



CITY OF SPRING PARK
CITY COUNCIL AGENDA
MARCH 4, 2019 – 7:00 PM
SPRING PARK CITY HALL

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ADOPT MEETING AGENDA
4. ADOPT CONSENT AGENDA*
 - a. City Council Work Session Meeting Minutes from January 22, 2019
 - b. Regular City Council Meeting Minutes from January 22, 2019
 - c. 2019 Tour de Tonka Special Event
 - d. 2019 Lord Fletcher's Restaurant Summer Concert Series
5. PUBLIC FORUM **
6. PRESENTATIONS & GUEST SPEAKERS
 - a. Christie Larson - WECAN
7. PUBLIC HEARINGS
8. PETITIONS, REQUESTS, & APPLICATIONS
9. ORDINANCES & RESOLUTIONS
10. REPORTS OF OFFICERS AND COMMITTEES
 - a. Mayor & Council
 - b. City Staff
 - c. Contract Staff
11. NEW BUSINESS & COMMUNICATIONS
12. CLAIMS FOR PAYMENT
 - a. March 4, 2019 Claims
13. UPCOMING MEETINGS & TRAINING
 - a. March 12 – Administration Committee – 12:00 PM
 - b. March 13 – Planning Commission – 6:00 PM
 - c. March 13 – LMCD Work Session at 6:00 PM with Regular Meeting at 7:00 PM
 - d. March 18 – City Council Work Session – 6:00 PM
 - e. March 18 – Regular City Council Meeting – 7:00 PM
14. MISCELLANEOUS (INFORMATION ONLY)
 - a. Public Access Cleaning Station Report
 - b. Mound Fire Department Press Release
 - c. Mound Fire Department January Report
15. ADJOURNMENT

* The Consent Agenda lists those items of business which are considered to be routine, recommended for approval, and/or which need no discussion. The several separate items listed on the Consent Agenda are acted upon by one motion. There will be no separate discussion of these items unless a Council Member makes a request, in which event the item will be removed from the Consent Agenda and placed elsewhere on the regular agenda for Council discussion and action.

** Under Public Forum individuals may address the City Council about any item not contained on the regular agenda. Each speaker should keep their statements to three minutes to allow sufficient time for others. The Council will take no official action on items discussed at the forum, with the exception of referral to staff for future report.



CITY OF SPRING PARK
 WORK SESSION MINUTES
 JANUARY 22, 2019 – 6:00 PM
 SPRING PARK CITY HALL

CALL TO ORDER - The work session was called to order by Mayor Rockvam at 6:01 p.m.

Council Members Present: Jerome P. Rockvam, Mayor; Pamela Horton; Gary Hughes; Catherine Kane Palen; and Megan Pavot

Staff Present: Dan Tolsma, City Administrator; Mike Kuno, City Engineer; Brian Hare; Assistant City Engineer; Mary Tietjen, City Attorney; and Theresa Schyma, City Clerk

1. 2019 GOALS, PRIORITIES, & PROJECTS

City Administrator Tolsma stated the main topic for the goals discussion is capital projects and infrastructure since many other goals and staff items are continuing projects that are already in-progress.

City Engineer Kuno presented an infrastructure improvement project map with proposed timeline and expected costs. He further provided updates for ongoing projects including the ADA ramp improvements on Shoreline Drive and the flashing yellow arrow changes at certain intersections; both projects are expected to be complete by the end of 2019.

City Engineer Kuno discussed the right-of-way challenges for the Black Lake Road improvements and the potential need to re-plat the road.

City Attorney Tietjen discussed correcting the legal descriptions of properties on Black Lake Road through a process of prescriptive easements. She added that typically property owners understand the need to re-plat a road without compensation since property owners realize they have been using the City's right-of-way for their homes. This is simply a process of correcting legal descriptions to match how the road has always been used.

Mayor Rockvam asked about the funding for the list of projects being presented.

City Administrator Tolsma discussed several funding options to pay for necessary infrastructure improvements including bonding, levy increases, paying for certain items out of the Capital Reserve Fund and then approving a refunding resolution, and/or changing the City's assessment policy to be a city-wide assessment instead of a street by street assessment due to the small size of Spring Park.

Council Member Pavot stated she was in favor of changing the current street by street assessment policy since the City's most important role is infrastructure.

Council Member Kane Palen agreed.

Mayor Rockvam stated he would like our financial experts to be consulted so that the City Council can see the potential impact of any combination of these funding options prior to changing policies.

City Administrator Tolsma responded that City staff will work with the financial consultants so that the full impact of any changes will be extensively researched and presented.

City Engineer Kuno discussed the Sunset Drive improvements. He stated that Hennepin County has approved the project for the 2022-2023 CIP and the next step is that Hennepin County will reach out to discuss scheduling, planning, and design which could start in 2019. He further stated the City could ask for certain interim improvements that could be incorporated into the permanent design.

The City Council consensus was to ask the County to make interim lighting, pedestrian, and bike traffic improvements for safe passage along Sunset Drive.

City Engineer Kuno asked the Council if they would like him to approach Hennepin County regarding a pedestrian crossing for Shoreline Drive near the Minnetonka Drive-In.

The City Council consensus was to have the City Engineer approach Hennepin County for a pedestrian crossing on Shoreline Drive near the Minnetonka Drive-In to improve pedestrian safety.

2. FEBRUARY MEETING SCHEDULE DISCUSSION

City Administrator Tolsma asked for the Council to provide him with their availability in February as there may only be the need for one meeting that month.

3. MISCELLANEOUS – None.

4. ADJOURN - The work session was adjourned by unanimous consent at 6:59 p.m.

Date Approved: March 4, 2019

Dan Tolsma, City Administrator

Theresa Schyma, City Clerk

5.



CITY OF SPRING PARK
 CITY COUNCIL MINUTES
 JANUARY 22, 2019 – 7:00 PM
 SPRING PARK CITY HALL

1. CALL TO ORDER - The meeting was called to order by Mayor Rockvam at 7:06 p.m.

Council Members Present: Jerome P. Rockvam, Mayor; Gary Hughes; Pamela Horton; Catherine Kane Palen; and Megan Pavot

Staff Present: Dan Tolsma, City Administrator; and Theresa Schyma, City Clerk

2. PLEDGE OF ALLEGIANCE – Mayor Rockvam led the audience in the Pledge of Allegiance.

3. ADOPT MEETING AGENDA

M/Hughes, S/Horton to adopt the meeting agenda.

Motion carried 5-0.

