officer upon request. Additionally, employee training records, monitoring reports, changes to plan, and any information required by the permit to be retained will be done so for the minimum of a three year period.

Principal Executive Officer Signature

In accordance with the state of Nebraska, this plan has been approved and signed by Mr. Rod Wiederspan, the authorized representative responsible for the operation of the facility.

Provisions for Amendment of the Plan

If the facility expands, experiences any significant production increases or process modifications, or changes any significant material handling or storage practices which could impact storm-water, the plan will be amended appropriately. The amended plan will have a description of the new activities that contribute to the increased pollutant loading and planned source control activities. The Runoff Control Plan will also be amended if the state or federal compliance inspection officer determines that it is ineffective in controlling stormwater pollutants discharged to waters.



2.h. Contractual Obligations for Maintenance

The City of Kearney has crews in all departments that perform the day to day maintenance for the municipality's infrastructure. Our Streets Division performs the maintenance on the roads. We have a Transportation Division that performs the needed maintenance on the fleet of municipal vehicles. There are multiple crews that work on sidewalks and streets. The Water Division has a crew that makes the connections to the existing mains for new water services. The Sanitation Division has a crew that performs preventative maintenance on sanitary lines. When there are redevelopment/rebuild/rehabilitation projects on streets, there is contractual maintenance that is described differently from project to project. The contracts are available upon request.



3. Roadway and Parking Lot Maintenance

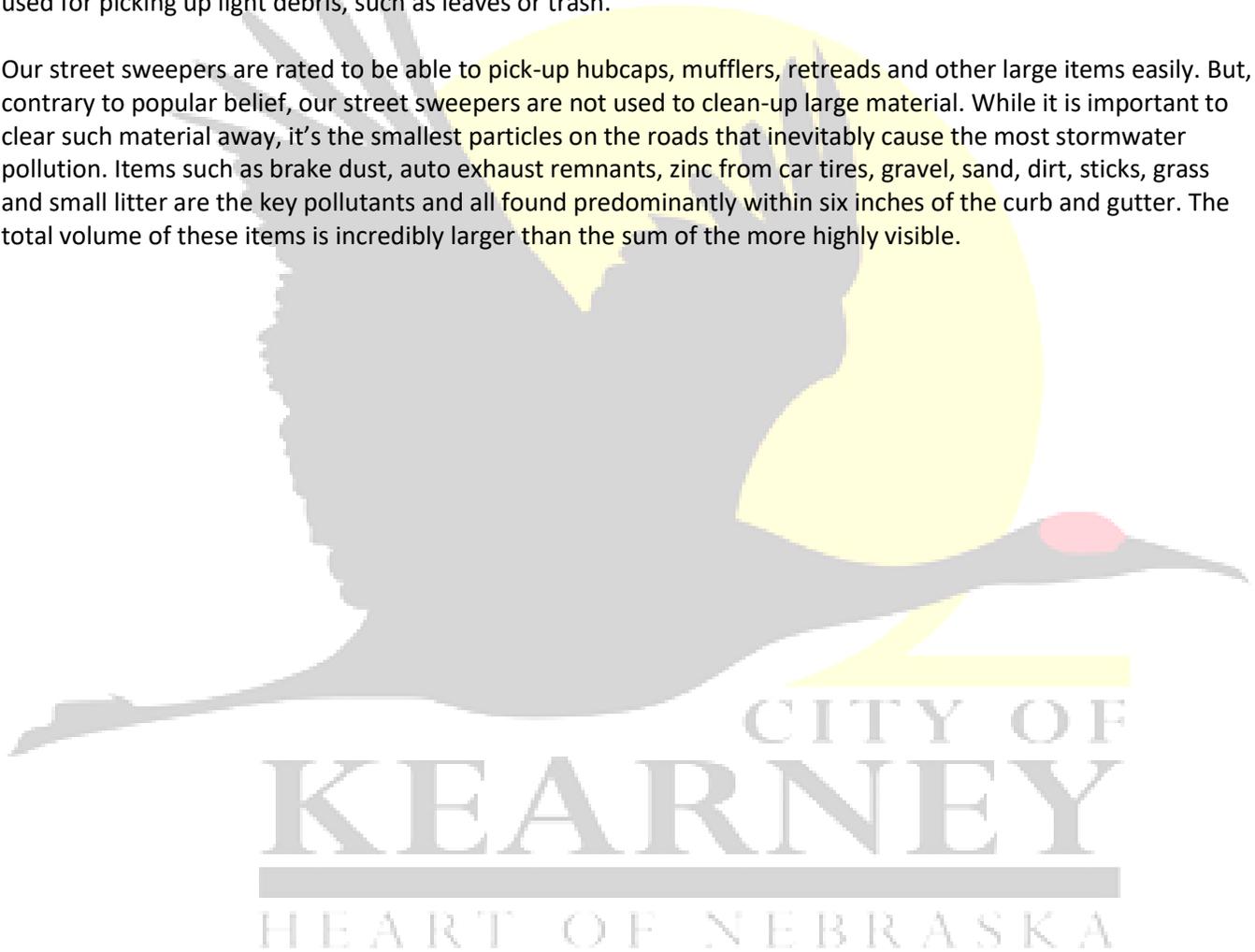


3.a. Target Pollutants of Concern

At this time the City of Kearney has 494 lane miles of concrete, 54 lane miles of asphalt, 14 lane miles of gravel, and 5 lane miles of brick streets. Maintaining this many miles of streets (567 miles of streets) would be like sweeping, moving snow, or generally maintaining one lane of interstate 80 from Omaha to Denver.

We have two full-time street sweeping operators who use two types of machines: An Elgin “Whirlwind,” which is a dry vacuum sweeper; and two Elgin “Eagles,” which are wet mechanical sweepers. Each of these types has their specialty for use. The Eagles are best used for picking up gravel and minor sediment residue by wetting it down and brushing it into a hopper with multiple sets of brushes on the sides and in the rear. The Whirlwind is used for picking up light debris, such as leaves or trash.

Our street sweepers are rated to be able to pick-up hubcaps, mufflers, retreads and other large items easily. But, contrary to popular belief, our street sweepers are not used to clean-up large material. While it is important to clear such material away, it's the smallest particles on the roads that inevitably cause the most stormwater pollution. Items such as brake dust, auto exhaust remnants, zinc from car tires, gravel, sand, dirt, sticks, grass and small litter are the key pollutants and all found predominantly within six inches of the curb and gutter. The total volume of these items is incredibly larger than the sum of the more highly visible.



3.b. Roadway Street Sweeping

- i. Risk Assessment
 - 1. Prioritization and Frequency Determination
 - 2. Map
- ii. Sweeping Protocols
- iii. Disposal Protocols



3.b.i. Risk Assessment/Prioritization/Frequency

Street Sweeping Process within City Limits:

At this time the City of Kearney has about 600 lane miles of streets. Maintaining this many miles of streets would be like sweeping, moving snow, or generally maintaining one lane of interstate 80 from Omaha to Denver. Our Street Sweeping Program Goals are:

- 1) Set priorities for sweeping frequency based on factors such as traffic volume, land use, proximity to water courses, and field observations of material accumulation
- 2) Establish and maintain a consistent sweeping schedule
- 3) Sweep streets just prior to the beginning of the wet season, operating three (3) sweepers during this time. (i.e. during September and October)
- 4) Continue to maintain a record-keeping system to evaluate the effectiveness of the program.

We have two full-time street sweeping operators who use two types of machines: An Elgin “Whirlwind,” which is a dry vacuum sweeper; and two Elgin “Eagles,” which are wet mechanical sweepers. Each of these types has their specialty for use. The Eagles are best used for picking up gravel and minor sediment residue by wetting it down and brushing it into a hopper with multiple sets of brushes on the sides and in the rear. The Whirlwind is used for picking up light debris, such as leaves or trash.

Frequency and Routine:

The City of Kearney is divided into four quadrants (NE, SE, NW, SW). Each of our two operators are responsible for sweeping two quadrants. They start in one quadrant one day and then move to their other quadrant the next day. The operators can cover the same stretch of street as many as 3-4 times per year. The prioritization of routes depends on how well trafficked a road is.

- Major Arterials (2nd Ave, Hwy 30) are swept weekly
- Major Collectors (56th St., 39th St., 11th St., 30th Ave, and Ave N) are swept weekly
- Minor Collectors, High Visibility (17th Ave, Ave E, Central Ave) are swept weekly

Residential Roads are swept on average 304 times a year

3.b.ii. Sweeping Protocols

The City of Kearney currently has three (3) 'Elgin' brand industrial street sweepers. There is one that operates dry (Whirlwind model) and two that operate with water (Eagle model). The City has two designated street sweeping operators. These operators drive the Eagle models the majority of the time unless they are picking up leaves or refuse and need a bigger hopper. The City of Kearney is divided into four quadrants (NE, SE, NW, SW) based off of 2nd Ave and US Hwy 30. Each of our two operators is responsible for sweeping two quadrants. They start in one quadrant one day and then move to their other quadrant the next day. The operators can cover the same stretch of street as many as 3-4 times per year.

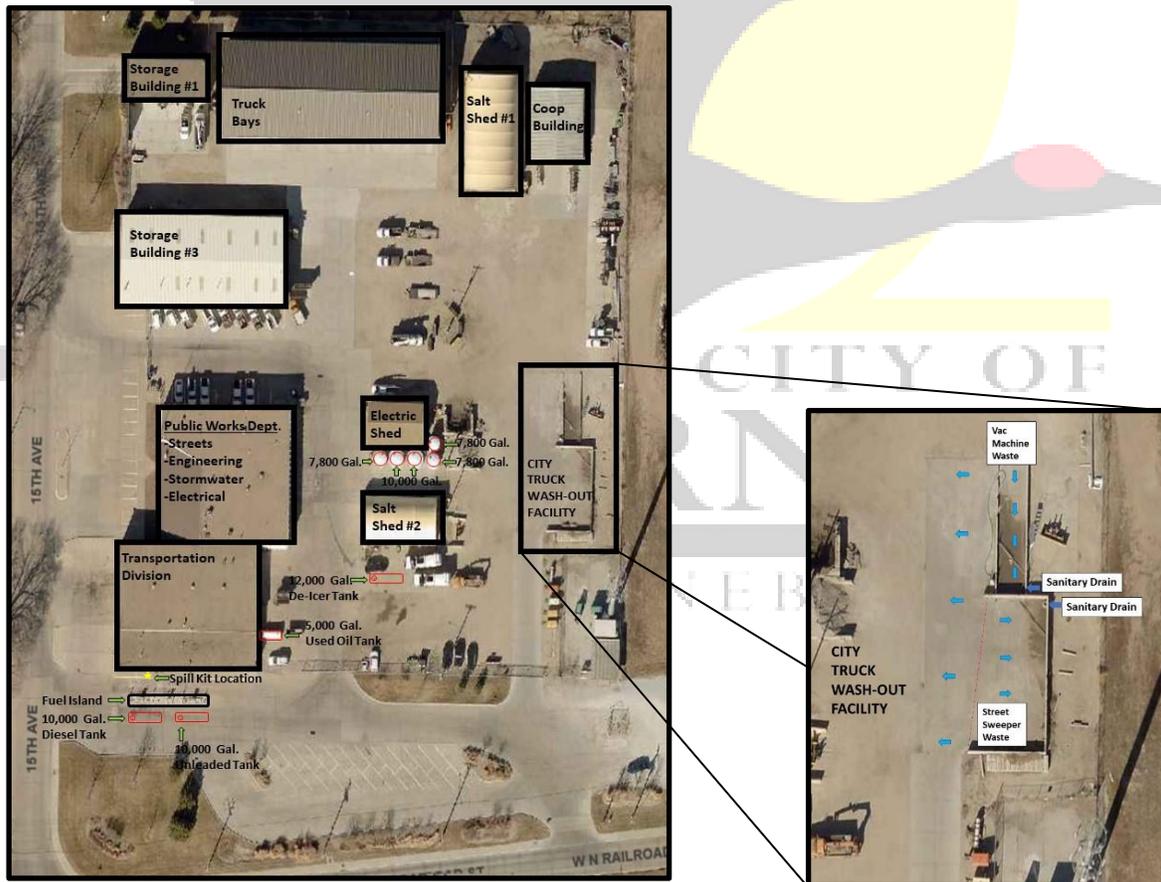
The prioritization of routes depends on how well trafficked a road is. When the hopper on the sweepers is filled, the operator drives back to the City of Kearney Public Works Department at 1919 15th Ave and dumps at the designated 'City Truck Wash-Out Facility.' (See Illustration). At this facility the material is unloaded and all liquid that is accumulated separates from the solids amongst multiple filtering devices before going to the sanitary sewer line on the way to the Waste Water Treatment Plant.



3.b.iii. Disposal Protocols

The City of Kearney currently has three (3) 'Elgin' brand industrial street sweepers. There is one that operates dry (Whirlwind model) and two that operate with water (Eagle model). The City uses the practice of lightly wetting streets as they are swept, for maximum material pick-up efficiency. Currently, water usage for street sweeping is in the range of 20 to 50 gallons per curb mile. This minimal amount of water has been observed to evaporate, rather than to flow into the storm drains and watercourses. The use of a small amount of water is important for dust control, air pollution prevention and for improving particle adhesion.

The City has two designated street sweeping operators. These operators drive the Eagle models the majority of the time unless they are picking up leaves or refuse and need a bigger hopper. When the hopper on the machine is full, which can be as often as five (5) times daily, the operator returns to the Public Works yard where there is a 'City Truck Washout Facility.' At this facility the waste material is dumped and the debris (wet and dry) sits in a designated location. While it sits, the wet material drains to a sanitary sewer area inlet with different levels of protection as to get out as many sediment particles as possible. Once a week this collected material is hauled off to the Kearney Landfill where it is put in a designated cell. The front-end loader operators at the Kearney Landfill will routinely turn this collected material for 6-12 months before moving it to the lined public unloading cell with the purpose of allowing it to help with the decomposition of everyday garbage.



OPERATIONS WATER QUALITY GUIDE



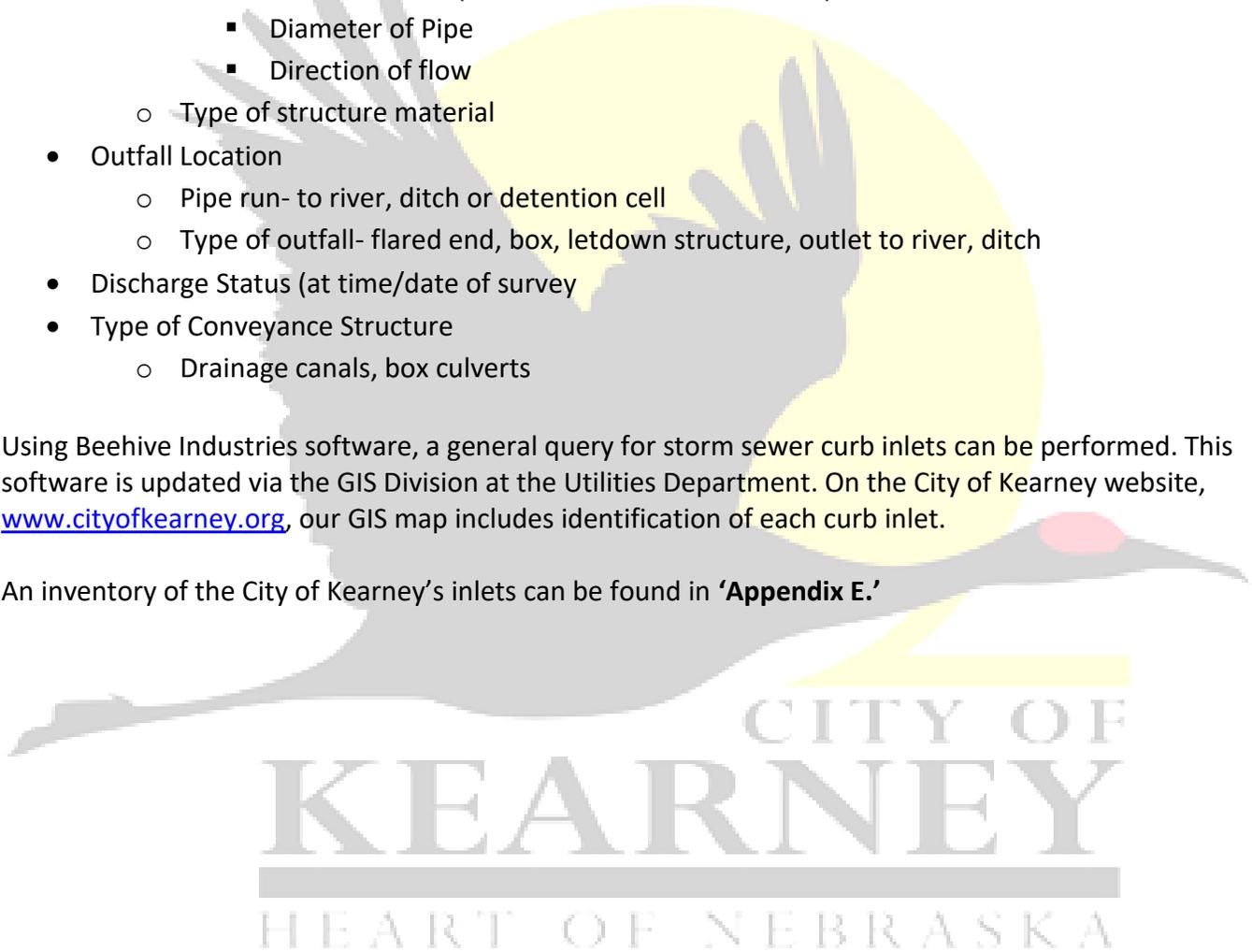
3.c. Catch Basin Inventory

The City of Kearney implements a Storm Drain mapping system using Beehive Industries. Within this mapping system there are many features that records are kept on. These features include:

- Rim Elevation
- Flowline Elevation (invert taken from Rom or surveyed top of structure)
 - Inlets/Outlet pipes at structure
 - Flowline Invert (Calculated from rim elevation)
 - Diameter of Pipe
 - Direction of flow
 - Type of structure material
- Outfall Location
 - Pipe run- to river, ditch or detention cell
 - Type of outfall- flared end, box, letdown structure, outlet to river, ditch
- Discharge Status (at time/date of survey)
- Type of Conveyance Structure
 - Drainage canals, box culverts

Using Beehive Industries software, a general query for storm sewer curb inlets can be performed. This software is updated via the GIS Division at the Utilities Department. On the City of Kearney website, www.cityofkearney.org, our GIS map includes identification of each curb inlet.

An inventory of the City of Kearney's inlets can be found in '**Appendix E.**'



3.d. Catch Basin Cleanout

- i. Prioritization and Frequency Determination
- ii. Cleanout Protocols
- iii. Disposal Protocols



3.d.i. Prioritization and Frequency Determination

The City of Kearney Public Works Department is responsible for the cleanouts of curb inlets (Catch Basins). These curb inlets are addressed when concerned citizens call-in to the Stormwater Manager or register an issue on 'Access Kearney' (our communities hotline link is at www.cityofkearney.org. homepage) Preventative maintenance is performed on transitional areas where concrete turns to gravel and has inlets nearby. There is usually more maintenance performed on inlets that were involved in a redevelopment process. The construction activity inevitably gets dirt/rock in the curb inlet and needs to be replaced. These are acknowledged upon the completion of construction activity and the contractor is required to clean out the inlets as necessary.

An inspection procedure of prioritizing storm drain systems and catch basins clean-out has been established. When the depth of the deposits are greater than 1/3 the diameter of the pipe, maintenance is required. After each storm a physical inspection of known areas of concern is done, if there are blockages or pollution problems, they addressed. A list of these inlet locations is provided the crew periodically from the Stormwater Manager/Engineering Assistant. Upon completing the clean-out and jetting of the curb inlet, the crew return the paperwork to the Engineering assistant who then enters that information into the Beehive Industries software for that specific Curb Inlet.

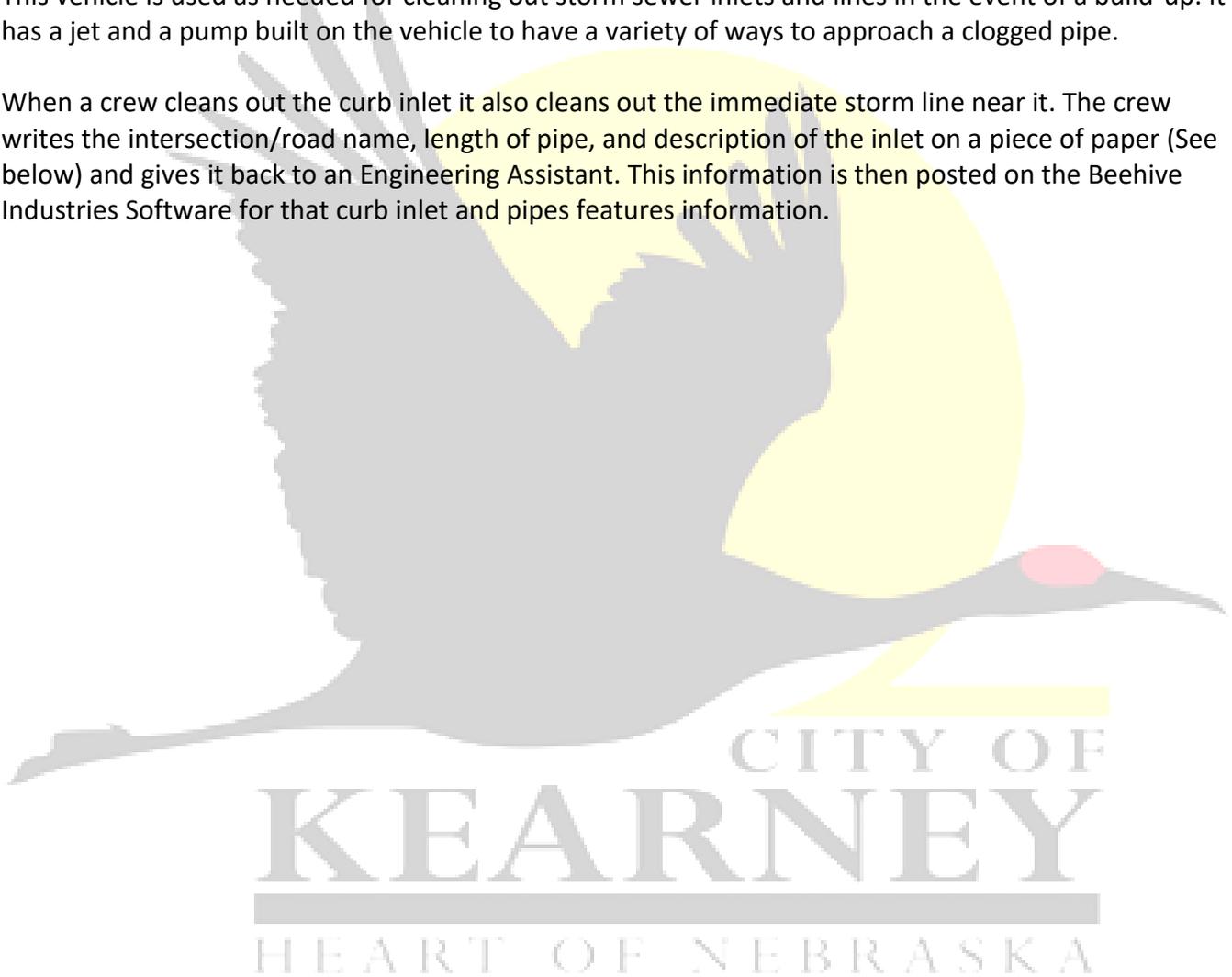
Once the hopper is filled, from storm sewer use, it is dumped in our City Truck Wash-Out Facility. The VacCon truck has a hydraulically operated front mounted hose reel; polyethylene water tanks with a 10 year warranty of not-leaking, high capacity water pumps that have a variety of flows and pressures; an auxiliary engine for independent water system operation; and weather tight tool boxes amongst other things. All this with a 1000 gallon debris tank enables us to comfortably address any plugged line.

3.d.ii. Catch Basin Cleanout Protocols

The City of Kearney's Street Division, within the Public Works Department, has one 'VacCon' truck. Once the hopper is filled, from storm sewer use, it is dumped in our City Truck Wash-Out Facility. The VacCon truck has a hydraulically operated front mounted hose reel; polyethylene water tanks, high capacity water pumps that have a variety of flows and pressures; an auxiliary engine for independent water system operation; and weather tight tool boxes amongst other things. All this with a 1000 gallon debris tank enables us to comfortably address any plugged line for more than 300 linear feet upstream or downstream.

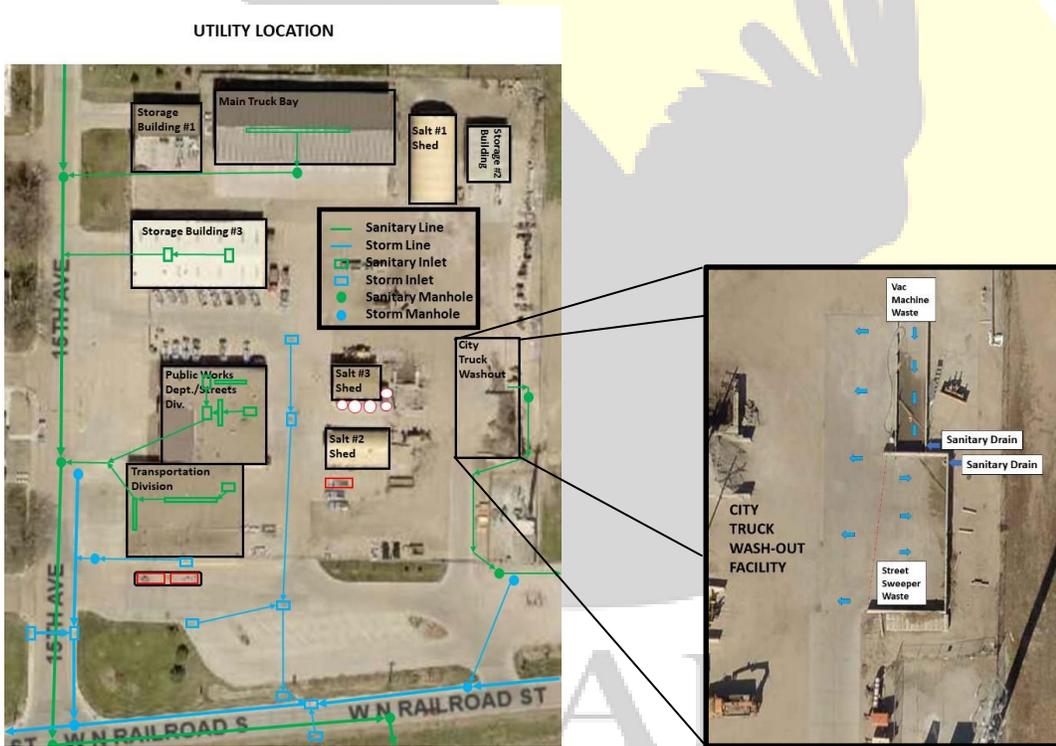
This vehicle is used as needed for cleaning out storm sewer inlets and lines in the event of a build-up. It has a jet and a pump built on the vehicle to have a variety of ways to approach a clogged pipe.

When a crew cleans out the curb inlet it also cleans out the immediate storm line near it. The crew writes the intersection/road name, length of pipe, and description of the inlet on a piece of paper (See below) and gives it back to an Engineering Assistant. This information is then posted on the Beehive Industries Software for that curb inlet and pipes features information.



3.d.iii. Disposal Protocols

The City of Kearney Street Division of the Public Works Department is responsible for cleaning out the catchment/curb inlets of the municipality. The disposal protocol for inlets is similar to that of the street sweepers. Upon completion of the work, the operator returns to the Public Works yard where there is a 'City Truck Washout Facility.' At this facility the waste liquid is dumped in the northern part and the solid waste is dumped in the southern part. While it sits, the wet material drains to a sanitary sewer area inlet with different levels of protection as to get out as many pollutants as possible. Once a week this collected material is hauled off to the Kearney Landfill where it is put in a designated cell. The front-end loader operators at the Kearney Landfill routinely turn this collected material for 6-12 months before moving it to the lined "Public Unloading" cell with the purpose of allowing it to help with the decomposition of everyday garbage.



OPERATIONS WATER QUALITY GUIDE



3.e. Parking Lot Sweeping

- i. Municipal Parking Lot Inventory
- ii. Sweeping Protocols
- iii. Disposal Protocols



3.e.i. Parking Lot Inventory

An aerial image of the City of Kearney's Parking Lot Inventory can be found in "**Appendix F.**"

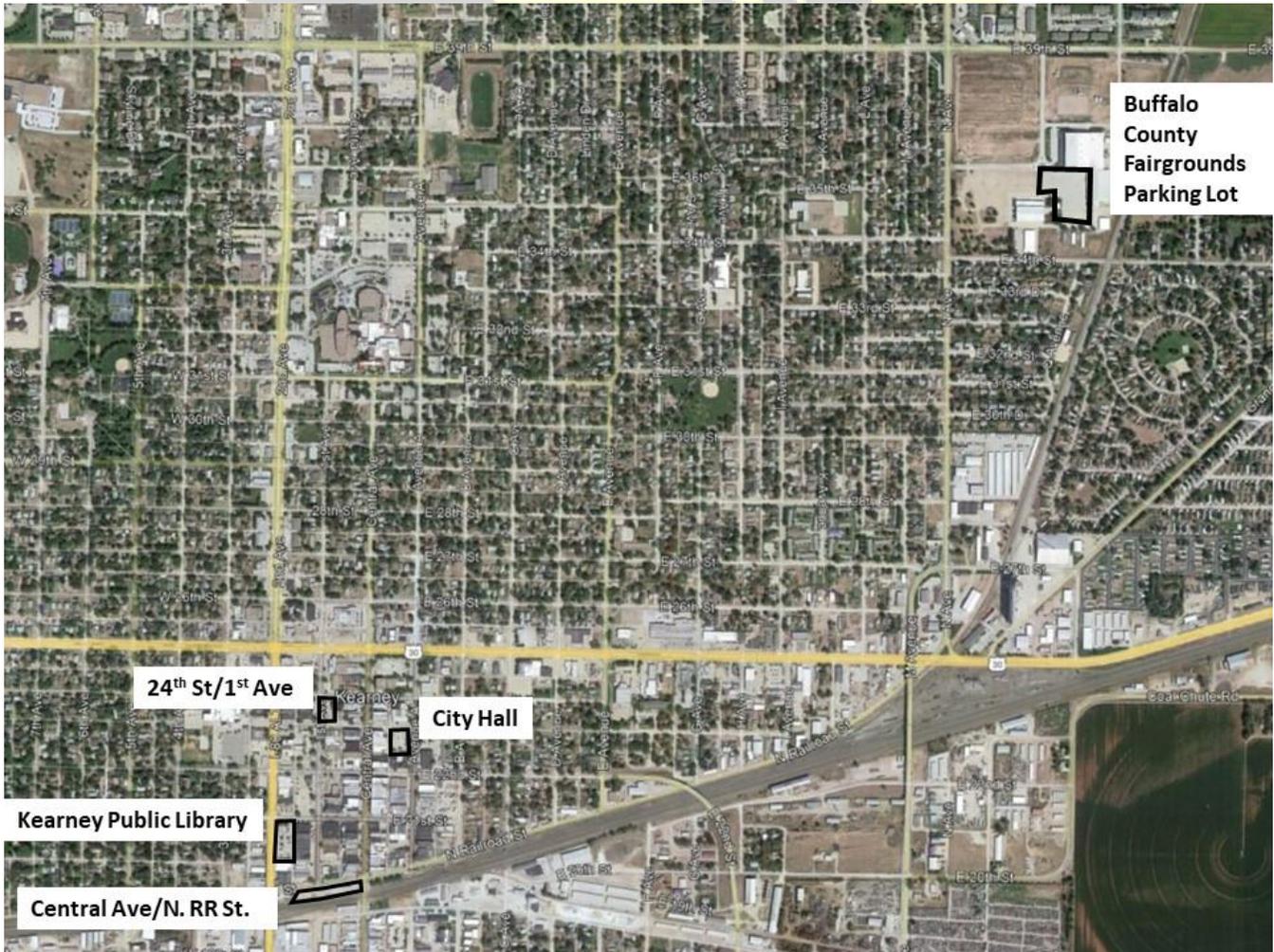


3.e.ii. Parking Lot Sweeping Protocols

The City of Kearney has a limited amount of municipal or private parking lots that they maintain. These parking lots are located mostly downtown in the Central Business District.

- Central Ave/North Railroad St (SW Corner)
- City Hall Parking Lot
- 24th St./1st Ave Parking Lot
- Kearney Public Library
- Buffalo County Fairgrounds Parking Lot

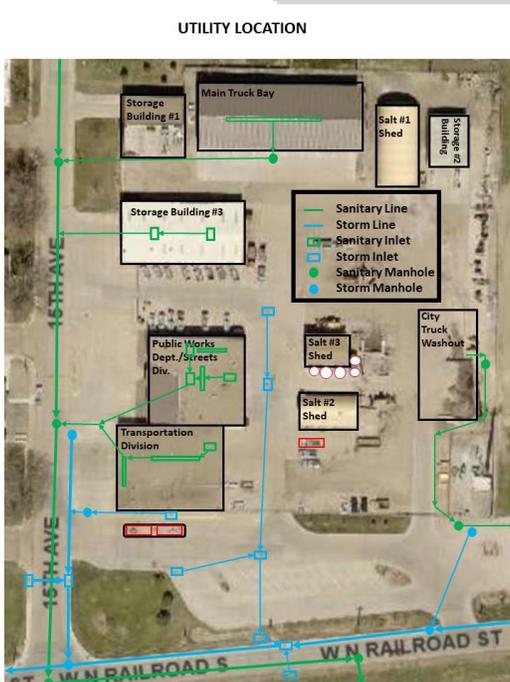
The frequency of sweeping is dependent on the activity level.