4. ADOPT CONSENT AGENDA

- a. City Council Work Session Meeting Minutes from December 18, 2018
- b. Regular City Council Meeting Minutes from January 7, 2019
- c. This item was moved to Item #9a.
- d. Resolution 19-08: WeCAN Resolution of Support

RESOLUTION NO. 19-08

RESOLUTION RECOMMENDING CONTINUATION OF CDBG
 FUNDING OF WESTERN COMMUNITIES ACTION NETWORK (WeCAN)

This resolution appears as Resolution No. 19-08.

- e. Establish Open Book Meeting Date & Time: Thursday, April 18 from 6:00-7:30pm

Item #4c - Resolution 19-07: Approving Variance for Head-In Parking on Warren Avenue will be considered separately as Item #9a.

M/Pavot, S/Kane Palen to adopt the Consent Agenda as amended.

Motion carried 5-0.

5. PUBLIC FORUM – None.

6. PRESENTATIONS & GUEST SPEAKERS – Shirley Bren, Spring Park resident and Council appointed representative to the Gillespie Center, presented a report from most recent board meeting. She discussed the membership drive and announced upcoming events including the Polar Plunge on Saturday, January 26 at Surfside Park in Mound.

7. PUBLIC HEARINGS – None.

8. PETITIONS, REQUESTS, & APPLICATIONS

- a. Special Event 19-01 with Temporary On-Sale Liquor License for Back Channel Brewery Event on February 24th.

M/Pavot, S/Hughes to approve Special Event Application 19-01 SP EV with Temporary On-Sale Liquor License for Back Channel Brewery Event on February 24, 2019 with the list of conditions that were attached to the Staff Memo.

Motion carried 5-0.

9. ORDINANCES & RESOLUTIONS

- a. Resolution 19-07: Approving Variance for Head-In Parking on Warren Avenue (This item was originally Item #4c on the Consent Agenda)

City Administrator Tolsma stated the applicant has revised their request to only include 12 parking spots along Warren Avenue instead of the original plan which also included additional spots along Interlachen Road.

Council Member Horton requested to amend Resolution 19-07 to clarify the recent changes to the applicant’s request and correct the paragraph beginning “Now, therefore, be it resolved”. She changed the text from “site plan” to instead read “revised site plan dated January 16, 2019.”

M/Horton, S/Hughes that the following amended resolution be adopted and that it be made part of these minutes:

RESOLUTION NO. 19-07

RESOLUTION APPROVING THE SITE PLANS AND VARINANCE TO ALLOW HEAD-IN PARKING FOR TONKA VENTURES WEST AT 4164 SHORELINE DRIVE WITHIN THE CITY OF SPRING PARK

Motion carried 5-0. This resolution appears as Resolution No. 19-07.

10. REPORTS OF OFFICERS AND COMMITTEES

- a. Mayor & Council – Council Member Hughes presented the Council with the 2018 Fire Department numbers for fire and rescue calls in the City.

- b. City Staff – None.

- c. Contract Staff – None.

11. NEW BUSINESS & COMMUNICATIONS – None.

12. CLAIMS FOR PAYMENT

- a. January 22, 2019 Claims

M/Hughes, S/Kane Palen to approve all claims for payment.

Motion carried 5-0.

13. UPCOMING MEETINGS & TRAINING

- a. January 23 – Fire Commission – 11:00 AM
b. January 23 – LMCD Work Session at 6:00 PM with Regular Meeting at 7:00 PM
c. TBD – February 4 – Regular City Council Meeting – 7:00 PM

Council Member Hughes noted the potential cancellation of the February 4 Regular City Council Meeting.

City Administrator Tolsma responded that a decision will be made at a later date and that any cancellation would meet notification requirements.

14. MISCELLANEOUS (INFORMATION ONLY) – None.

15. ADJOURNMENT

M/Horton, S/Hughes to adjourn the City Council Meeting at 7:22 p.m.

Motion carried 5-0.

Date Approved: March 4, 2019

Dan Tolsma, City Administrator

Theresa Schyma, City Clerk



STAFF MEMO

TOUR DE TONKA SPECIAL EVENT
PERMIT APPLICATION

1. **BACKGROUND:** The City of Spring Park has received a completed special event application and required permit fees for the 2019 Tour de Tonka. The Tour de Tonka is a large bike event to raise funds for Minnetonka Community Education. The event has several different routes ranging in length from 16 miles up to 100 miles. The proposed 48 and 57 mile routes will come through Spring Park on the Dakota Rail Trail with riders traveling west to east. The event is scheduled for Saturday, August 3 from 9:00 a.m. to noon.
2. **DISCUSSION:** A representative from Minnetonka Community Education will attend a City Council meeting in June or July to give a brief presentation on the event and to answer any questions from the Council.

Basic event information:

- No plans for sound amplification, vendors or concessionaires, and food or beverages in Spring Park;
- There is not a rest stop in Spring Park;
- Volunteers will use on-street parking;
- Event organizers are not requesting use of any City services or equipment;
- Event organizers will work closely with Three Rivers Park Police and Orono Police to ensure a safe riding experience for riders and for Spring Park residents; and
- Event organizers will have trail riders sweeping the course at the end of the event for sanitation and trash collection, though organizers will not be giving out anything to riders during their time in Spring Park.

The conditions that were approved for last year's event are attached. Both Police and Fire have reviewed the application and have given their consent with no additional comments.

3. **FINANCIAL CONSIDERATIONS:** There is no cost to the City.
4. **RECOMMENDATION:** Approve Special Event Permit Application #19-02 SP EV for the Tour de Tonka bike ride event on Saturday, August 3, 2018 with the attached list of conditions.