3.e.iii. Parking Lot Disposal Protocols

The City of Kearney has a limited amount of municipal or private parking lots that they maintain. These parking lots are located mostly downtown in the Central Business District.

When the hopper on the machine is full, which can be as often as five (5) times daily, the operator returns to the Public Works yard where there is a 'City Truck Washout Facility.' At this facility the waste material is dumped and the debris (wet and dry) sits in a designated location. While it sits, the wet material drains to a sanitary sewer area inlet with different levels of protection as to get out as many sediment particles as possible. Once a week this collected material is hauled off to the Kearney Landfill where it is put in a designated cell. The front-end loader operators at the Kearney Landfill will routinely turn this collected material for 6-12 months before moving it to the lined public unloading cell with the purpose of allowing it to help with the decomposition of everyday garbage.



OPERATIONS WATER QUALITY GUIDE



3.f. Essential Staff Roles and Policy

Summary

The City of Kearney's Street Sweeping Program has established responsibility for overseeing the implementation of Best Management Practices:

- 1.) Oversight of the implementation of BMPs during the performance of street maintenance activities is the responsibility of the Director of Public works.
- 2.) Crew supervisors have direct responsibility of ensuring that their workers implement appropriate BMPs on the job.

Kearney's Street Sweeping Program implements a number of measures to improve sweeping efficiency:

- 1.) One or more of the following measures will be used, where needed, to encourage voluntary relocation of vehicles parked in streets: only if major issues with the ability to clean street efficiently arise.
 - a. Develop and distribute newsletters and other public education materials notifying residents and businesses of street sweeping schedules;
 - b. Post temporary "no stopping, no parking" signs (for example in business districts, near large apartment complexes, etc.); and/or Post permanent street sweeping signs.
- 2.) The City must place emphasis on street sweeping in the period from early fall into the winter months until leaf fall has been completed. This practice is thought to maximize the removal of leaves debris, and other pollutants, which would otherwise be washed into the storm drain system. Additional sweeping will be called upon to assist in the fall cleanup.
- 3.) In areas where large accumulations of leaves or yard waste occur, use one or more of the following methods as necessary to improve sweeping efficiency:
 - a. Utilize a front end loader with a dump truck just prior to cleaning;
 - b. Operate street cleaning equipment in tandem;
 - c. Coordinate leaf/yard waste pickup program with street sweeping program so that pickup immediately precedes sweeping.
 - d. Inform citizen's that fallen leaves must be cleaned up and contained.
 - e. Raking leaves into the street is prohibited.
- 4.) Do not sweep roads without curbs and gutters. These streets will be done on an as needed basis, pending accumulation amounts and proximity to storm drainage system.
- 5.) The City encourages residents to collect and compost leaves and yard waste. Weekly curbside pickup of yard waste is provided by the City Utilities Department. All collected yard waste is hauled to the City's Landfill Compost area.
- 6.) Street sweeper operators must report trees and other obstacles which may interfere with street cleaning to the Street Sweeping Supervisor. The Public Works Operations Department employs adequate equipment and personnel to successfully cope with such obstacles in public right-of-way.

OPERATIONS WATER QUALITY GUIDE

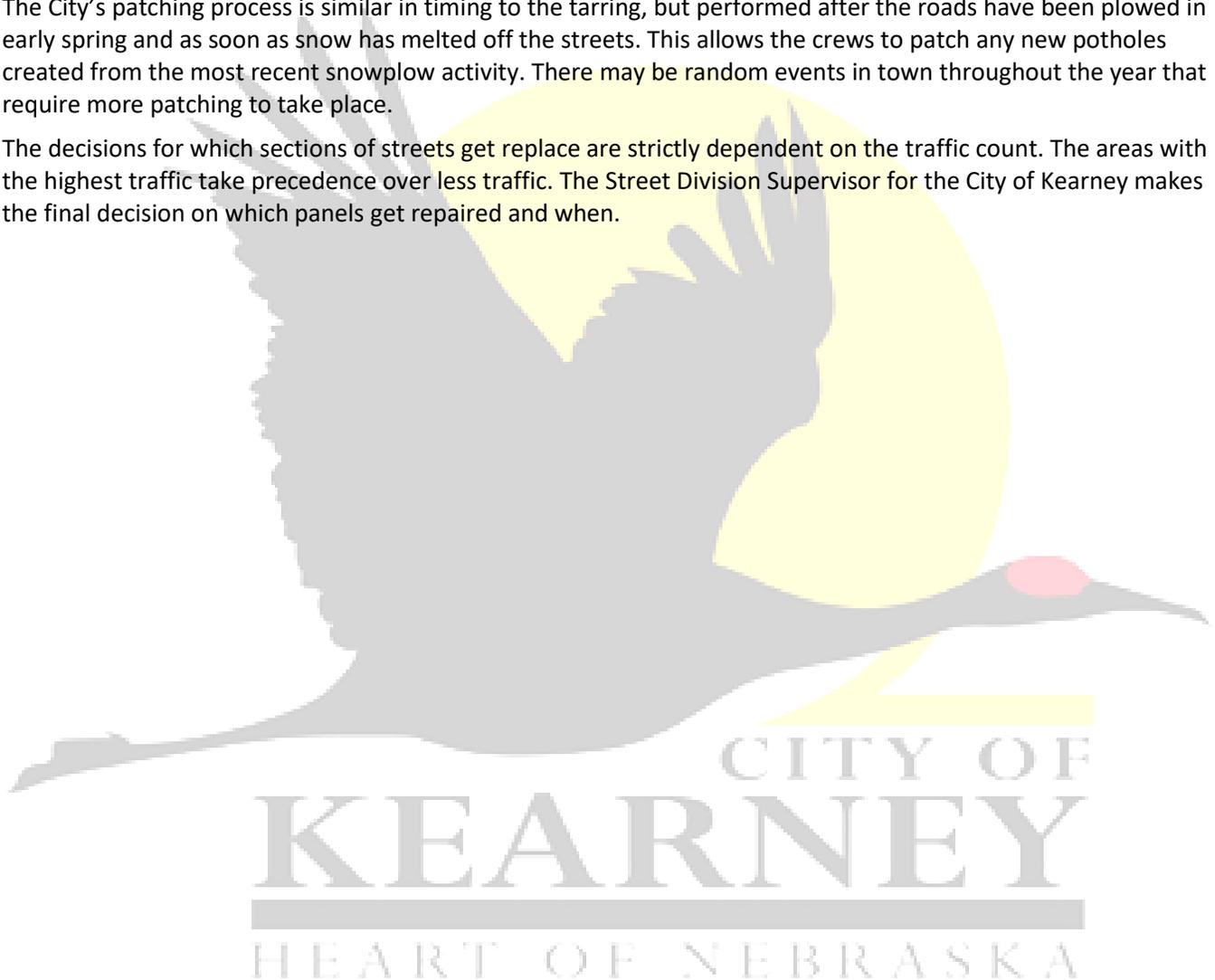
7.) The City will sweep streets without curbs and gutters in residential areas, based on amounts of accumulation and proximity to the storm drainage system, except in Open Space areas.

Kearney's Street Division is responsible for the maintenance of the municipality's roadways and parking lots. These duties consist of tarring, patching, and replacing bad concrete panels in streets.

The City's tarring process is overseen by Brad Janssen. The tarring process takes place in the early spring or fall, when the temperatures aren't so hot that tarred roads would need to be closed in order for the tar to settle properly. The records of each year's tarring activities are kept by Engineering Assistant Brandon Shafto, at the Public Works Department.

The City's patching process is similar in timing to the tarring, but performed after the roads have been plowed in early spring and as soon as snow has melted off the streets. This allows the crews to patch any new potholes created from the most recent snowplow activity. There may be random events in town throughout the year that require more patching to take place.

The decisions for which sections of streets get replaced are strictly dependent on the traffic count. The areas with the highest traffic take precedence over less traffic. The Street Division Supervisor for the City of Kearney makes the final decision on which panels get repaired and when.



3.g. Records and Reports Summary

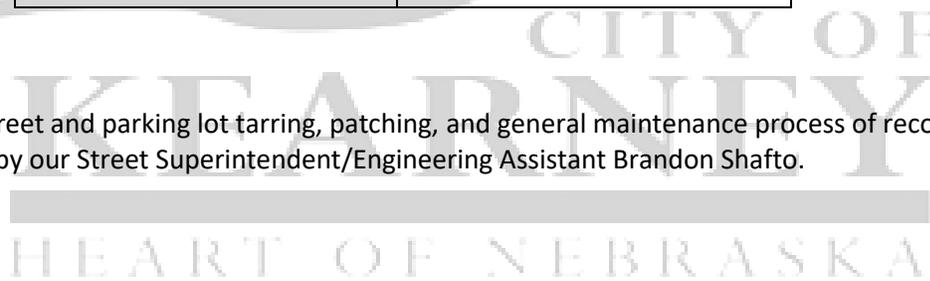
Sweeping Tracking and Reporting

1. The City’s street sweeping program is conducted by the Street Maintenance Division of the Public Works Department. Tracking records are provided by the ASIST database program.
2. Statistics on street sweeping activities are kept in a database provided in the ASIST program and recorded during the operation of the equipment, and summary reports must be completed by operators on a daily basis on cubic yards of debris. The number of curb miles swept, number of cubic yards of debris picked up, time sweep, and travel routes will be recorded.

This information is presented in the NPDES Annual Report each April. The City of Kearney has been keeping official records of the total debris accumulated each year since 2008:

<u>YEAR</u>	<u>DEBRIS (Cubic Yards)</u>
2023	3748
2022	2727
2021	5465
2020	4280
2019	3151
2018	3503
2017	6443
2016	3752
2015	2923
2014	2969
2013	2025

As it pertains to the street and parking lot tarring, patching, and general maintenance process of record keeping, those are maintained by our Street Superintendent/Engineering Assistant Brandon Shafto.



4. Municipal Storm Drain System

The City of Kearney operates and maintains a Municipal Separate Storm Sewer System (MS4). All outfalls within the municipal limits of the City of Kearney are accounted for by our GIS Division in the Utilities Department. Within the parameters of the NPDES Permit, the City of Kearney maintains an MS4-Phase II permit requiring the municipality to perform an annual Outfall Reconnaissance Inventory (ORI). During this ORI all outfalls over 36" in diameter that lead to the states waters are inspected and evaluated. The two main watersheds that collect stormwater from Kearney are the Wood River watershed (north) and the North Channel of the Platte River (south).

How did we develop the Storm Drain Map?

The engineer (Miller & Associates Consulting Engineers, P.C.) hired by the City of Kearney utilized the existing GIS coordinate system, Nebraska State Plane (NAD83) and vertical datum of NAVD88. The specific stormwater system features were captured by surveying with GPS technology and equipment. The accuracy level of captured features is within .05 feet horizontal and vertically. The collection crew was familiar with storm sewer systems and aware of any cross connection possibilities of concern.

Some data was stored in non-digital format. Some past projects have added to the current created outfall database and storm sewer atlases. We have modified all of the different datasets that have been created into GIS format.

Describe the sources of information used for the map.

The City of Kearney IDDE Program consolidated all the information that has been gathered by the City of Kearney staff and other entities. This includes outfall points, inlets, and storm sewer pipes. Besides using an existing preliminary database, as-builts created by construction inspectors during the time of construction of municipal projects had the necessary information input into the GIS software. The specific type of GIS software used was 'ESRI GIS Single Seat Software.'

How to verify outfall locations w/ field surveys.

The following data would be collected at the time of GPS field survey:

- Inlets and JMH's
 - Rim elevation (from GPS)
 - Flow line elevation of structure
 - Outflow direction and size
 - Number of Inflows
 - Type of structure material

- Outfalls
 - Flow line elevation
 - Dumps to (river, ditch, lake, detention cell)?
 - Type of outfall (FES, pipe only, letdown structure, ditch)

OPERATIONS WATER QUALITY GUIDE

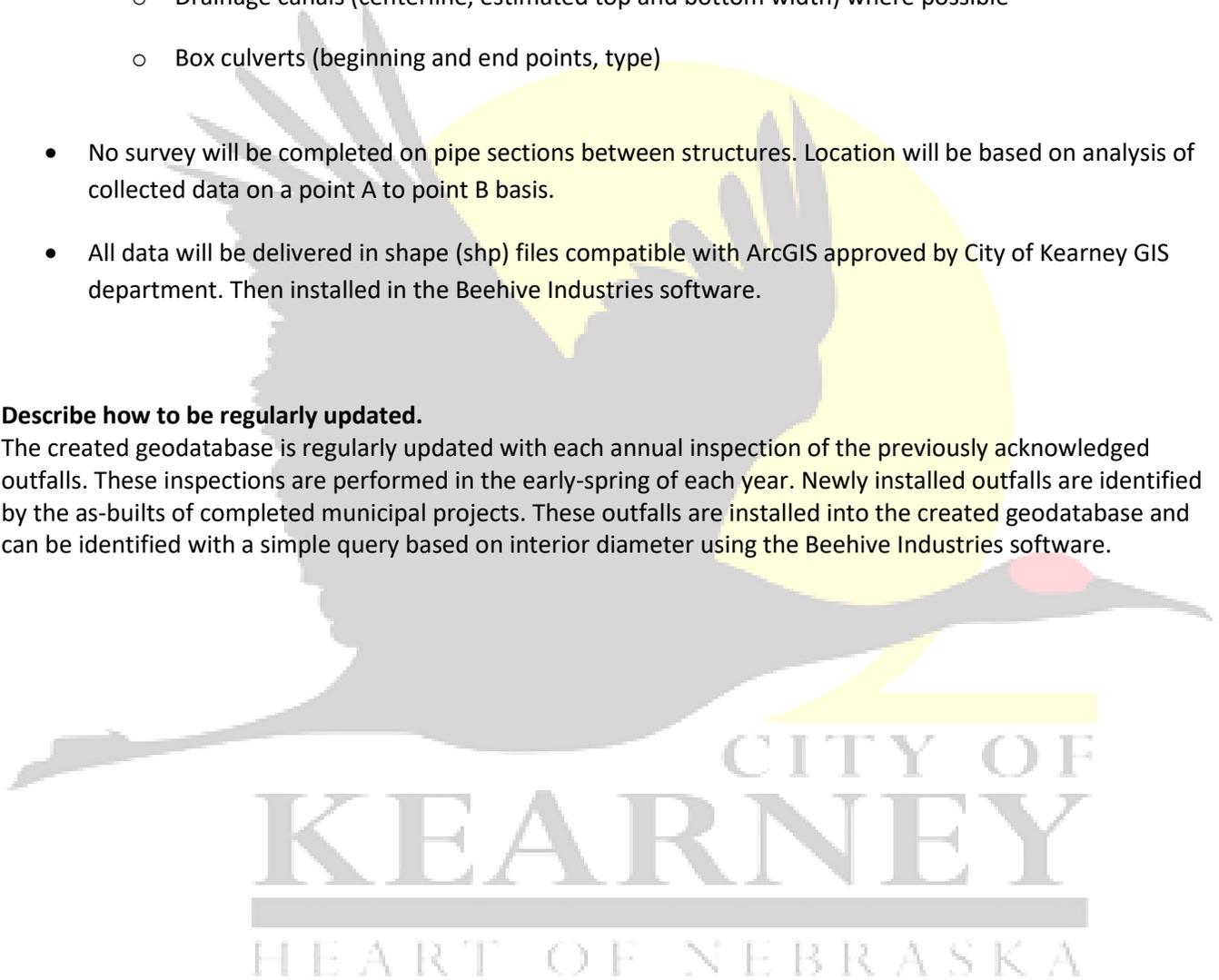
- Discharge Status (at time of survey)
 - Discharge Present (Yes/No)
 - Odor Present (Yes/No)
 - Illegal Cross-Connection Suspected (Yes/No)

*suspected cross connections must be reported to the Stormwater Program Manager

- Other conveyance structures
 - Drainage canals (centerline, estimated top and bottom width) where possible
 - Box culverts (beginning and end points, type)
- No survey will be completed on pipe sections between structures. Location will be based on analysis of collected data on a point A to point B basis.
- All data will be delivered in shape (shp) files compatible with ArcGIS approved by City of Kearney GIS department. Then installed in the Beehive Industries software.

Describe how to be regularly updated.