CONDITIONS TO 2019 TOUR DE TONKA SPECIAL EVENT

- 1) Event organizer will work with Three Rivers Park Police and /or Orono Police to provide uniformed officers or police reserves at Sunset Dr. trail intersection crossing located in Spring Park to enforce trail rules and provide traffic control and assistance to Tour de Tonka participants. Any additional costs associated with this provision will be paid for by event organizer.
- 2) Event organizer will provide a minimum of two uniformed tour volunteers at the Kings Road trail intersection crossing to enforce trail rules and provide traffic control and assistance to Tour de Tonka participants. Additionally, event organizer will provide the city with a phone number where a Tour de Tonka official can be contacted on the day of the event.
- 3) Event organizer will provide on-bike patrols on the Spring Park section of the trail at least 45 minutes prior to the start of the event to inform trail users of the event.
- 4) Because the trail is not closed to the general public, event organizers will provide educational materials to the tour participants that instruct their riders about trail etiquette and how to safely traverse the trail. It is imperative that tour participants are furnished with information that states that the Dakota Rail Trail is a heavily used multi-purpose trail and that on the tour day it will be shared with regular weekend bikers, runners, pedestrians, etc. Tour participants will be instructed to adhere to common practices such as:
 - a. Calling out when passing pedestrians on the left.
 - b. Obeying stop signs unless signaled by police officer at roadway intersections.
 - c. Bike within the appropriate bike lane of the trail – not down the center line or across the centerline.
 - d. Do not pass pedestrians on the right.
 - e. Ride single file except when passing.
- 5) Event organizer will install informational signs at the Kings Rd. and Sunset Dr. trail intersection crossings at least 2 hours prior to the start of the event.
- 6) Event organizer will issue a press release notice in one or more various local newspapers (Laker, Lakeshore Weekly, etc.) prior the event to notify area residents of the event.
- 7) If the above conditions are not met the City of Spring Park reserves the right to deny future Tour de Tonka special event requests in the City of Spring Park.



STAFF MEMO

LORD FLETCHER'S SUMMER CONCERT SERIES PERMIT APPLICATION

1. **BACKGROUND:** The City of Spring Park has received a completed Music Concert Season Series permit application and required fees for the 2019 Lord Fletcher's Summer Music Concert Series.
2. **DISCUSSION:** The basic event information for the annual summer concert series at Lord Fletcher's Old Lake Lodge, 3746 Sunset Drive, is listed below:
 - Concert organizers are not requesting use of any City services or equipment;
 - Traffic will be controlled and the concert series will conform to all current rules, regulations, and ordinances of the City of Spring Park;
 - The event organizers will ensure that all parking for the event will take place on private property and conform to all City rules related to parking;
 - The on-site sound technicians and staff are aware they need to stay within the allowed performance times and sound levels; and
 - Concert organizers will work closely with Orono Police to ensure a safe experience for all concert attendees as well as provide the least amount of disruption to Spring Park residents as possible.

The conditions that were approved for last year's permit are attached. Both Police and Fire have reviewed the application and have given their consent with no additional comments.

3. **FINANCIAL CONSIDERATIONS:** There is no cost to the City.
4. **RECOMMENDATION:** Approve Music Concert Season Series Application #19-01 MC for the 2019 Lord Fletcher's Summer Music Concert Series with the attached list of conditions.

CONDITIONS TO 2019 MUSIC CONCERT PERMIT - LORD FLETCHER'S

- 1) Outdoor music concerts will be permitted on Saturdays, Sundays and Holidays from 3-7 p.m. and Thursdays and Fridays 6-9 p.m. only.
- 2) Lord Fletcher's may hold outdoor music concerts during a period commencing no earlier than May 23, 2019 and ending no later than September 2, 2019.
- 3) Lord Fletcher's will comply with all applicable laws, ordinances, and codes and will continuously monitor its property and surrounding streets, lakeshore and docks to ensure compliance. This specifically includes, but is not limited to and compliance with, serving of alcohol, posted occupancy loads, proper designated unobstructed exits, all fire safety and emergency evacuation requirements, noise requirements, and Hennepin County Sheriff's Water Patrol requirements.
- 4) Live music played by a band or DJ within the building shall not be amplified outside through the use of speakers.
- 5) Lord Fletcher's will employ at its expense identifiable security staff and off-duty police personnel to sufficient to insure its compliance with item 3.
- 6) If Orono Police requests music be stopped because of complaints or violations of permit conditions or City ordinances, Lord Fletcher's will immediately and willingly comply with the request and will not resume the music that day.
- 7) Lord Fletcher's will make every reasonable effort to ensure that its music concerts and DJ amplification does not exceed the state guidelines for noise as defined in Minnesota Rules 7030, as well as the following db limits for sustained periods of time (defined as: one continuous exceedance for a duration of more than ten seconds, or five or more individual exceedances in any one minute period) at the soundboard (85), or any nearby residence (65). Sustained db levels above and beyond the db limit at any of the three locations shall be deemed as non-compliance with this section. The City Council reserves the right to modify the db limits at any time throughout the duration of this permit.
- 8) Lord Fletcher's agrees to have a qualified sound technician on the premises at all times amplified music is being played outside. The sound technician shall possess the proper knowledge and equipment capabilities to effectively control volume levels. The sound technician shall also exercise authority over the volume controls of performers if they fail to comply with requests to decrease their own volume levels.
- 9) Lord Fletcher's will deposit with the City \$1,500 to be placed in a non-interest bearing escrow account. In the event the City incurs expenses related to monitoring or regulating noise levels or the performance of live music at Lord Fletcher's the City shall be reimbursed from the escrow account. Any unused funds remaining in the escrow account after the final performance of the year shall be repaid to Lord Fletcher's within 30 days of the final performance of the year.
- 10) Lord Fletcher's will provide the City in advance with a list of all scheduled music concert events.

- 11) Refrigeration equipment/trucks shall be located on the property so as not to interfere with the peace and quiet of adjacent properties.
- 12) Lord Fletcher's will reposition the directional speakers and drum shield in a manner designed to mitigate noise escapement.
- 13) Lord Fletcher's will place a sound barrier fence west of the stage.
- 14) Lord Fletcher's agrees that the city will periodically monitor the noise levels at the property line. Should those results indicate excessive noise levels on more than one occasion or, if the Orono Police request that the music be stopped five or more times during the permit period, the City will have the right to revoke the permit – after a formal hearing at a regular or special Council meeting.
- 15) Lord Fletcher's will educate its employees regarding appropriate methods for responding to complaint calls and procedures for forwarding complaints to management.
- 16) Lord Fletcher's will hold semi-annual meetings with neighborhood residents from both Spring Park and Orono to provide a forum for the discussion of possible concerns regarding its music concerts.



Waterless Cleaning Stations 2017 Minnesota Pilot Outcomes



CD³ Station Sites: five locations spanning State & watercraft users:

- Lake Minnetonka, Hennepin County
 - Spring Park Bay
 - North Arm Bay
- Bryant Lake, Three Rivers Park District
- Pike Lake, Canosia Township
- Lake Riley, City of Eden Prairie

Launch Managers:

Municipalities, township, park district & county,

Targeted AIS:

zebra mussels, eurasian water milfoil, starry stonewort & spiny waterflea

Executive Summary

Clean-Drain-Dry-Dispose (CD³) Waterless Cleaning Stations provide free tools empowering day-boaters to take action to prevent the spread of Aquatic Invasive Species (AIS). The stations are a waterless, free, user operated cleaning equipment including wet/dry vacuum, blower, and tethered hand tools. Internet connected, the stations log use, maintenance, and functionality.

Successfully piloted in Minnesota at five locations, CD³ Station software logged over 6,500 volunteer AIS prevention actions taken by boaters (approximately 2,200 watercraft). Accessible 24/7, CD³ Stations have been proven to extend AIS budgets.

Where and Why CD³?

The U.S. Geological Survey estimates the number of unique AIS species in the U.S. has grown from 10 species in 1800 to presently over 1,000 species. In Minnesota, the number of waterbodies infested with AIS has more than doubled in the last decade- from 247 in 2007 to 522 in 2017. A similar expansion of AIS is occurring across the country. AIS expansion not only represents growth of preexisting species such as eurasian water milfoil but also the introduction of increasingly destructive species such as zebra/quagga mussels.

Negative economic and biological impacts from AIS correlate with infestations. Many case studies support the link between AIS and hardship on local economies by impacting tourism and property values. With nearly 3,000 public boat launches in Minnesota, current prevention practices cannot scale.

In response to the looming threat of AIS, the Minnesota Outdoor Heritage Fund and the National Fish and Wildlife Foundation, sponsored Wildlife Forever to pilot five CD³ Stations across the state of Minnesota. The goal of the pilot was in part to ensure technologies are proven and transferable across the country.

CD³ Station 2017 Results

On June 21, 2017, the first of five CD³ Stations was installed. Each unit is strategically placed on a concrete pad adjacent to the traffic flow and hard wired with electricity. After two boating seasons

in the field (2017 & 2018), the five equipment pilots performed without major issue. The MyCD³Station.com software logged use, operations, and provided maintenance alerts. In total **boaters used over 28,400 tools.**

Tool	Number of Uses*
Blower	4,345
Vacuum	2,837
Light	1,166
Brush	7,905
Wrench	4,183
Grabber	8,051

*As of Oct, 2018

An average boater uses of 3 tools used per visit, CD³ cleaned an estimated 2,200 watercrafts. During a 180 day Minnesota boating season, CD³ Stations add value in the following ways:

- *Highly visible AIS engagement and awareness tool for visitors*
- *24/7 accessible equipment provides \$50,000+ value, if paid \$12/hr/year*
- *7+ year asset at low operational cost of septic & electrical ~ \$250/season*
- *Use metrics and maintenance alerts via MyCD³Station.com software*
- *Technology options for boaters to CD³ 'check in' and 'check out' at a launch*

Maintenance Needs

The system is designed to empower boaters to physically remove water, plants, and animals from watercraft and trailers.

MyCD3Station.com software monitors use and provides maintenance alerts such as vacuum tank capacity and tool malfunction warnings. Vacuum tanks are serviced by a septic company after approximately 500 boats and emptying costs roughly \$55 per cleanout. Electricity demands averaged \$2 per month at \$0.10/kWh. Vinyl covers protect the equipment during winters and aftermarket service and/or parts are readily available as needed.

User Feedback

To optimize performance, stakeholder and user feedback will be incorporated in design modifications for 2018. The feedback has included:

1. Everyone likes a clean boat:

"I really like the brush and squeegee to clean my bunks and side of boat."

-Todd H., Lake Riley angler

"I was really impressed with the use by boaters, it has exceeded my expectations."

-Tony Brough, Hennepin County AIS Manager

2. Proven, field ready equipment:

"We were very happy with the use by boaters at the launch and functionality of CD³ equipment."

-Brian Vlach, Three Rivers Park District, Senior Water Resource Manager

"The future is this type of equipment, it really has gotten used by boaters."

-Kevin Cornick, President Canosia Township

3. Empowering all boaters to act:

"Education & awareness can go only so far, CD³ provides the tools for boaters to take action."

-Pat Cozemius, Conservation Director Wildlife Forever

"CD³ provides an opportunity to empower boaters to act to help stop aquatic hitchhikers - clean, drain and dry."

-Doug Jensen, AIS Program Coordinator, Sea Grant Program

Next Steps

CD³ Stations are intended to integrate with inspection and high-pressure, temperature decontamination programs. By empowering behavior change in boaters and investing in a long-term infrastructure, CD³ Stations extend budgets and add versatility to AIS prevention plans.

Due to the success of the pilot, resource managers worldwide are looking to adopt the use of CD³ Stations in 2018 and beyond.

CD³ is a public benefit corporation with a mission, "To develop technologies that empower people to reduce the spread of aquatic invasive species and safeguard local economies and the natural environment." Please let us know how we can better help accomplish your AIS prevention goals.

CD³ Station Locations

Pike Lake, Canosia Township

- Rural public access
- 794 Inspections 2016
- 12 trailer parking stalls
- Clean out or clean in CD³ location
- Retrofit at grade with bollards



Bryant Lake, Three Rivers Park District

- Suburban public park open 7am - 10pm
- 810 inspections 2016
- 19 trailer parking stalls
- Clean out or clean in location
- Retrofit design, top of curb



Lake Minnetonka, Spring Park Bay

- Urban highly used public access
- 3,916 inspections 2016
- 8 trailer parking stalls
- Clean out CD³ location
- Retrofit design - at grade with bollards, arrows & stop bar
- 1.5 KwK solar powered



Lake Minnetonka, North Arm Bay

- Urban highly used public access
- 3,552 inspections 2016
- 24 trailer parking stalls
- Clean out CD³ location
- Retrofit design - at grade with bollards, arrows & stop bar



Lake Riley, Eden Prairie

- Suburban public access
- 2,020 Inspections 2016
- 8 trailer parking stalls
- Clean out CD³ location
- New construction at grade with bollards, arrows



Public access re-design observation summary

In 2012, Hennepin County piloted a project to re-design the North Arm public access on Lake Minnetonka using theories from behavior change research to prompt boaters to take proper aquatic invasive species (AIS) prevention actions. Based on the success of this pilot and the development of new technology, the county expanded accesses re-design at Spring Park, Lake Minnetonka and Long Lake public accesses.

The county's current behavior change strategies include: the CD3 waterless cleaning system, which provides the tools to facilitate the actions; pavement markings to influence traffic flow, designated locations to take AIS prevention measures; and signs to prompt the desired behaviors. Using this full complement of behavior change strategies, the county re-designed the access at Spring Park starting in 2016 (completed in 2018) and at Long Lake in 2018.