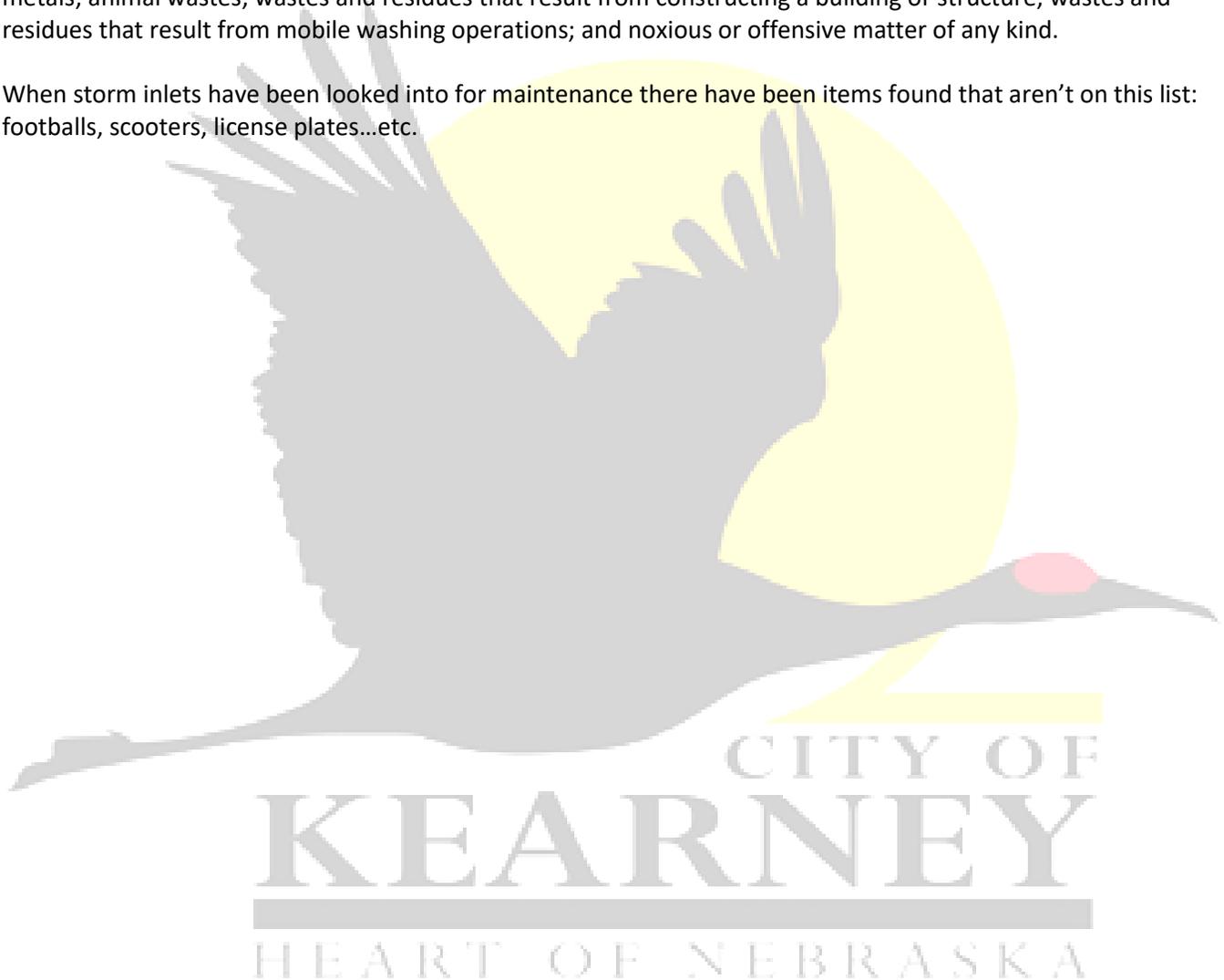
The created geodatabase is regularly updated with each annual inspection of the previously acknowledged outfalls. These inspections are performed in the early-spring of each year. Newly installed outfalls are identified by the as-builts of completed municipal projects. These outfalls are installed into the created geodatabase and can be identified with a simple query based on interior diameter using the Beehive Industries software.



4.a. Target Pollutants of Concern

The City of Kearney has a broad range of pollutants that it targets with its municipal storm drain system. Kearney considers anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coli form and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; wastes and residues that result from mobile washing operations; and noxious or offensive matter of any kind.

When storm inlets have been looked into for maintenance there have been items found that aren't on this list: footballs, scooters, license plates...etc.



4.b. Detention and Retention Basin Inventory

The City of Kearney has begun to keep track of Detention and Retention Basins in list and location format. As of right now there is a required basin in the design and development phases, they must be able to handle a 10 (ten) year rain event. This list consists of two categories, private and public. The purpose of this list is to create a bank of 'Total Water Quality Volume (WQVC) availability and used WQVC. This allows redevelopment projects, that don't have the available space for water quality treatment, an index of off-site locations available for retrofitting. As the public basins get used up, the private ones will be addressed. It should be expected that when the public basins are retrofitted there won't be an exact match of 'required volume' compared to 'constructed volume.' If it's not an exact match there will have to be more 'constructed volume.' This would allow future redevelopment projects to benefit from the overages from previous projects.

PUBLIC Basins
Fountain Hills Park – 48 th St/11 th Avenue
40 Acre Detention Cell – 65 th St/N Avenue
Cemetery – 45 th St/N Avenue
Grand View Estates – West of E. 47 th St Place
Buffalo County Fairgrounds – NE Corner
Buffalo County Fairgrounds – SE Corner
Kearney Area Recycling Center – South Side
Patriot Park – SW Corner
Patriot Park – NE Corner
Utilities Department – E. 26 th St/N Avenue
NRD Ditch – 20 th St/Q Avenue
Area between 11 th St and 4 th St/2 nd Avenue and 3 rd Avenue
Yanney Park – NE Corner
Railroad Street and La Crosse Drive (West of 30 th Ave Overpass)
Meadowlark Hills Golf Course – West
Meadowlark Hills Golf Course – East
Public Works Dept – Railroad St/15 th Avenue
Sportsplex – 215 15 th Avenue

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Private Detention Cells

New ID	Description	New ID	Description
1	5912 2nd Ave (NE Corner - Cottonwood Vet Clinic)	51	Stoneridge Apartments Fountain
2	Town and Country Bank	52	Meadowlark Elementary (SE Corner of Ave K/56th)
3	CSS Farms	53	Stoneridge Sub. (E of 5805 Ave K)
4	5816 2nd Ave W (Slumberland East property edge)	54	Stoneridge Lake
5	CMH on 2nd Ave West	55	Remington Heights (SE Ave L Place- W of Ave N)
6	5708 2nd Ave (East Edge of Graham Tire)	56	Eastbrooke Homeowners (Parallel Ave Q)
7	Spruce Hollow Estates 5th	57	Bosselman Pump and Pantry (1212 E 56th)
8	Sterling Apartments (SE corner 56th St/11th Ave)	58	Custer Federal Bank (1305 E 56th)
9	Grandwest LLC- (SW Corner 56th/11th)	59	Pediatric Dentistry (1407 E 56th)
10	Prince of Peace	60	Longo Orthodontics (5409 Ave N)
11	Ridge View Estates (5308 17th Ave)	61	Compute North (Global Drive Place - Data Tech Park)
12	Brookdale (54th St/17th Ave)	62	Black Hills Energy (Airport Road)*
13	Northridge Apartments (SW corner 56th St/17th Ave)	63	Millenial Estates (Along 39th St)
14	Castle Ridge 5th Addition (51st St Place/19th Ave)	64	Millenial Estates (NE Corner 34th/Ave W)
15	Prairieview/Richard Young (W of 17th Ave)	65	Grand View Estates (SW corner R Ave/E 41st St PL)
16	Fountain Hills 5th Addition (S of 50th St./ E of 16th Ave Place)	66	Grand View Estates (NW corner R Ave/E 41st St PL)
17	5 Points Bank (1809 W 39th St)	67	Grand View Estates (South of 42nd St behind Crossroads)
18	2411 39th St. (Lighthouse Point Entrance)	68	Dollar General (2915 Ave N)
19	SE Corner 39th and Country Club Lane	69	Levandars Auto (2807 Ave N)
20	New Life Assembly (2715 W 39th St- SE Corner)	70	Funtastics Parking Lot (2803 Ave N)
21	Meadowlark Ridge Estates (2706 36th St PL)	71	KCHS
22	Larsen and Morris Subdivision (North of Canal, west of CCL)	72	Trius FCU
23	Buckle (West of Country Club Lane)	73	Benchmark Phase I West Edge
24	Wagonner Plumbing (2621 E Hwy 30)	74	Benchmark Phase II East Edge
25	Buckle (NE Corner CC Lane/Hwy 30)	75	Younes Lake- North of Interstate
26	Buckle (NW Corner University Dr./Hwy 30)	76	Younes Pond- between Talmadge and 3rd St- West limits
27	Country Club Golf Course West	77	South Edge of Cash-Wa (4th St)
28	Country Club Golf Course East	78	Fox Creek Phase II (South of 4th St/9th Ave Intersection)
29	1st Baptist Church (North of Apollo- adjacent to 35th St)	79	Willis Storage (16th St/14th Ave)
30	Hillside Estates (42nd St/11th Ave)	80	1110 17th Ave (Bruning Bank)
31	Raisin' Canes (3720 2nd Ave)	81	KRMC- West of Yanney
32	Starbucks North	82	Brookstone Gardens -SE
33	Platte Valley Auto (44th St./4th Ave)	83	Brookstone Gardens (2615 11th St)-NW
34	NW Corner of 2nd Ave/44th St (Scooters)	84	KHS (SE cell)
35	Builders Warehouse (E Edge)	85	KHS (SW pond)
36	Johnson Imperial (W of Petsmart)	86	Central Community College- South
37	Target (E Edge)	87	Central Community College- North
38	Hyvee (S Edge along 52nd St)	88	Buckle on 16th St
39	Big O Tires	89	2915 W. 16th St. (N Edge of Buckle)
40	Burger King on 56th St	90	61 Plaza Boulevard (W Edge)
41	Arby's on 56th St	91	ESU #10 - (South Side of parcel)
42	Walmart (NE Corner)	92	Kearney Plaza 6th Sub (West of Plaza Blvd, South of Hwy 30)
43	State Bank of Riverdale (212 E 56th St)	93	UNK University Village (SE Corner)
44	McDonalds on 56th / 1st Ave	94	412 E 6th St (near Kidwell)
45	5609 1st Ave (East edge of property) Ingalls Crossing	95	10th St/Ave H
46	Taco Johns (NW corner 1st Ave/56th St)	96	RYDE (715 E. 11th St)
47	1st Ave (South of Menards- Ingalls Crossing??)	97	911 11th St (SE Corner Brown's Transfer)
48	6411 1st Ave (NE Corner- Menards)	98	Task Lighting (1206 Ave M)
49	Skiview Estates South (W of Ave E and 52nd St Place)	99	1511 11th St (N Edge Kucera Painting)
50	Skiview Estates North (W side of Ave E- 52nd St. Place)	100	1202 E 17th (NE Corner 17th St/Ave M- Marlatt Subdivision)

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OPERATIONS WATER QUALITY GUIDE

New ID	Description	New ID	Description
101	2306 Ave K (N Edge of RR St.- Tri-County Glass)	151	Quiet Living Storage - 211 Landon St
102	Construction Rental (1303 E 27th St)	152	Taylor Villas - O Ave/14th St
103	Java Junction	153	Clinch Properties- 2000 O St
104	L P Commercial (2016 E Hwy 30)	154	Brandon Green Storage- 1112 E 20th St
105	Cherry Ave Industrial (Marshall Engines)	155	Kearney Catholic - 34th St/C Ave (SAME AS #71; amended)
106	Parker NW Corner Airport Rd/Hwy 30	156	Cutting Edge - 924 Central Ave
107	Farm Credit Services NW Corner 56th St/Antelope	157	Arram Equities - 714 4th Ave
108	Eastbrooke Gardens	158	Younes 3rd and 4th Regional
109	Barney Insurance	159	Younes 24 Plex_3rd St/11th Ave
110	1004 E. 56th St (adjacent to 56th St.)	160	Younes Dual Brand Hotel
111	Camera Doctor	161	Younes Maintenance Facilities - 903 W 3rd St
112	Heritage Plaza	162	Brandt W RR Storage - 1200 W 20th St
113	Kearney Equipment - 6020 2nd Ave	163	West Co - 923 W RR St
114	Lanny Carlson Motors - Front	164	Schumacher Fence - 3107 W Hwy 30
115	Meadowlark Professional Center (NW Corner 37th St/29th Ave)	165	Old Town Enterprises - 1619 17th Ave
116	KAAPA- South of I-80	166	NP 30th Ave Storage - 1700 30th Ave
117	Apache Camper- Along South edge of 1st St	167	KRMC Cancer Center - 909 22nd Ave
118	Heartland Motors - In front	168	BSB Subdivision - W 43rd St Place
119	Big Apple Parking Lot	169	Panda Express - 4910 3rd Ave
120	Landon St- Jim Kalb North property edge French drain	170	Oak Park Center - 5412 2nd Ave
121	Frito Lay on 6th St	171	Hilltop Pet Clinic - 2907 W 37th St (SAME AS #115; amended)
122	1825 I Ave	172	Cottonwood Vet Clinic - 5912 2nd Ave (SAME AS #1; amended)
123	312 E North Railroad St- East Property Line French drain	173	800 W 78th Street Storage
124	Graczyk Landscaping		
125	Tetrad Properties - Yanney Ave		
126	Buzz's Marine - 508 E 6th St		
127	Avenue E Plaza - 507 E 26th St		
128	Grand View Estates Sunrise Middle School - 4611 N Avenue		
129	Arbor View First Addition - E 65th St Place		
130	Lanny Carlson Motors -NW Corner - 6110 2nd Ave W		
131	Ace Hardware - 307 W. 56th St		
132	Tommy Carwash - 3802 2nd Avenue		
133	Green Steel Storage - 2215 30th Avenue		
134	Younes Employee Housing - 311 W 3rd St		
135	Pizza Ranch - 123 3rd Avenue		
136	Midway CDJ Auto - 219 E 2nd Avenue		
137	Central States Safety and Trailing - 2002 Ave G		
138	Bayer XPO Storage - 2615 E 11th St		
139	Frontier Storage - 2114 Cherry Avenue		
140	Prairie View Roofing - 4209 Hitchcock Avenue		
141	Butler Ag - 4715 Chase Avenue		
142	Kasey Brandt Cold Storage - 4111 Cherry Avenue		
143	Ward Labs - 4007 Cherry Avenue		
144	TBK Transmissions - 2710 E 39th St		
145	Williams Estates - E. 34th St		
146	Adventure Bus - 6410 E Hwy 30		
147	JB Storage - 6610 43rd St		
148	CR Storage - 6611 E 45th St		
149	Mid State Irrigation - 6820 E 45th St		
150	Plane View - 6815 43rd St		



CITY OF
KEARNEY
 HEART OF NEBRASKA

4.b.i. Summary of Water Quality Practices Installed

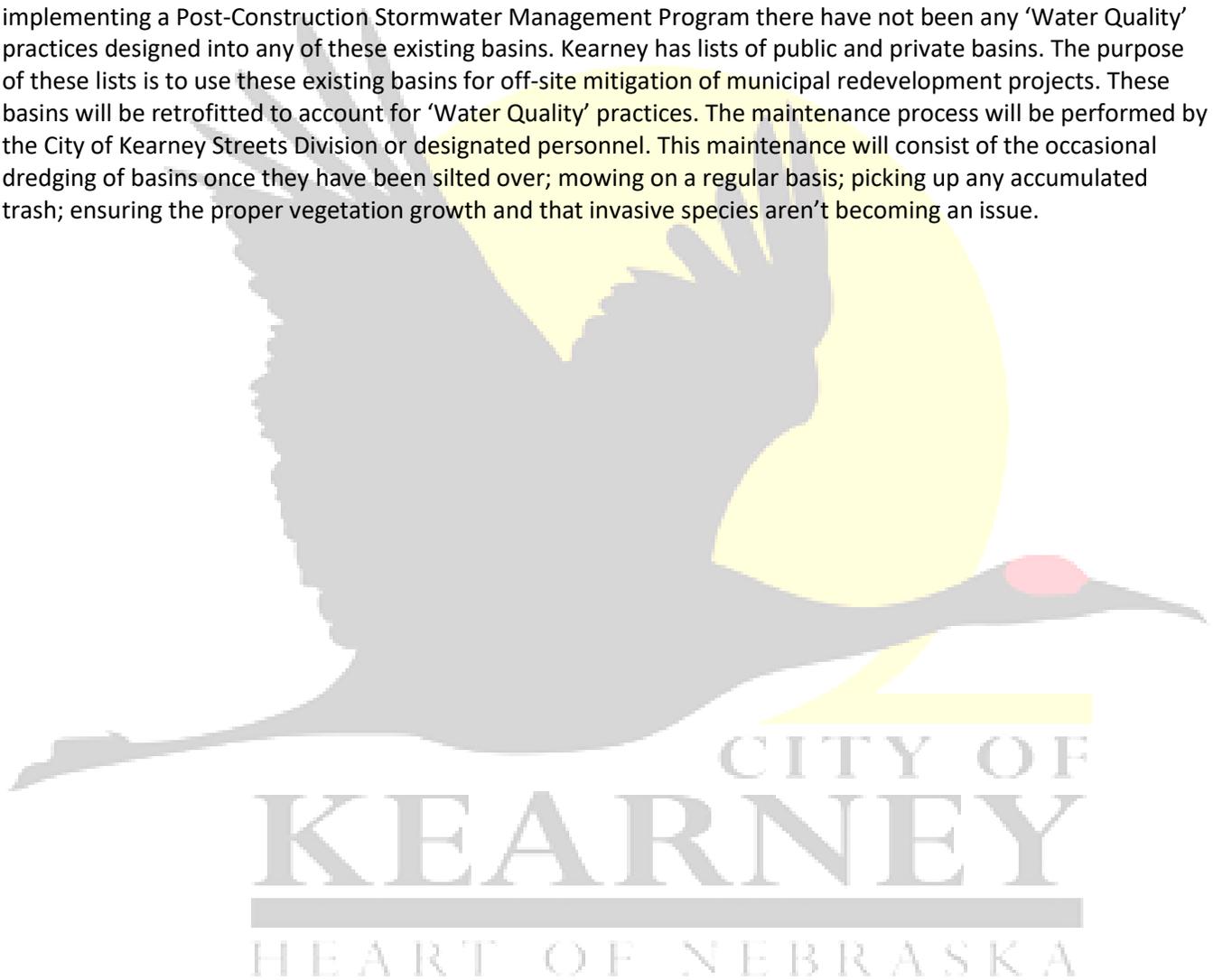
<u>STFs in Kearney</u>	<u>Address</u>
Construction Rental	2601 Ave N
Speedee Mart	108 2 nd Ave
Freddy's (Benchmark Phase II)	1010 3 rd Ave
Kearney Public Works Dept	1919 15 th Ave
KAAPA Ethanol	13 Central Ave
Barney Insurance	5508 Ave N
Farm Credit Services	4070 E. 56 th St
Black Hills Energy	4510 Airport Rd
Graczyk Landscaping	1170 30 th Ave
City of Kearney	NE Corner W. N. RR St AND La Cross Dr.
Butler Ag	4715 Chase Ave
*Bayer/XPO	2615 E. 11 th St
Bish Camper Sales/Service	115 E. 1 st St
*Meadows Subdivision	40.719771 N/-99.047613 S
*Younes 24 Plex	1013 W. 3 rd St

*under construction

4.b.ii. Detention Cells

Functionality/Prioritization/Inspection Frequency

The City of Kearney Street Division is responsible for maintaining current public basins. This maintenance process consists of mowing and the occasional trash removal. Since the City of Kearney is in the process of implementing a Post-Construction Stormwater Management Program there have not been any 'Water Quality' practices designed into any of these existing basins. Kearney has lists of public and private basins. The purpose of these lists is to use these existing basins for off-site mitigation of municipal redevelopment projects. These basins will be retrofitted to account for 'Water Quality' practices. The maintenance process will be performed by the City of Kearney Streets Division or designated personnel. This maintenance will consist of the occasional dredging of basins once they have been silted over; mowing on a regular basis; picking up any accumulated trash; ensuring the proper vegetation growth and that invasive species aren't becoming an issue.