CD3 waterless cleaning system

In 2017 and 2018, the county hired Fortin Consulting to observe the AIS prevention behaviors boaters took at various public accesses when Minnesota Department of Natural Resources (DNR) inspectors were not present. The Three Rivers Park District (TRPD) also recently provided a report of "Use and Satisfaction of CD3 Watercraft Cleaning Stations" (Nov 2018) summarizing observations and surveys.

Redesigned accesses have better compliance rates

Public access that have been redesigned to emphasize AIS prevention actions have fewer violations than traditional accesses. In 2017, observers at traditional accesses (Long Lake, Weaver Lake and Lake Minnetonka – Surfside access) found AIS violation rates of about 20 percent. After access redesign, the violation rate at Long Lake was cut in half to about 10 percent. At the Spring Park access, violation rates were at 16.5 percent in 2017 and dropped to 6.3 percent in 2018.

Observed violation rates compared by access design

Location	Lk. Mtka – Spring Park		Long Lake		Weaver Lake	Lk. Mtka Surfside
	2017	2018	2017	2018	2017	2017
Access design	CD3, stop bars, signs	3-CD3 stations/outposts	Traditional access	CD3, stop bars, signs	Traditional access	Traditional access
Any violation	16.5%	6.3%	20.3%	9.9%	20.4%	21.8%

*Observation data when access inspectors where not present.

Redesigned accesses have better self-inspection rates

The percentage of boaters observed inspecting their own watercraft or trailer at the access increased at redesigned accesses. Below are the percentage of boaters that were observed taking a “thorough – bent over to search” or took a “quick look” for vegetation. Self-inspections increased by one-third, up to 63 percent in re-design year-one at Long Lake and 92 percent for re-design year-two at Spring Park.

Observed self-inspection rates compared by access design

Location	Lk. Mtka – Spring Park		Long Lake		Weaver Lake	Lk. Mtka Surfside
Year	2017	2018	2017	2018	2017	2017
Access design	CD3, stop bars, signs	3- CD3 stations/ outposts	Traditional access	CD3, stop bars, signs	Traditional access	Traditional access
Self-inspection of watercraft	66%	92%	48%	63%	57%	64%

**Observation data when access inspectors where not present.*

Re-designed accesses are successful at creating social norms and prompting action

The changes to the traffic flow using stop bar markings and simple instruction signs serve as prompts to remind people to take the appropriate action and can help overcome the issue of boaters operating on auto-pilot as they complete the tasks to launch their watercraft. At the Spring Park access in 2018, observers found that 87 percent of boaters followed the traffic markings and stop bars when entering and exiting.

Once boaters start using the designated space and CD3 station, it served to create a social norm. This is an important behavior change tool setting expectations. People are more likely to take an action if they see their peers modeling that action. This social norming aspect was observed by the TRPD report that noted departing watercraft were significantly more likely to use a CD3 station when they had to wait to use the system (57 percent) compared to when nobody ahead of them was using the CD3 station (19 percent).

It is also interesting to note that the full benefits of the redesigned access may take a few years to be realized. Compliance and self-inspection rates have improved at Spring Park between 2017 and 2018. Note that two additional CD3 outposts were added in 2018. The county will continue to gather observation data in 2019 to better understand the changes in behavior over time.



CD3 outpost and prompt signs

Observed rates of boaters following traffic markings compared by access design

Location	Lk. Mtka – Spring Park		Long Lake		Weaver Lake	Lk. Mtka Surfside
Year	2017	2018	2017	2018	2017	2017
Access design	CD3, stop bars, signs	3- CD3 stations/ outposts	Traditional access	CD3, stop bars, signs	Traditional access	Traditional access
Followed traffic Markings	67.2% in 83.3% out	87.5% in 87.5% out	43.8% in 51.6% out	41.1% in 68.8% out	46.4% in 61.9% out	70.7% in 66.7% out

**Observation data when access inspectors where not present.*

Boaters behave differently when DNR inspectors are present

Another interesting finding related to social norming was that CD3 station use decreased significantly at Spring Park when a DNR inspector was present. In 2018, TRPD staff observed that only 3 percent of boaters used the CD3 station at Spring Park when a DNR inspector was present, compared to 9 - 19 percent when an inspector wasn't present. In two other CD3 locations in Hennepin County (Bryant and Riley), the use rates were higher and stayed the same with or without the presence of a TRPD access inspector. TRPD reports that staff at Bryant and Riley lakes periodically educated and encouraged boating visitors about the CD3 stations. Inspectors could take a proactive role in educating and encouraging boaters to use the CD3 stations.

Data on tool use and timing can be used to improve AIS prevention programs

There are significant differences in county accesses and watercraft that boaters launch. This appears to create differences in which CD3 tools are used. As new tools are invented, accurate data can be gathered to target the tools for each specific access condition and user preferences. For example, a longer grabber tool and the current grabber tool could be installed at a Lake Minnetonka CD3 station. The CD3 tool monitoring data would help to determine which grabber tool is preferred, assuming that the larger boats may prefer the longer tool. Another example, at Long Lake in 2018, the percentage use of the vacuum plus air blower was greater than 50 percent of all tool use. At Spring Park, the vacuum and air blower accounts for less than 18 percent and the grabber tool alone accounts for about half of all tool uses. This may be attributed by Spring Park observation description of "weedy" 88 percent of the time and Long Lake only 14 percent.



*Illustration from CD3 station instructions
Image courtesy of CD3*

Boating traffic at public accesses is not steady. Spring Park high use period appears to be from 3 pm to 7 pm. Public access use varies per season, lake, and time of day. The CD3 tool monitoring data can be another tool to improve inspection programs by matching inspections times to high use times.

Traditional access signage has limited affect

As with most accesses, there is traditional signage located at a designated location. This signage includes numerous topics such as rules of the road, fishing restrictions, AIS laws, etc. Despite whether an access had been redesigned or not, the percentage of boaters that were observed to either "Read signage" or "Glanced at signage" was low. In two years of observations, 4.7 percent were observed to either "Read signage" or "Glanced at signage."

Redesigning accesses can be cost effective way to prevent the spread of AIS

Having inspectors at all accesses, all the time, is not financially sustainable. In Hennepin County, having inspectors at all boat/trailer accesses from 6 am to 9 pm throughout the boating season would cost more than \$2 million. Staff recommends expanding efforts to redesign accesses towards AIS prevention actions and randomizing the times and locations of inspection programs. Optimizing use times and creating uncertainty as to when inspectors will be present may be more effective. As the basic clean-drain-dry-dispose AIS prevention actions continue to become more normalized behaviors, AIS prevention budgets may be effective by shifting towards regional courtesy decontamination station availability, education for when decontamination is necessary, and/or more enforcement actions targeting the last percentages of violations.

Comparison of costs for access re-design compared to access inspectors

	CD3	Signage	Stop bars	1 yr	5 yr
Access re-design (<i>typical access</i>)	\$30,000	\$3,000	\$1,200	\$13.41/hr	\$2.74/hr
Level 1 access inspector				\$15/hr	\$15/hr

Contact information

For more information on the county's AIS prevention efforts, contact:

Tony Brough, Senior Environmentalist

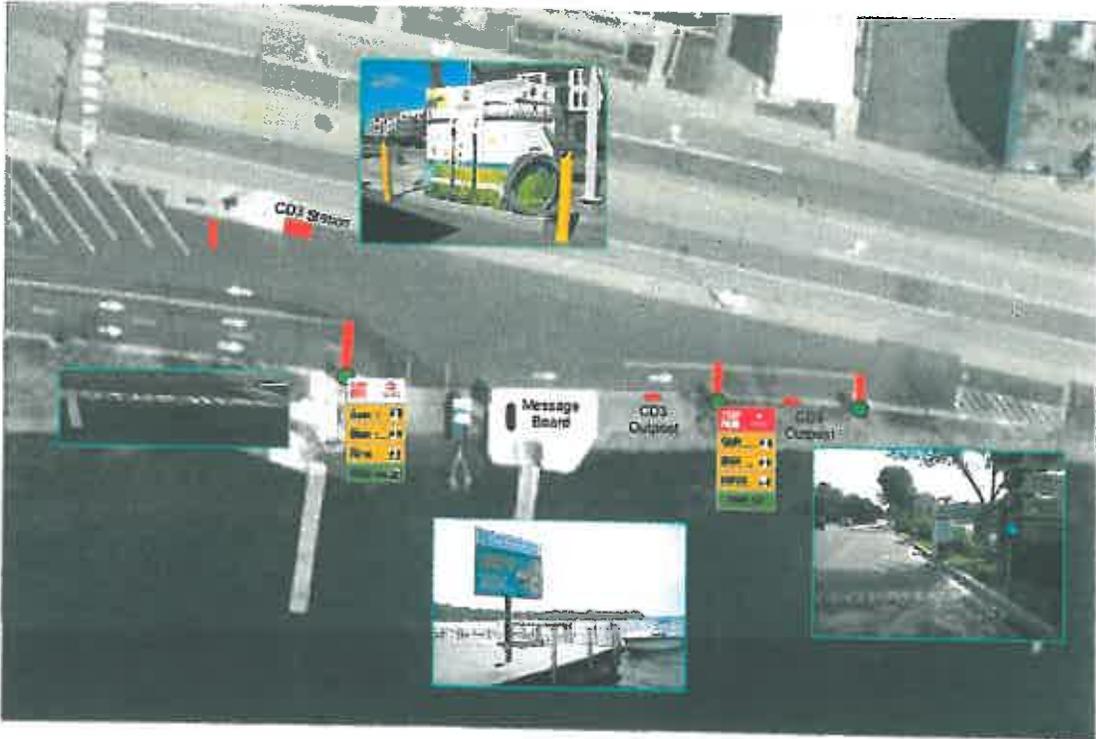
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1600 Prairie Drive, Medina, Minnesota 55340
www.hennepin.us/AISprevention

Aerial photos depicting layout of AIS prevention tools

Spring Park – Lake Minnetonka (2016-2018)



Long Lake (2018)



Minnesota Aquatic Invasive Species Research Center

Preventing the overland spread of aquatic invasive species **Evaluating CD3 Station efficacy on the removal of residual water from recreational boats**

FINAL REPORT

Introduction

Preventing the spread of aquatic invasive species (AIS) is essential to maintaining the ecological and economic integrity of waterbodies for generations to come. One risk factor that has received considerable attention is the residual (e.g. remaining) water left in a watercraft after it leaves a waterbody and can be transported and potentially released into another waterbody. Zebra mussel (*Dreissena polymorpha*) veligers are particularly concerning for this pathway given that they are microscopic, planktonic, and have been found in the residual water of recreational boats leaving infested waterbodies in previous research. While regulations (e.g. pulling drain plugs) have been developed to reduce this risk, residual water often remains in the watercraft despite regulatory compliance. While the volume and location of the residual water can be highly variable and watercraft-specific, methods to further reduce the risk of moving residual water in recreational watercraft is warranted.

Many options may exist for reducing residual water in recreational watercraft, including watercraft re-designs that improve drainage, thorough decontamination practices, watercraft inspection and enforcement, and education/outreach that supports the clean, drain, dry message. One option that is gaining popularity is the CD3 Station (<https://www.cd3station.com>). These stations are multifunctional units permanently installed at boat launches that offer boaters the opportunity to, among other things, remove residual water from watercraft with a vacuum. The purpose of this project was to perform a preliminary evaluation of the practicality and effectiveness of a CD3 Station vacuum for removing residual water from various recreational boats. This study is not intended to be an endorsement of CD3 Stations.

Methods

Three different boats were used for this project: A) 16 foot fishing boat with hand tiller motor and one water holding compartment (livewell); B) 18 foot fishing boat with single console, outboard motor, and one water holding compartment (livewell) and a; C) 20 foot ski boat with inboard/outboard motor. During each trial, lake water was deliberately introduced to each watercraft to represent common scenarios of watercraft use, such as filling the livewell, spilling a bait bucket, recreational equipment pulled from the water, etc.



Watercraft A - 16 Foot Fishing Boat

Boat A was launched at the Bryant Lake Regional Park public boat launch on Bryant Lake in Eden Prairie, MN a total of 40 times between September 12-21, 2018. On each of the 40 launches, the boat was driven around the lake for up to 10 minutes. 3,785 mL was added to the bottom of the boat and 11,355 mL was added to the livewell each time while the boat was on the water. Upon trailering the boat, the main hull drain and livewell drain plugs were removed.

For trials 1-20, the residual water remaining in the livewell and in the bilge was quantified. For trials 21-40, the CD3 Station vacuum was used for up to 10 minutes per trial to remove as much of the residual water as possible. Use of the CD3 Station was done by both an AIS expert with experience using the CD3 Station vacuum (trials 21-30) and a non-expert volunteer who followed the posted instructions (trials 31-40). The remaining water in the livewell and bilge was then collected using a 100 mL plastic syringe and flex tubing, and then quantified.