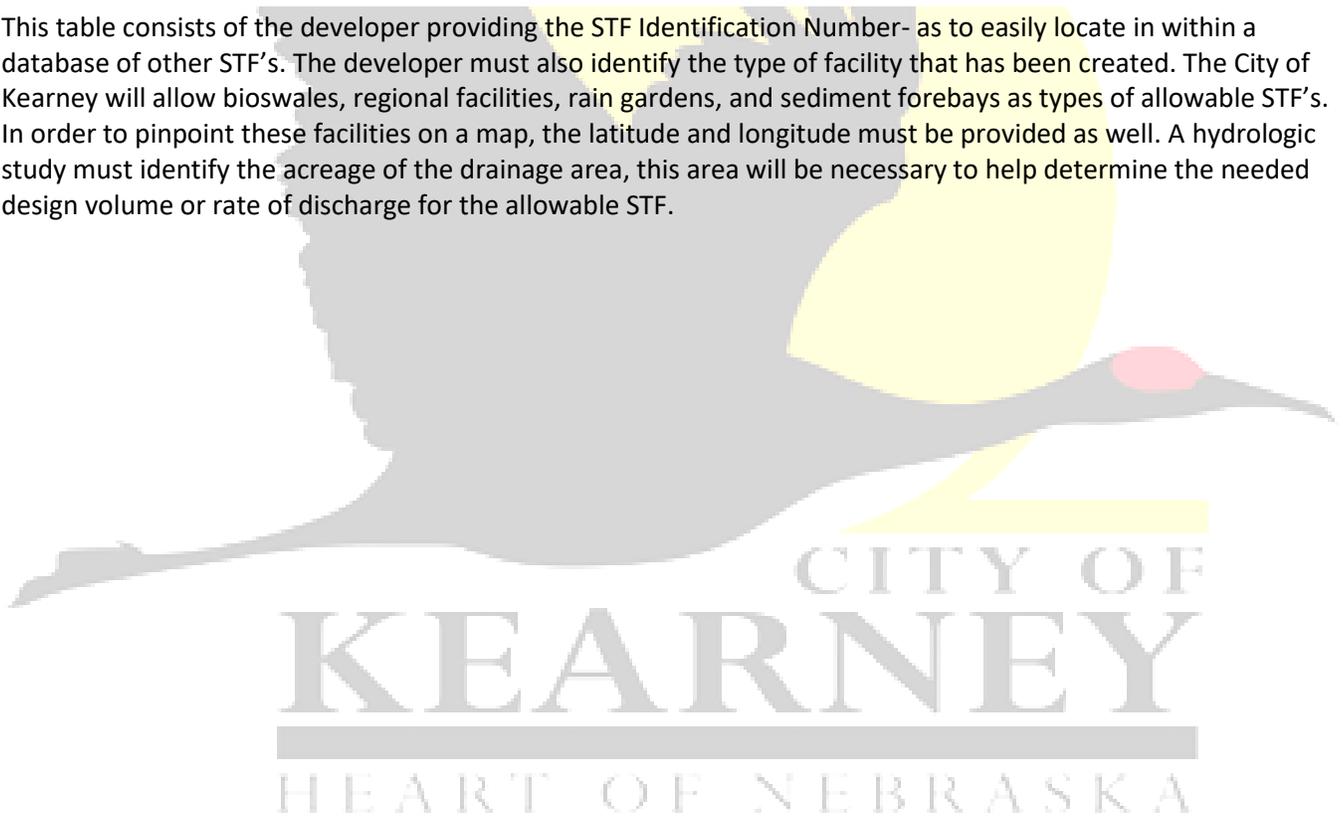


4.c. Post Construction Stormwater Stormwater Treatment Facility Inventory

The City of Kearney will follow a schedule of implementation for its Post Construction Stormwater Management Plan. There are post construction ordinances in place that will be clarified and enforced to ensure proper understanding of this plan. In this plan there are allowable Stormwater Treatment Facilities (STF's) available for installation on development and redevelopment projects. Upon completion, the STF's information will be provided to the City of Kearney Public Works Department where it will be kept in a database with all other completed STF's within the community.

STF Identification Number	STF Type	STF Location (Lat/Long)	Drainage Area (Acres)	Design WQCV (cf) or Q _{wq} (cfs)	WQCV (cf) or Q _{wq} (cfs) Provided

This table consists of the developer providing the STF Identification Number- as to easily locate in within a database of other STF's. The developer must also identify the type of facility that has been created. The City of Kearney will allow bioswales, regional facilities, rain gardens, and sediment forebays as types of allowable STF's. In order to pinpoint these facilities on a map, the latitude and longitude must be provided as well. A hydrologic study must identify the acreage of the drainage area, this area will be necessary to help determine the needed design volume or rate of discharge for the allowable STF.

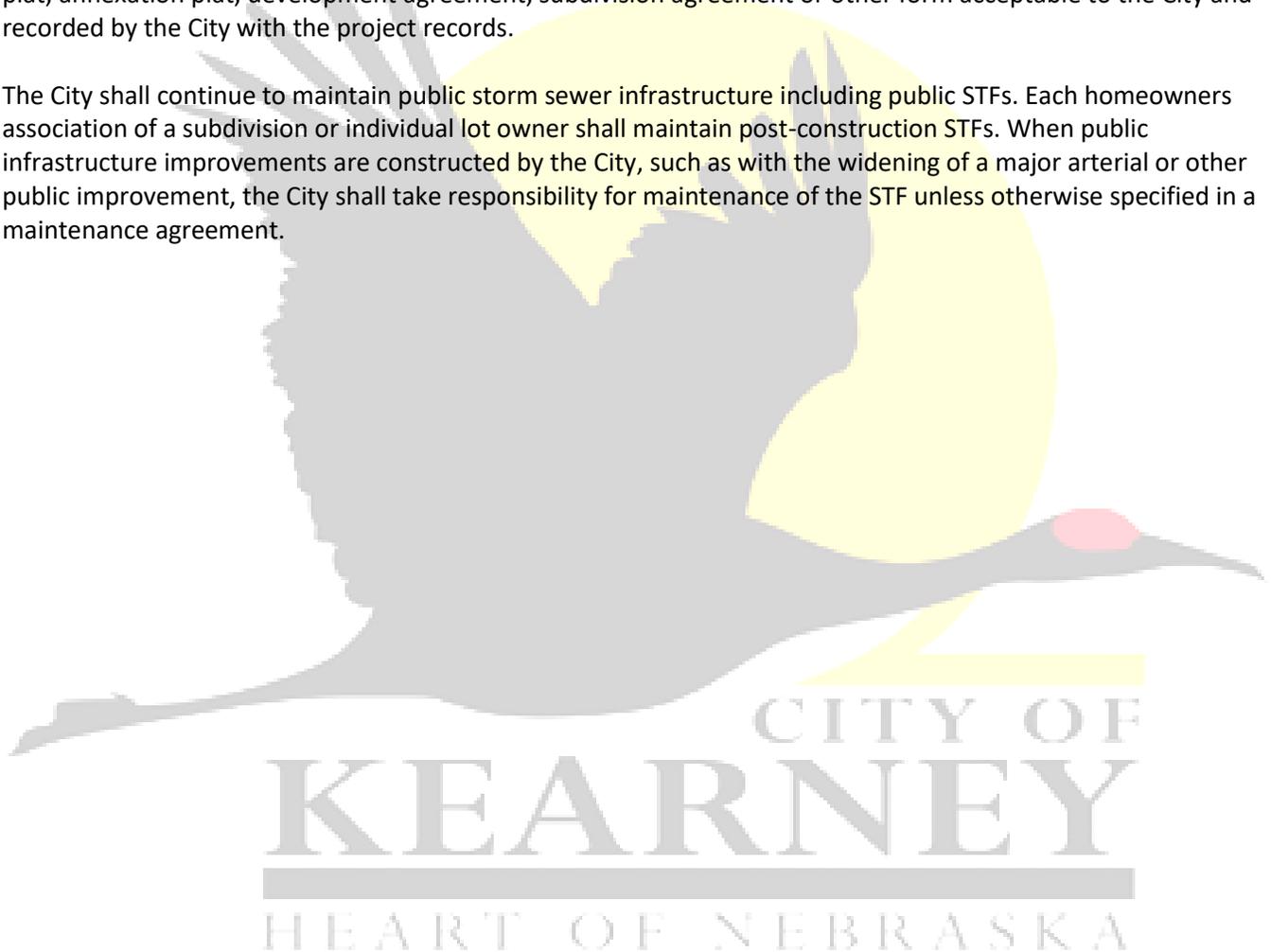


4.c.i. Maintenance Practices/Frequency

In the City of Kearney's Post Construction Stormwater Management Plan, there is a designated section labeled "Maintenance of Controls." This section outlines the responsibilities for the maintenance of Stormwater Treatment Facilities (STF's).

STFs located on private property shall be owned and operated by the owner(s) of the property on which the STF is located; unless the City agrees in writing, in the form of a maintenance agreement, that a person or entity other than the owner shall own or operate such STF. As a condition of approval of the STF, the owner shall also maintain the STF in perpetuity to its design capacity unless or until the City shall relieve the property owner of that responsibility in writing. The obligation to maintain the STF shall have been memorialized on a subdivision plat, annexation plat, development agreement, subdivision agreement or other form acceptable to the City and recorded by the City with the project records.

The City shall continue to maintain public storm sewer infrastructure including public STFs. Each homeowners association of a subdivision or individual lot owner shall maintain post-construction STFs. When public infrastructure improvements are constructed by the City, such as with the widening of a major arterial or other public improvement, the City shall take responsibility for maintenance of the STF unless otherwise specified in a maintenance agreement.



4.d. Storm Drain Inventory

Purpose and Scope of the project:

The purpose of this storm drain inventory will be to provide geospatial data collection of public City of Kearney Storm Water conveyance system features.

The engineer must utilize the existing GIS horizontal coordinate system, Nebraska State Plane (NAD83) and vertical datum of NAVD88. The storm water system features must be captured by surveying with GPS technology and equipment. The accuracy level of captured features should be within 0.05 feet horizontal and vertically, or limits approved by the City of Kearney. Collection crew must be familiar with storm sewer systems and aware of any cross connection possibilities of concern. This project will consist of a large amount of system observation and tracking of unknown system locations.

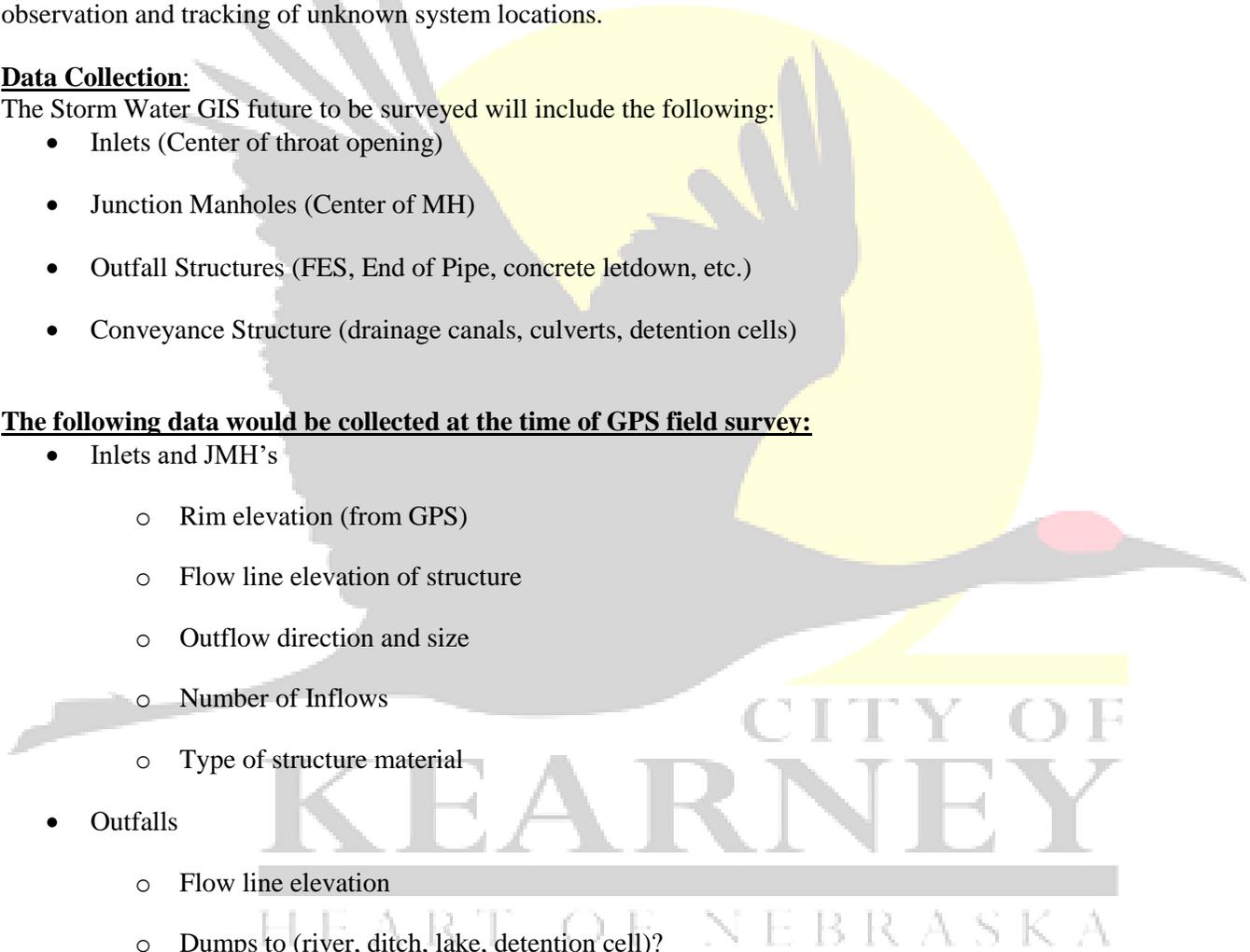
Data Collection:

The Storm Water GIS future to be surveyed will include the following:

- Inlets (Center of throat opening)
- Junction Manholes (Center of MH)
- Outfall Structures (FES, End of Pipe, concrete letdown, etc.)
- Conveyance Structure (drainage canals, culverts, detention cells)

The following data would be collected at the time of GPS field survey:

- Inlets and JMH's
 - Rim elevation (from GPS)
 - Flow line elevation of structure
 - Outflow direction and size
 - Number of Inflows
 - Type of structure material
- Outfalls
 - Flow line elevation
 - Dumps to (river, ditch, lake, detention cell)?
 - Type of outfall (FES, pipe only, letdown structure, ditch)
- Discharge Status (at time of survey)
 - Discharge Present (Yes/No)
 - Odor Present (Yes/No)