Watercraft B - 18 Foot Fishing Boat

Boat B was launched at the Spring Park public boat launch on Lake Minnetonka in Spring Park, MN a total of 40 times between October 4-17, 2018. On each of the 40 launches, the boat was driven around the lake for up to 10 minutes. 3,785 mL was added to the bottom of the boat and 11,355 mL was added to the livewell each time while the boat was on the water. Upon trailering the boat, the main hull drain and livewell drain plugs were removed.

For trials 1-20, the residual water remaining in the livewell and in the bilge was quantified. For trials 21-40, the CD3 Station vacuum was used for up to 10 minutes per trial to remove as much of the residual water as possible. Use of the CD3 Station was done by both an AIS expert with experience using the CD3 Station vacuum (trials 21-30) and a non-expert volunteer who followed the posted instructions (trials 31-40). The remaining water in the livewell and bilge was then collected using a 100 mL plastic syringe and flex tubing, and then quantified.

Watercraft C - 20 Foot Ski Boat

Boat C was launched at the Spring Park public boat launch on Lake Minnetonka in Spring Park, MN a total of 20 times between September 26-27, 2018. On each of the 20 launches, the boat

was driven around the lake for up to 10 minutes. 3,785 mL was added to the bottom of the boat each time while the boat was on the water. There was no livewell in Boat C. Upon trailering the boat, the main hull drain plug was removed.

For trials 1-10, the residual water remaining in the bilge was quantified. For trials 11-20, the CD3 Station vacuum was used for up to 10 minutes per trial to remove as much of the residual water as possible. Use of the CD3 Station was only done by an AIS expert with experience using the CD3 Station vacuum. No volunteers were used for Boat C. The remaining water in the livewell and bilge was then collected using a 100 mL plastic syringe and flex tubing, and then quantified.

Results

Tables 1 and 2 summarize the results for the bilge and livewell areas, respectively. The amounts of residual water that could be removed from the bilge varied between boat type and operator. For example, Boat A (avg 35% water removal) had difficult to access floor compartments, while the bilge of Boat C (avg 100% water removal) was easy to access. In contrast, all or nearly all of the residual water could be removed from the livewells.

Table 1
Water Associated With Watercraft Bilges

	Bilge			
	Boat A	Boat B	Boat C	Average
Avg resid water after plugs pulled (mL)	631.4	1497.1	193.0	773.8
Std dev resid water after plugs pulled (mL)	521.6	94.2	30.2	215.3
Avg resid water removed, overall (%)	35.3	83.0	100.0	72.7
Avg resid water removed by expert (%)	51.7	89.3	100.0	80.3
Avg resid water removed by non-expert (%)	18.9	76.4	N/A	47.6

Table 2
Water Associated With Watercraft Livewells

	Livewell		
	Boat A	Boat B	Average
Avg resid water after plugs pulled (mL)	1578.9	810.8	1194.8
Std dev resid water after plugs pulled (mL)	575.8	220.7	398.2
Avg resid water removed, overall (%)	98.2	100.0	99.1
Avg resid water removed by expert (%)	100.0	100.0	100.0
Avg resid water removed by non-expert (%)	96.4	100.0	98.2

Conclusions

Despite compliance with standard drain plug regulations, residual water remained in all boat types and in all compartments examined; however, the risk of residual water was reduced by using the CD3 Station vacuum. More specifically, the bilge areas of the three boat types averaged 193-1497mL of residual water, but 19-100% of that water could be removed with the vacuum. The livewell areas for the two boat types averaged 810-1578mL of residual water, but 96.4-100% of the water could be removed with the vacuum. While not 100% effective for all boat types, this demonstrates potential value to reduce the risk of AIS spread between lakes by promoting a more extensive and comprehensive approach to water removal. Given the variability between boat types, extrapolation of these results to all boats is not advised.

It is important to note however that despite the use of the CD3 Station vacuum, there are compartments within the boat that remain difficult for water removal. Even the experienced AIS expert was unable to remove all of the residual water from the bilge compartments in two of the three boats used in the study. It is recommended that if water removal methods are being developed or considered for implementation, manufacturers and/or managers have a variety of vacuum sizes or attachments available to access hard-to-reach areas of the boat, to further reduce the risk of residual water moving overland. Furthermore, for all boat types, some amount of water was 'lost' and not recoverable. In other words, the percent of residual water removed only accounted for what could be accessed - there was additional water that could not be quantified and would remain a risk for overland transport regardless of the vacuum method used.

Use of the CD3 Station vacuum seemed practical for removal of reasonably easy-to-access residual water. While up to 10 minutes was allowed for using the CD3 station for each trial, less time was actually needed by the AIS expert and volunteers. There were differences in the amount of residual water removed between the AIS expert and untrained volunteers, with the AIS expert performing better or equal to the volunteers in all treatments. It is possible that the CD3 was challenging for first-time users; however, these results are confounded by the fact that they were unfamiliar with the boats. Regardless, these results emphasize the importance of education and clear instructions that address the wide range of boater experience.

This preliminary study suggests that the use of a vacuum to remove residual water may be an effective method for further reducing the risk of overland transport of residual water. The overall effectiveness of this approach is likely dependent on the accessibility of units like the CD3 Station, public awareness, and cooperation by relevant stakeholders to support proactive adoption by boaters. Further research is needed to better quantify the effectiveness of this approach with larger sample sizes, and additional boat designs and currently available tools for residual water removal.

Acknowledgments

We thank the the volunteers, coordinators and boat owners who contributed to the study, including Megan Weber, Dan Gutlovics, Matthew Wallin, Tamar Meyers, Ilona Rouda, Andrew

Baker, Jim Elkin, Bob Stancer, Kevin Zahler, and Your Boat Club. We also thank the MN DNR and CD3 for providing input into the study design.

Funding for this project was provided by generous donations to the Minnesota Aquatic Invasive Species Research Center.

This project was led by Chris Anderson and the report was reviewed by Dr. Nick Phelps.

November 22, 2018



Contact The Mound Fire Department
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Website Moundfire.com

FOR IMMEDIATE RELEASE
February 11, 2019

MOUND FIRE DEPARTMENT HAPPENINGS

Mound, MN, February 11, 2019– January was a busy month for the Mound Fire Department, although emergency callouts were a bit below normal. Our staff responded to 11 fire related calls and 31 medical related calls, for a total of 42 callouts for the month.

On Saturday, January 26th the Mound Fire staff participated in the Polar Plunge benefiting Minnesota Special Olympics held on Lake Minnetonka at Surfside Park. The day prior to the event the fire department staff cut the ice to make the 12' x 16' hole in the ice. This was quite a feat as the ice was 18- 20 inches thick. On the day of the event the firefighters provided EMS standby and had a team of 6 firefighters take the plunge. We also had a fund raising competition with our friends at the Orono Police Department to see who could raise the most money. The Mound Fire Team edged the cops by raising \$4,730.00 vs their \$4,114.00 with all donations going to the Minnesota Special Olympics. It was a great event for good cause, thanks to all that donated time and money.



Notable Events:

01-24-2019: On Thursday, January 24th at 23:58 hours the Mound Fire Department responded to a report of a house fire in the 1700 block of Resthaven Lane in Mound. Upon arrival, the Mound Fire Crews found flames were coming out of the roof. The home was under renovation, and no one was living at the residence. Due to the temperature at -9°, St Boni Fire was called in for mutual aid. Mound Fire Crews were on scene for 3 + hours. There were no injuries to firefighters or civilians.

Are your neighborhoods Fire Hydrants accessible!

Help us serve you better!



In winter, the deep snow can create a major problem with high piled snow around fire hydrants. The deep snow often makes it very difficult for firefighters to find the buried fire hydrants.

In an emergency we must have clearly marked and accessible fire hydrants. It normally takes a firefighter less than a minute to connect a large fire hose to a fire hydrant. If a fire hydrant is buried under a pile of snow, the time involved will likely double or even triple.

You can volunteer and help the fire departments response efficiency by clearing the snow from around the fire hydrants in your neighborhood. The Mound Fire Chief asks that you please take time to clear fire hydrants of snow in your neighborhood. Please help us keep them accessible throughout the winter so we can be much more efficient and timely in the event of an emergency!

If you are unable to clear the snow from a fire hydrant in your yard or your neighborhood....please call Vicki Weber at the Mound Fire Administrative office 952-472-3555 and we will arrange to clear the snow from the hydrant.

Thank you for your assistance!



If you would like more information about fire safety or fire prevention, please contact The Mound Fire Department Administrative Offices at 952-472-3555 or email at moundfire@moundfire.com.

14/c

2019 MOUND FIRE DEPARTMENT ACTIVITY REPORT
Emergency Response and Firefighter Hours Detail

MONTH: January

RECEIVED FEB 15 2019

City	Call Type	2019				2018			
		Month	Firefighter	YTD	YTD	Month	Firefighter	YTD	YTD
		Calls	Hours	Calls	Hours	Calls	Hours	Calls	Hours
MOUND	Fire	4	163	4	163	10	269	10	269
	Rescue	16	284	16	284	25	453	25	453
	Duty Officer	0	0	0	0	0	0	0	0
MINNETONKA BEACH <i>(for 2018 YTD Total Calls / Hours Reference)</i>	Fire					3	65	3	65
	Rescue					1	19	1	19
	Duty Officer					0	0	0	0
MINNETRISTA	Fire	1	17	1	17	4	88	4	88
	Rescue	7	139	7	139	1	21	1	21
	Duty Officer	1	1	1	1	0	0	0	0
SHOREWOOD	Fire	0	0	0	0	0	0	0	0
	Rescue	0	0	0	0	0	0	0	0
	Duty Officer	0	0	0	0	0	0	0	0
SPRING PARK	Fire	2	39	2	39	6	116	6	116
	Rescue	7	111	7	111	13	212	13	212
	Duty Officer	1	1	1	1	2	2	2	2
MUTUAL AID	Fire	3	74	3	74	2	60	2	60
	Rescue	0	0	0	0	0	0	0	0
STAND BY	Weather, Special Event, Etc.			0	0	0	0	0	0

Total Activity All Cities	Fire	10	293	10	293	25	598	25	598
	Rescue	30	534	30	534	40	705	40	705
	Duty Officer	2	2	2	2	2	2	2	2
	Stand By	0	0	0	0	0	0	0	0
	TOTAL	42	829	42	829	67	1305	67	1305

Monthly Activity by Call Category	2019	2018
COMMERCIAL	3	2
RESIDENTIAL	37	62
OTHER (OUTSIDE/ROADWAY/LAKE/OPEN AREA/MISC)	2	3
SERVICE CALLS (Smoke/CO Detectors)	1	6
LEGITIMATE FIRE ALARMS	2	5
FALSE FIRE ALARMS	1	4

MUTUAL AID AND TRAINING/MAINTENANCE SUMMARY	2019		2018	
	Month	YTD	Month	YTD
MUTUAL AID CALLS RECEIVED	1	1	0	0
MUTUAL AID CALLS GIVEN	3	3	2	2
TRAINING/MAINTENANCE HOURS	415	415	308.5	308.5

Mound Fire Department
Incident Reports - Spring Park
 January, 2019

FIRE NO.	DATE	CITY	ADDRESS	FIRE/ RESCUE	DESCRIPTION	ACTION TAKEN	FF HOURS
12	1/11/2019	Spring Park	2436 Black Lake Road	Fire	Fire - Structure	Ventilated	16
25	1/24/2019	Spring Park	24XX Interlachen Road	Fire	Alarm - Smoke	Burnt Food - Ventilated	23
Total Fire Calls				2	Total Fire Hours		39

11	1/8/2019	Spring Park	4527 Shoreline Drive, #127	Rescue	EMS	Cancelled enroute	11
14	1/13/2019	Spring Park	Shoreline Dr & Bayview Place	Rescue	PI Accident	Transported	25
21	1/21/2019	Spring Park	4527 Shoreline Drive	Rescue	EMS	Cancelled upon arrival	9
31	1/29/2019	Spring Park	4601 Shoreline Drive, #104	Rescue	EMS	No Transport	23
34	1/30/2019	Spring Park	4527 Shoreline Drive	Rescue	EMS	Cancelled upon arrival	11
39	1/31/2019	Spring Park	4601 Shoreline Drive	Rescue	EMS	No Transport	10
41	1/31/2019	Spring Park	4601 Shoreline Drive	Rescue	EMS	No Transport	22
Total Rescue Calls				7	Total Rescue Hours		111

35	1/30/2019	Spring Park	2400 Interlachen Road	Rescue	Stuck in Elevator	Cancelled enroute	1
Total Duty Officer Calls				1	Total Duty Officer Hours		1

TOTAL FIRE, RESCUE & DUTY OFFICER CALLS				10	TOTAL FIRE, RESCUE & DUTY OFFICER HOURS		151
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