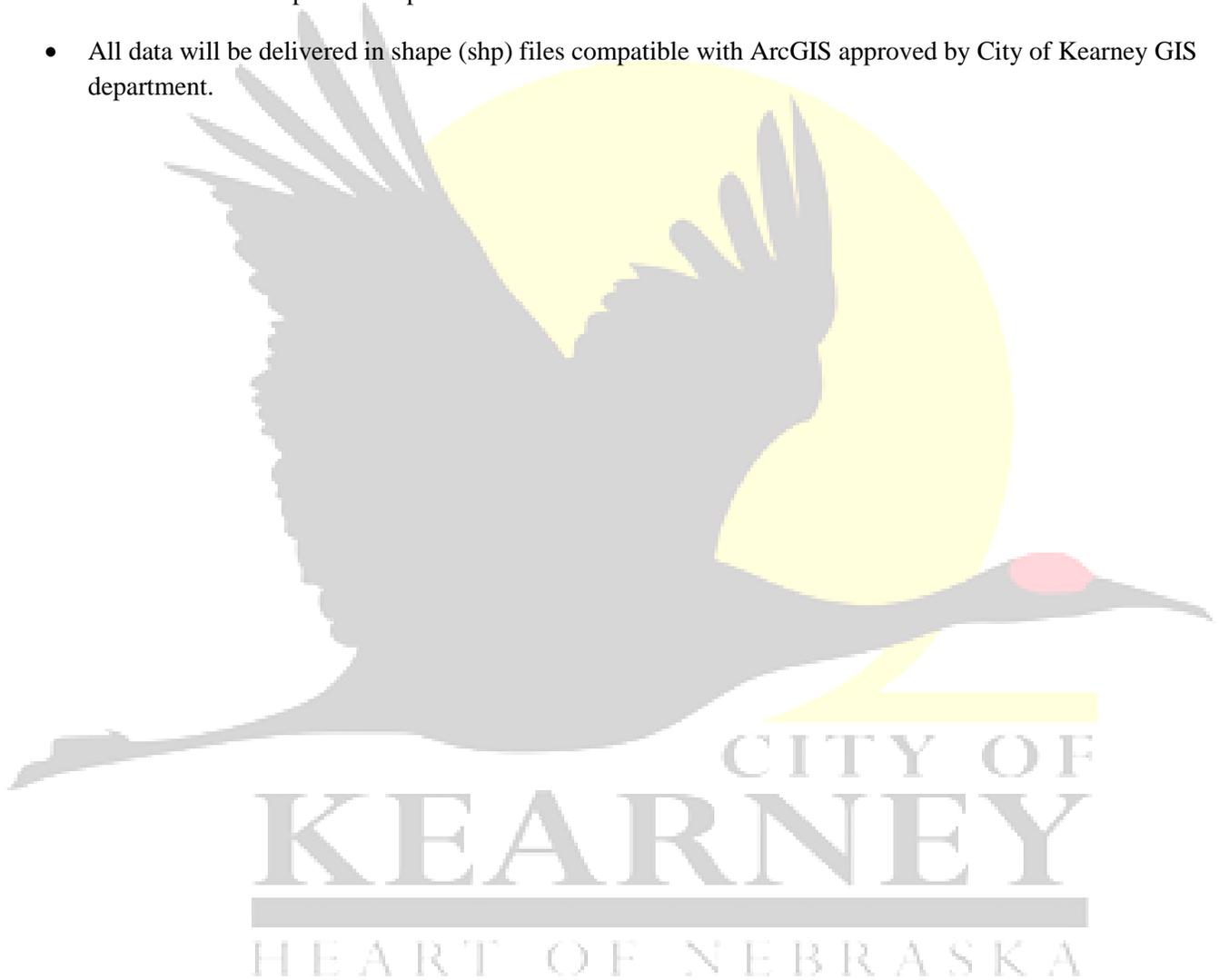


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- Illegal Cross-Connection Suspected (Yes/No)

*suspected cross connections must be reported to the Stormwater Program Manager

- Other conveyance structures
 - Drainage canals (centerline, estimated top and bottom width) where possible
 - Box culverts (beginning and end points, type)
- No survey will be completed on pipe sections between structures. Location will be based on analysis of collected data on a point A to point B basis.
- All data will be delivered in shape (shp) files compatible with ArcGIS approved by City of Kearney GIS department.



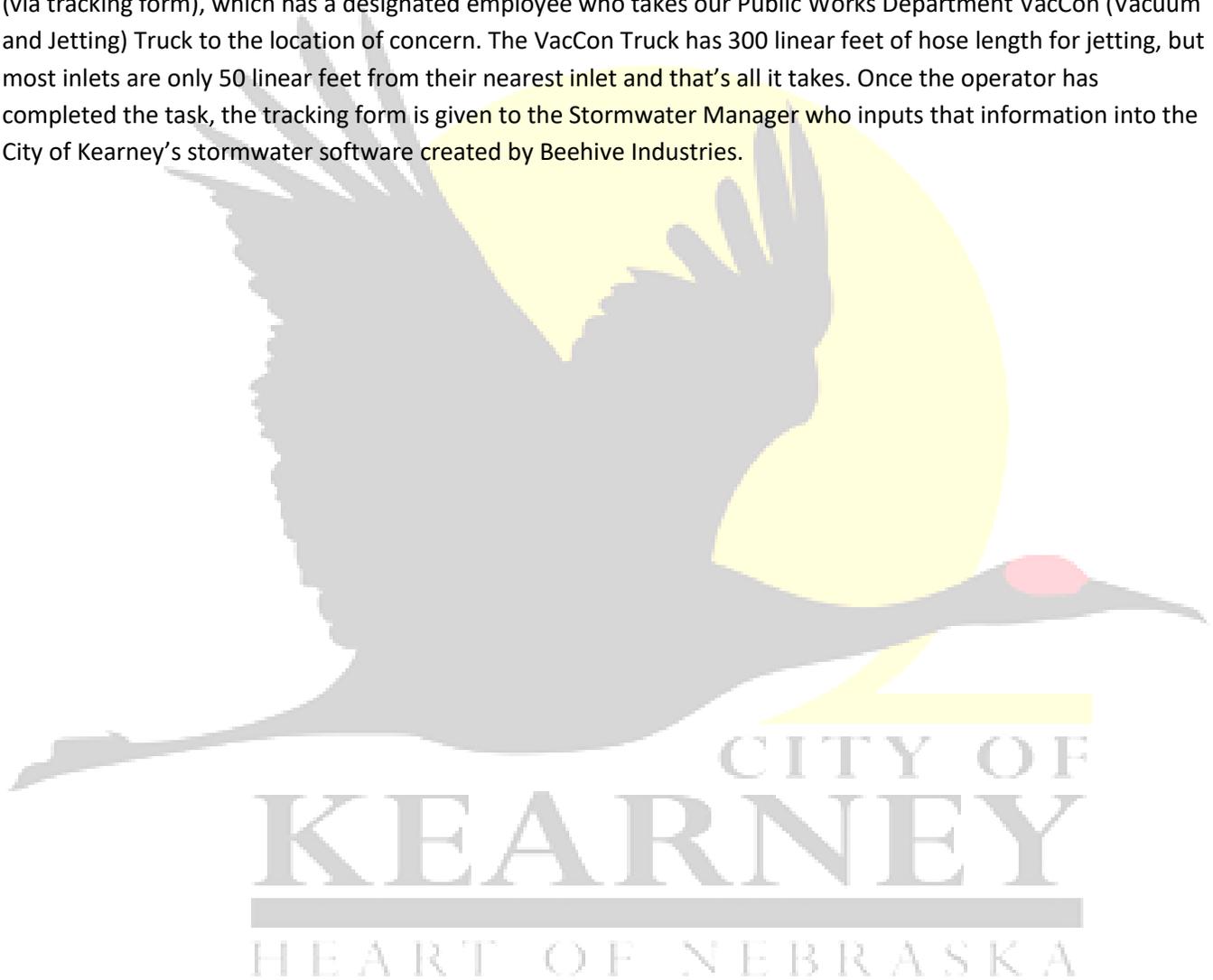
4.d.i. Storm Drain Inventory Map Explanation

There is an explanation of the City of Kearney's Storm Drain Inventory in 'Appendix G.'



4.d.ii. Municipal Storm Drain Cleanout Protocols

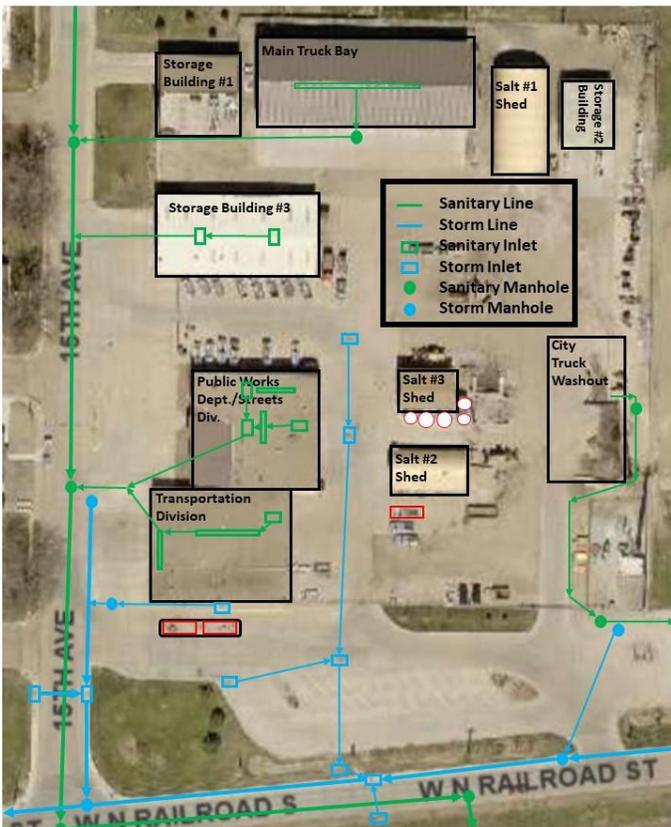
The City of Kearney implements a storm drain cleanout procedure that addresses cleanout practices when curb inlets are cleaned. If there are concerned citizens that use our City of Kearney Stormwater hotline or our City of Kearney 'Access Kearney' link on our website to register an observation that curb inlets are draining slowly or are clogged then the Stormwater Manager is notified. The Stormwater Manager then notifies the Street Division (via tracking form), which has a designated employee who takes our Public Works Department VacCon (Vacuum and Jetting) Truck to the location of concern. The VacCon Truck has 300 linear feet of hose length for jetting, but most inlets are only 50 linear feet from their nearest inlet and that's all it takes. Once the operator has completed the task, the tracking form is given to the Stormwater Manager who inputs that information into the City of Kearney's stormwater software created by Beehive Industries.



4.d.iii. Municipal Storm Drain Disposal Protocols

The City of Kearney Street Division of the Public Works Department is responsible for cleaning out the storm drains of the municipality. The disposal protocol for storm drains is similar to that of the curb inlets and street sweepers. Upon completion of the work, the operator returns to the Public Works yard where there is a 'City Truck Washout Facility.' At this facility the waste liquid is dumped in the northern part and the solid waste is dumped in the southern part. While it sits, the wet material drains to a sanitary sewer area inlet with different levels of protection as to get out as many pollutants as possible. Once a week this collected leachate material is hauled off to the Kearney Landfill where it is put in a designated cell. The front-end loader operators at the Kearney Landfill routinely turn this collected material for 6-12 months before moving it to the lined "Public Unloading" cell with the purpose of allowing it to help with the decomposition of everyday garbage.

UTILITY LOCATION



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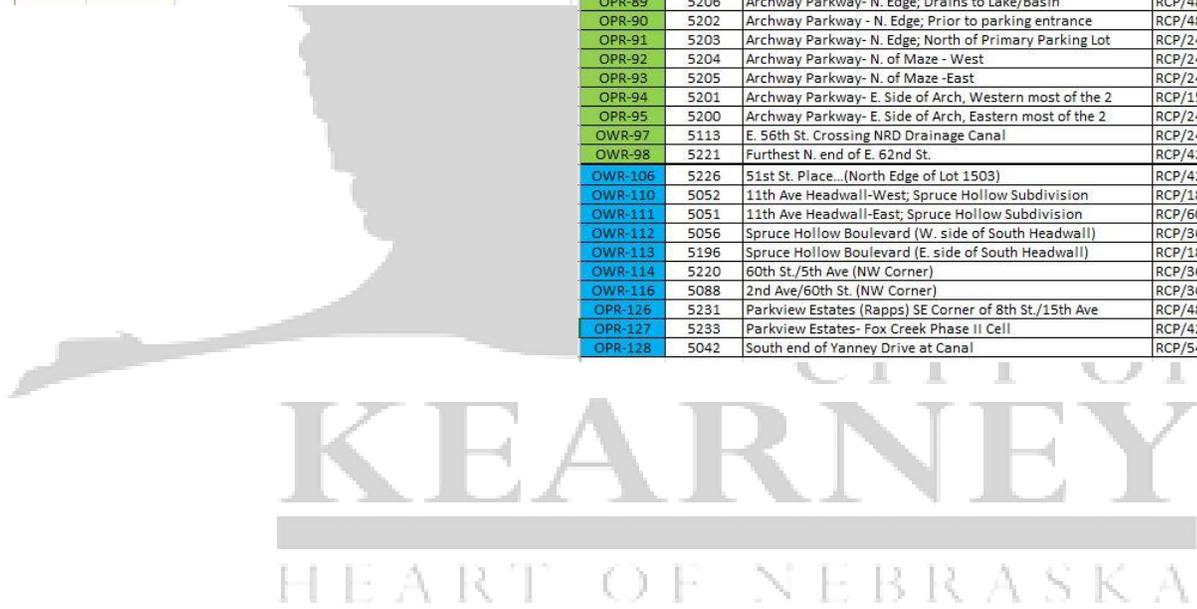


4.e. Stormwater Outfall Inventory

The City of Kearney performs an Outfall Reconnaissance Inventory (ORI) on all outfalls that are 36” interior diameter (ID) or greater within the municipalities city limits. A list has been provided below.

The ORI is performed every year in the early spring. As is described in the NDPES permit, it must be monitored in dry-weather to make the best assessment as to if an illicit discharge is occurring or not.

Major Outfalls			MINOR OUTFALLS				
Route	Beehive ID		Outfall ID #	Beehive #	Description	Type/Size	Receiving Waters
OPR 1	5000	3rd Ave. Channel	OPR-62	5022	N. Edge of Tailrace; W. Side of 30th Ave	RCP/30	N. Channel of Platte R.
OPR 2	5050	Central Ave. and Landon St.	OPR-65	5021	N. Edge of Tailrace; W. Side of Country Club Lane	RCP/18	N. Channel of Platte R.
OPR 3	5144	Ave. F and Landon St.	OPR-66	5020	N. Edge of Tailrace; W. of OPR 77	CMP/8	N. Channel of Platte R.
OPR 4	5002	Ave. M and North Channel Intersection	OPR-67	5019	N. Edge of Tailrace; Country Club Golf Course	RCP/24	N. Channel of Platte R.
OPR 5	5003	Ave. Q and 20th St. E.	OPR-68	5017	N. Edge of Tailrace; W. of 19th Ave Bridge (Country Club Bridge)	CMP/18	N. Channel of Platte R.
OPR 6	5004	E. Hwy 30 and Antelope Ave	OPR-69	5069	E. Edge of Tailrace; N. of University Drive Bridge	CMP/36	N. Channel of Platte R.
OWR 7	5005	Grandview Detention Cell Outfall	OPR-70	5068	UNDER University Drive Bridge	RCP/24	N. Channel of Platte R.
OWR 8	5006	Eastbrooke Detention Cell Outfall	OPR-71	5064	W. Edge of Tailrace; S. of University Drive Bridge	RCP/36	N. Channel of Platte R.
OWR 9	5212	Ave. N and 66th St. Box Culvert	OPR-72	5063	W. Edge of Tailrace; N. of UNK Footbridge	RCP/48	N. Channel of Platte R.
OWR 12	5210	Loveland Dr. and W. 50th St. (N. edge of 50th)	OPR-73	5070	E. Edge of Tailrace; By UNK Health and Sports Center	RCP/18	N. Channel of Platte R.
OWR 13	5211	North End Lighthouse Point Lake	OPR-75	5062	S. Edge of Hwy 30; by 15th Ave	RCP/18	N. Channel of Platte R.
OWR 109	5228	N. Edge of 56th St./ West of Ace Hardware	OPR-76	5197	Loganview Apts. (W. edge of tailrace)	RCP/18	N. Channel of Platte R.
OPR 14	5230	N. Railroad St. Channel @ 17th Ave. (S. of Railroad)	OPR-77	5075	W. of Countryside Court and Driving Center; E. Edge of Tailrace	RCP/24	N. Channel of Platte R.
OPR 26	5024	Meadowlark Hills Golf Course Pond Overflow	OPR-78	5067	N. Railroad St./Tailrace (N. Edge of RR St./E. Edge of Tailrace)	RCP/36	N. Channel of Platte R.
OPR 45	5073	NE Corner of Hwy 30 & 15th Ave. Bridge	OPR-79	5198	W. 16th St./Tailrace	RCP/30	N. Channel of Platte R.
OPR 51	5065	Hwy 30 Drainage @ 19th Ave. Tailrace	OPR-80	5049	11th St./Tailrace (S. Edge of 11th; E. Edge of Tailrace)	RCP/24	N. Channel of Platte R.
OPR 56	5048	11th St. and 17th Ave. @ Tailrace	OPR-81	5077	S. Edge of Tailrace; N. of 3rd St./3rd Ave- Younesville	CMP/15	N. Channel of Platte R.
OPR 63	5199	14th St. Place @ Tailrace	OPR-82	5083	S. Edge of Tailrace; E. of 2nd Ave	RCP/18	N. Channel of Platte R.
OPR 64	5066	N. Railroad St. Channel @ 17th Ave. (N. of Railroad)	OPR-83	5213	S. Edge of Tailrace; W. of Central Ave	RCP/24	N. Channel of Platte R.
OPR 74	5074	Hwy 30/UNK Health and Sports Center	OPR-84	5072	Kearney Lake/Lakeview Dr. (E. side of lake, by University Dr.)	RCP/24	N. Channel of Platte R.
			OPR-85	5214	NE edge of Kearney Lake, off Lakeview Dr.	RCP/24	N. Channel of Platte R.
			OPR-87	5207	Archway Parkway -South Edge	RCP/42	N. Channel of Platte R.
			OPR-88	5208	Archway Parkway - N. Edge; Drains to lake	RCP/42	N. Channel of Platte R.
			OPR-89	5206	Archway Parkway - N. Edge; Drains to Lake/Basin	RCP/48	N. Channel of Platte R.
			OPR-90	5202	Archway Parkway - N. Edge; Prior to parking entrance	RCP/48	N. Channel of Platte R.
			OPR-91	5203	Archway Parkway- N. Edge; North of Primary Parking Lot	RCP/24	N. Channel of Platte R.
			OPR-92	5204	Archway Parkway- N. of Maze - West	RCP/24	N. Channel of Platte R.
			OPR-93	5205	Archway Parkway- N. of Maze -East	RCP/24	N. Channel of Platte R.
			OPR-94	5201	Archway Parkway- E. Side of Arch, Western most of the 2	RCP/15	N. Channel of Platte R.
			OPR-95	5200	Archway Parkway- E. Side of Arch, Eastern most of the 2	RCP/24	N. Channel of Platte R.
			OWR-97	5113	E. 56th St. Crossing NRD Drainage Canal	RCP/24	Wood River Valley
			OWR-98	5221	Furthest N. end of E. 62nd St.	RCP/42	Wood River Valley
			OWR-106	5226	51st St. Place...(North Edge of Lot 1503)	RCP/42	Wood River Valley
			OWR-110	5052	11th Ave Headwall-West; Spruce Hollow Subdivision	RCP/18	Wood River Valley
			OWR-111	5051	11th Ave Headwall-East; Spruce Hollow Subdivision	RCP/60	Wood River Valley
			OWR-112	5056	Spruce Hollow Boulevard (W. side of South Headwall)	RCP/36	Wood River Valley
			OWR-113	5196	Spruce Hollow Boulevard (E. side of South Headwall)	RCP/18	Wood River Valley
			OWR-114	5220	60th St./5th Ave (NW Corner)	RCP/36	Wood River Valley
			OWR-116	5088	2nd Ave/60th St. (NW Corner)	RCP/36	Wood River Valley
			OPR-126	5231	Parkview Estates (Rapps) SE Corner of 8th St./15th Ave	RCP/48	N. Channel of Platte R.
			OPR-127	5233	Parkview Estates- Fox Creek Phase II Cell	RCP/42	N. Channel of Platte R.
			OPR-128	5042	South end of Yanney Drive at Canal	RCP/54	N. Channel of Platte R.



4.e.i. Outfall Dry Weather Screening Protocols

The City of Kearney Stormwater Manager performs Dry weather, outfall reconnaissance every spring. The best time of the year to do this is when there are no flows (dry weather) from melting snow, rain, or sprinkler systems. Also, since access to a few of these outfalls is near to Kearney Canal/Tailrace/North Channel of the Platte River, the reconnaissance must be done prior to Platte filling it up in the spring.

The determining factor in deciding which outfalls to observe is the outfalls interior diameter (ID). Pipes with an ID of 36" or greater will be observed. A list of all the outfalls is accumulated with the GIS Division, in the Utilities Department. When as-builts are accumulated from completed projects the newly installed outfalls are added to this list. The as-builts give the pipe's ID, type and specific location of Inlets as well.

Certain field methods are required to complete the outfall observations.

- Ensure outfall is accessible, contact maintenance and operations if overgrown.
- Inspect outfall only if safe to do so
- Characterize the outfall by recording information on the 'Outfall Reconnaissance Inventory Forms.'
- Photograph the outfall with a digital camera (use dry erase board to identify outfall)
- If dry weather flow is present and does not appear to be an illicit discharge, attempt to identify the source of the flow (document flow for future comparison)
- Document dry outfalls for future comparison
- Follow procedure in an illicit discharge is suspected
- Do not enter private property without permission

Procedures to Follow if Illicit Discharge is Suspected:

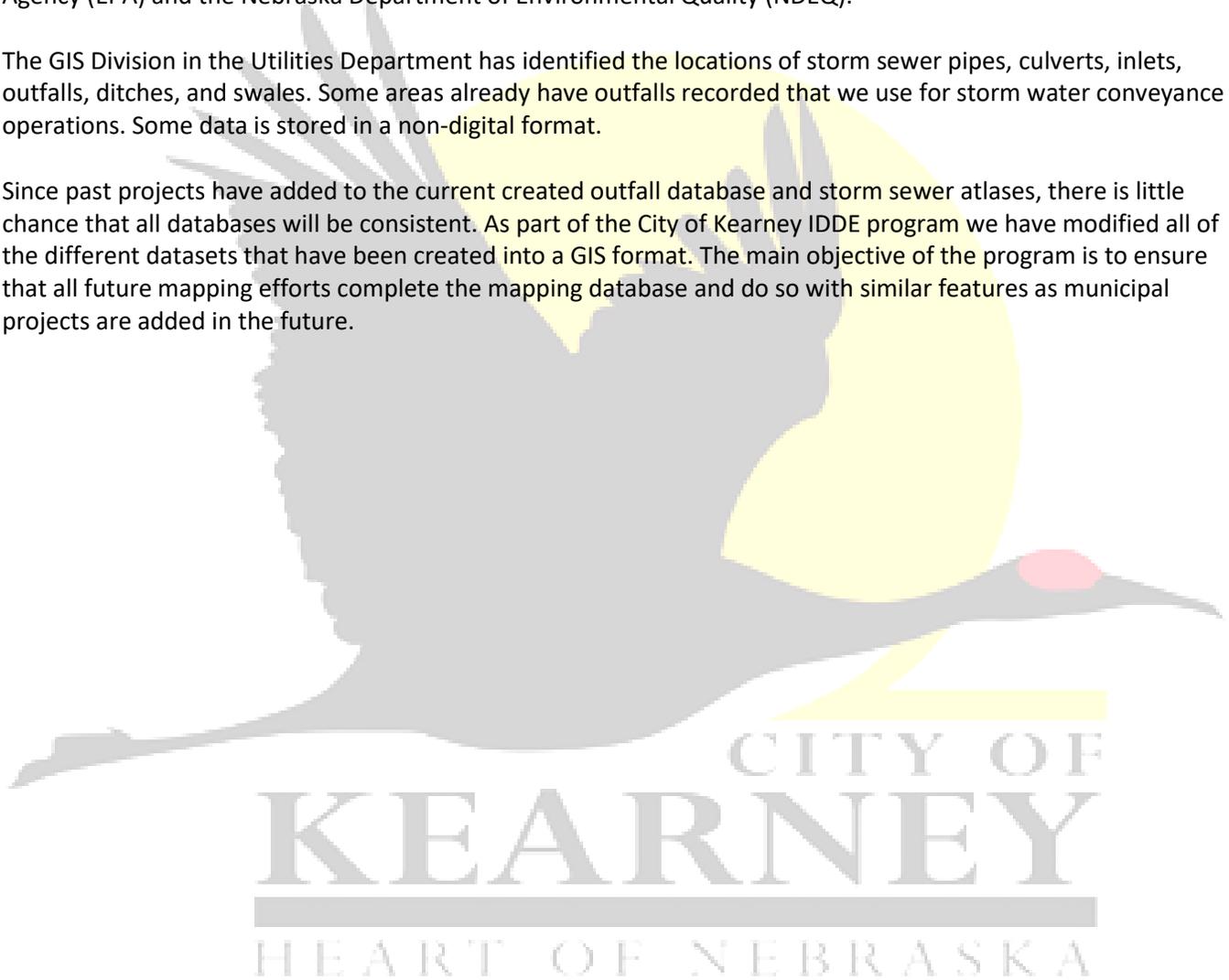
- Use Outfall Reconnaissance Inventory Form to document observations
- Visually inspect general area for possible sources
- Take photos
- Estimate Flow
- Collect samples if they would help with source identification
- Refer to investigating Illicit Discharges SOP for further directions on source identification.

4.f. Essential Staff Roles and Policy Summary

As part of the NPDES Phase II MS4 permit, permittees, are required to “develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters that receive discharges from those outfalls.” The map is to be used to assist permittees in completing the illicit discharge detection and elimination minimum control measure as outlined by the Environmental Protection Agency (EPA) and the Nebraska Department of Environmental Quality (NDEQ).

The GIS Division in the Utilities Department has identified the locations of storm sewer pipes, culverts, inlets, outfalls, ditches, and swales. Some areas already have outfalls recorded that we use for storm water conveyance operations. Some data is stored in a non-digital format.

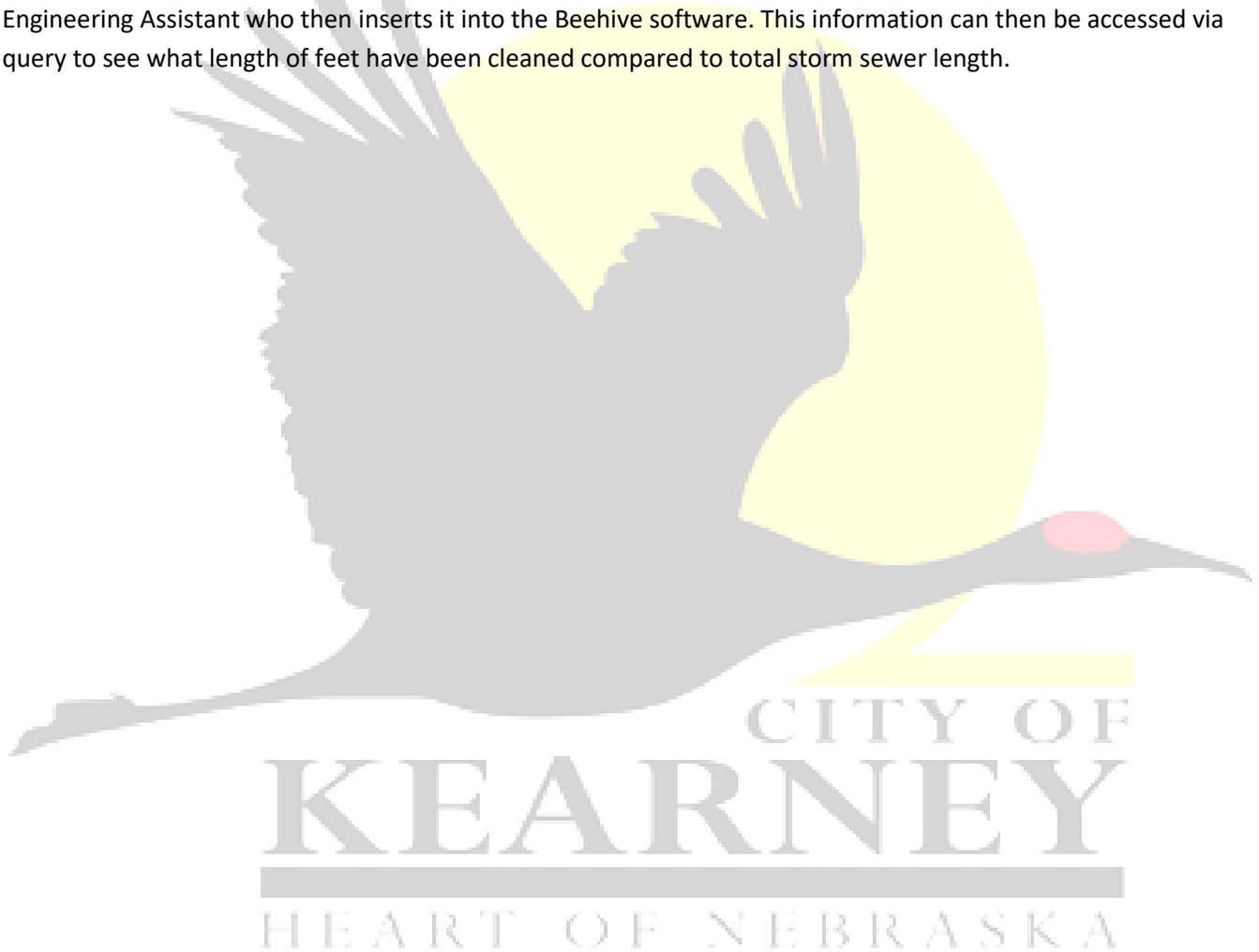
Since past projects have added to the current created outfall database and storm sewer atlases, there is little chance that all databases will be consistent. As part of the City of Kearney IDDE program we have modified all of the different datasets that have been created into a GIS format. The main objective of the program is to ensure that all future mapping efforts complete the mapping database and do so with similar features as municipal projects are added in the future.



4.g. Records and Reports Summary

The City of Kearney utilizes our GIS Division (in the Utilities Department) as well as a GIS software, named 'Beehive Industries' to control the status of our Storm Drain mapping information. The GIS Coordinator and the GIS Technician are responsible for updating the City Storm Drain map on a regular basis as the municipal projects are completed.

When a storm drain is maintained by the Street Division, the operators write down the access point in the intersection, the length of pipe, as well as the direction they cleaned. This information is then given to an Engineering Assistant who then inserts it into the Beehive software. This information can then be accessed via query to see what length of feet have been cleaned compared to total storm sewer length.

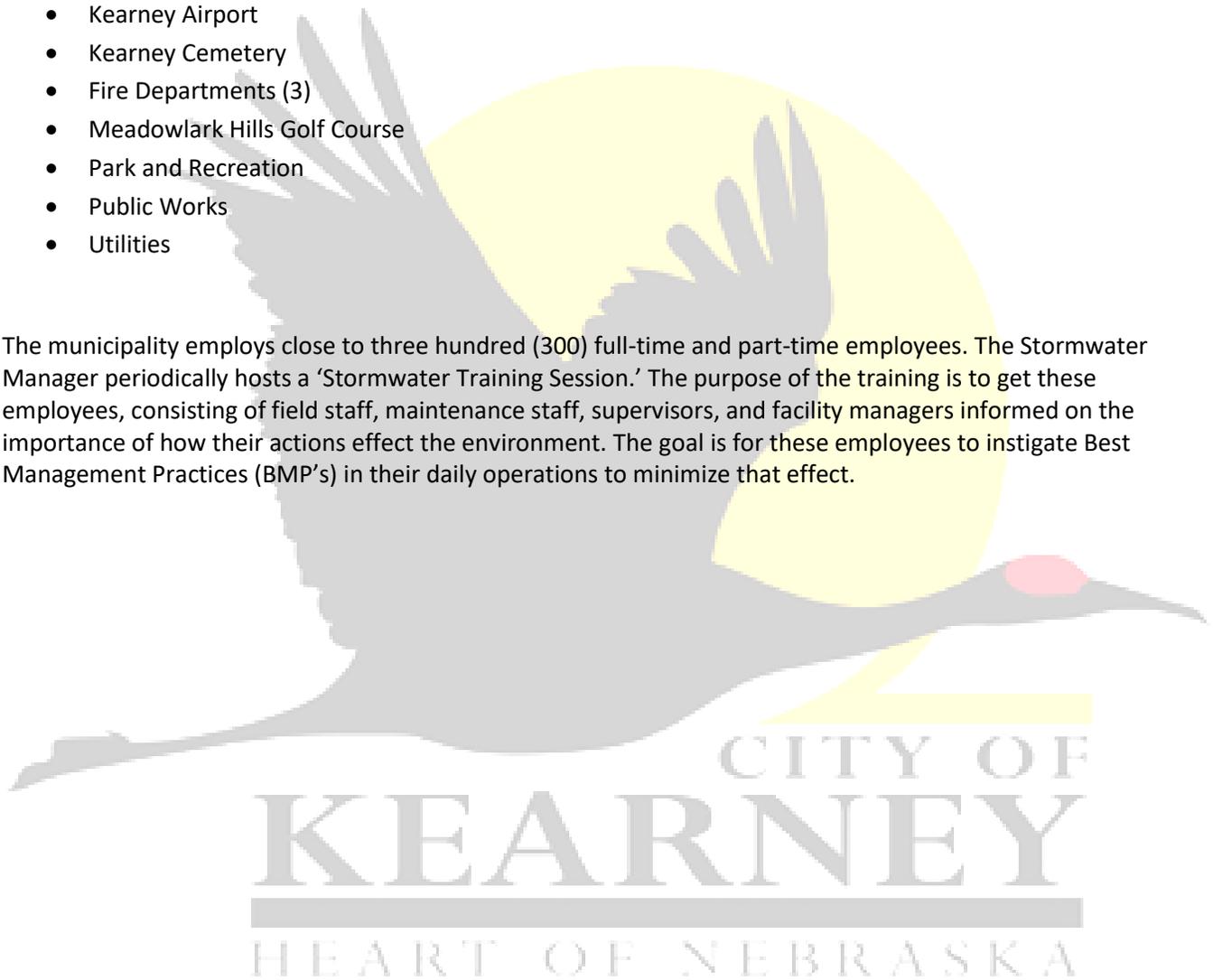


5. Municipal Storm Drain Education and Training

The City of Kearney consists of a myriad of Departments and Divisions spread out across twenty (20) square miles. The departments that keep the town running, and therefore implement the operations that create most of the municipality's stormwater pollution are:

- Kearney Airport
- Kearney Cemetery
- Fire Departments (3)
- Meadowlark Hills Golf Course
- Park and Recreation
- Public Works
- Utilities

The municipality employs close to three hundred (300) full-time and part-time employees. The Stormwater Manager periodically hosts a 'Stormwater Training Session.' The purpose of the training is to get these employees, consisting of field staff, maintenance staff, supervisors, and facility managers informed on the importance of how their actions effect the environment. The goal is for these employees to instigate Best Management Practices (BMP's) in their daily operations to minimize that effect.



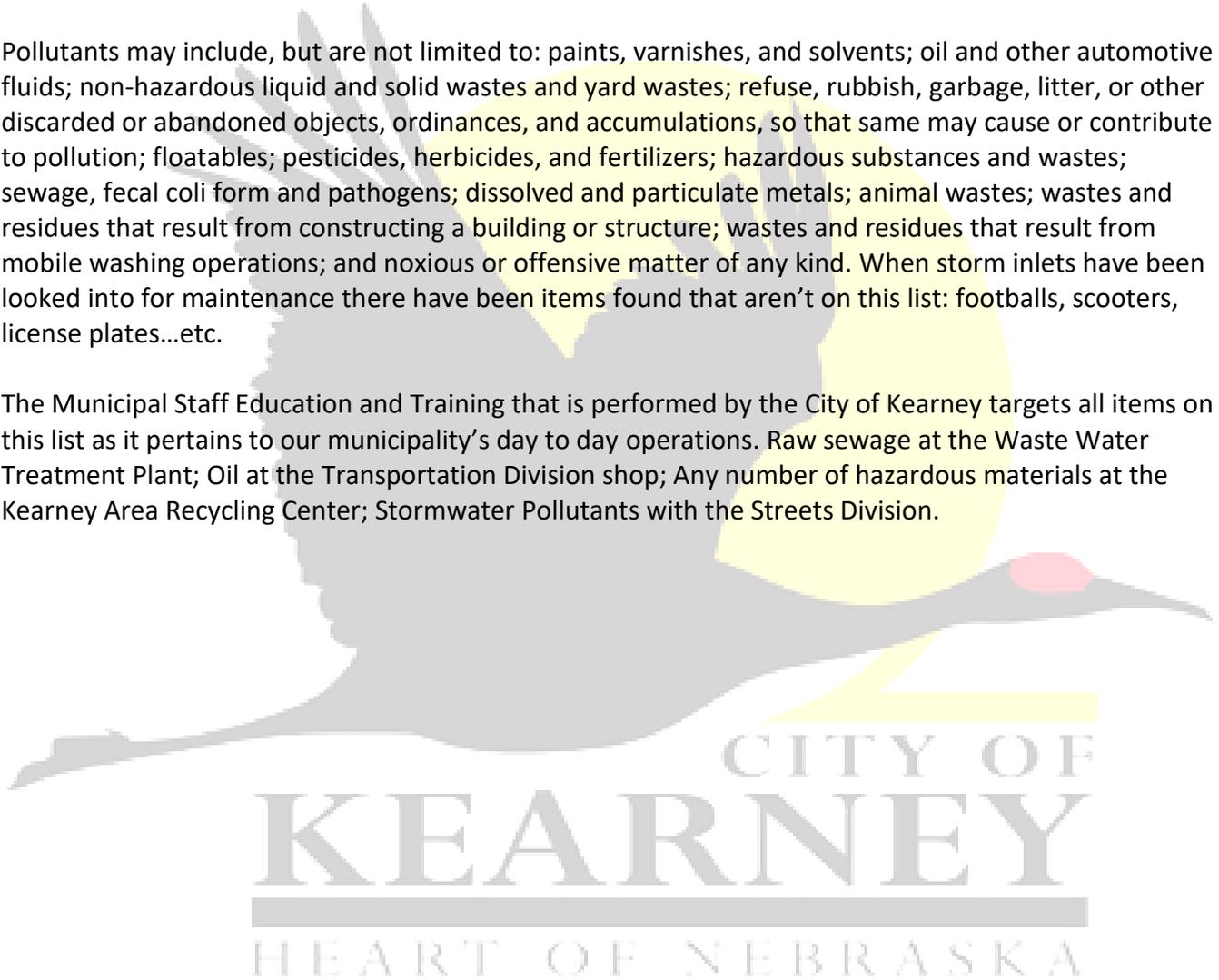
5.a. Target Pollutants of Concern

The City of Kearney is concerned with all pollutants that it introduces into not just the MS4, but the environment as well. However, being a municipality, it's similar to being an industry, where many of the pollutants that get into the MS4 are identifiable as 'point-source' pollution. The City of Kearney has a broad range of pollutants that it targets within its municipal storm drain system. Within the City of Kearney many of these points have been identified.

Kearney considers anything which causes or contributes to pollution.

Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coli form and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; wastes and residues that result from mobile washing operations; and noxious or offensive matter of any kind. When storm inlets have been looked into for maintenance there have been items found that aren't on this list: footballs, scooters, license plates...etc.

The Municipal Staff Education and Training that is performed by the City of Kearney targets all items on this list as it pertains to our municipality's day to day operations. Raw sewage at the Waste Water Treatment Plant; Oil at the Transportation Division shop; Any number of hazardous materials at the Kearney Area Recycling Center; Stormwater Pollutants with the Streets Division.



5.b. Target Audience and Resources

The City of Kearney has trained and will continue to train it's employees in:

- Fleet Maintenance
- Park and Recreation Maintenance
- Solid Waste Operations
- Street Drain Maintenance
- Material Storage
- Land Disturbances

All these aspects are utilized within the City of Kearney's daily operations and represent a point-source of pollution. Identifying the source of pollution is the first step in minimizing it. The target audiences for these training events are field staff, maintenance staff, supervisors, and facility managers which directly effect this point-source pollution in all departments throughout the municipality.

The City of Kearney has quite a few formats of media at its disposal, as well as conferences that it sends its employees to occasionally to get informed on updates to municipal operations. The City uses: guest speakers, newsletters, PowerPoint Presentations, movies, Emails, and Press Releases

Because the City of Kearney is involved in a cooperative with many other Nebraska communities (Nebraska H2O), we have access to professionally created material that isn't as available as if we were acting alone:

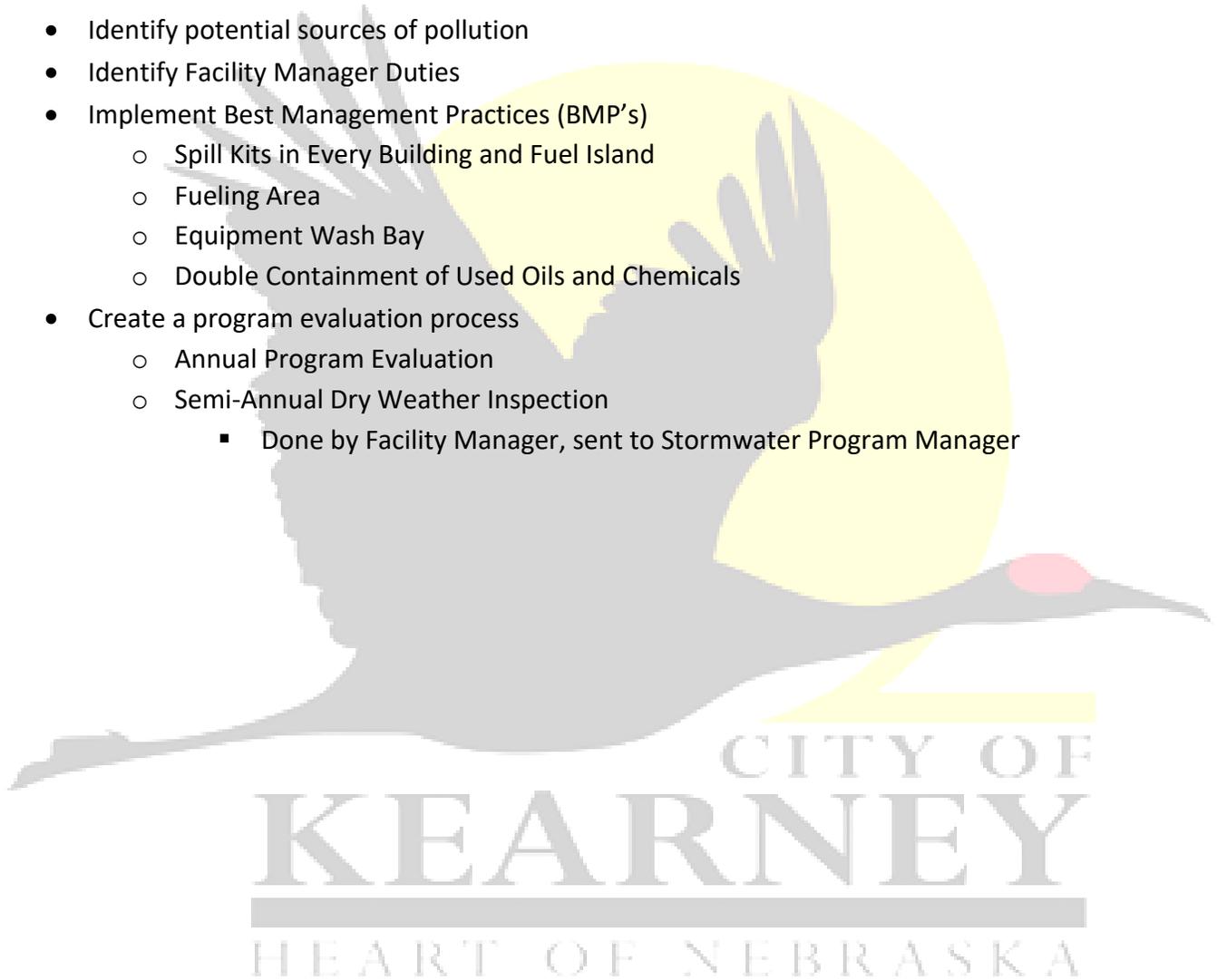
- Radio Public Service Announcements
- Best Management Practices guides
- Source Water Protection toolkit
- illegal dumping protocol videos
- Illicit Discharge Detection and Elimination resources
- site-specific training
- Stormwater Publications



5.c. Outcomes for Municipal Facility Maintenance

The City of Kearney maintains a training program regarding its 'Runoff Control Plan' for City employees. It introduces the concept of the 'Facility Runoff Control Plan' (FRCP) and the process for each facility evaluation. The goals for the FRCP training program:

- Identify potential sources of pollution
- Identify Facility Manager Duties
- Implement Best Management Practices (BMP's)
 - Spill Kits in Every Building and Fuel Island
 - Fueling Area
 - Equipment Wash Bay
 - Double Containment of Used Oils and Chemicals
- Create a program evaluation process
 - Annual Program Evaluation
 - Semi-Annual Dry Weather Inspection
 - Done by Facility Manager, sent to Stormwater Program Manager

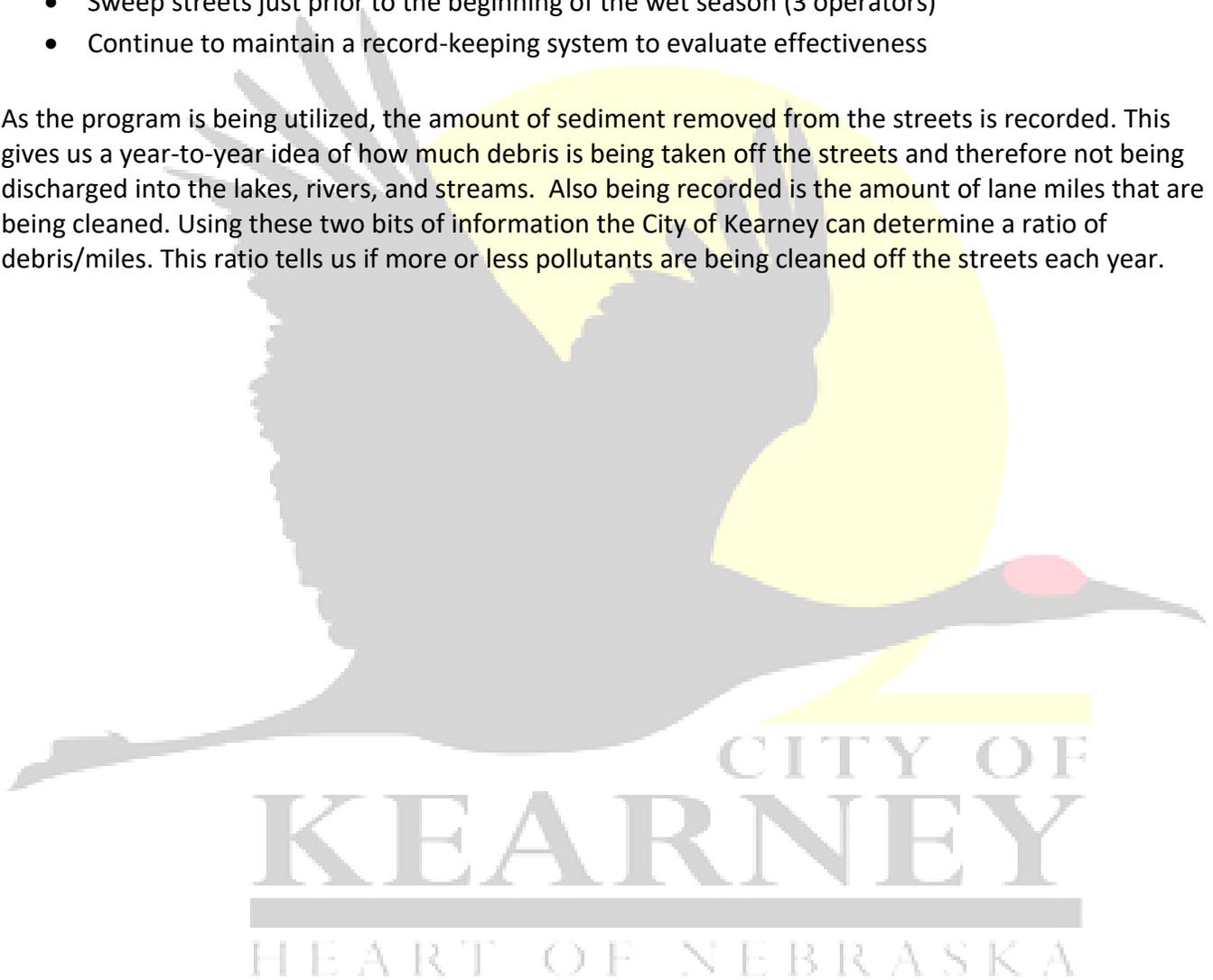


5.d. Outcomes for Sweeping Maintenance

The City of Kearney maintains a street sweeping program with a primary goal of improving lake, river, and stream water quality. The secondary goals are:

- Define the street sweeping program with frequencies
- Establish and maintain a consistent schedule
- Sweep streets just prior to the beginning of the wet season (3 operators)
- Continue to maintain a record-keeping system to evaluate effectiveness

As the program is being utilized, the amount of sediment removed from the streets is recorded. This gives us a year-to-year idea of how much debris is being taken off the streets and therefore not being discharged into the lakes, rivers, and streams. Also being recorded is the amount of lane miles that are being cleaned. Using these two bits of information the City of Kearney can determine a ratio of debris/miles. This ratio tells us if more or less pollutants are being cleaned off the streets each year.



5.e. Outcomes for Storm Drain Maintenance

The City of Kearney maintains a storm drain maintenance program with the goal of maintaining an active and usable storm sewer system. The City of Kearney Street Division is responsible the maintenance of the municipality's storm drain system. The goals of the Storm Drain Maintenance Program are to ensure our staff:

- Have a clear line of communication for receiving concerned citizens calls
- Have a quick reaction time to the issue
- Clean out inlet of concern as well as all pipes going to/coming from that inlet
- Maintain a record of which inlets have been cleaned out

