

A G E N D A
WORK SESSION MEETING
City of Moberly
October 03, 2022
6:00 PM

Requests, Ordinances, and Miscellaneous

1. A Discussion Regarding A Contract With Spatial Networks, Inc., Maker Of Fulcrum, For Electronic GIS Based Work Order Management And Data Collection Software.
2. A Discussion Regarding An Agreement For Services Associated With Neptune Water Meters And Connected Equipment.
3. A Discussion Regarding A Scope Of Services Agreement With BARR Engineering For Professional Services.
4. A Request From The YMCA To Hold The 2022 Turkey Trot 5K On November 24, 2022.
5. Proposals From The Tourism Advisory Commission.
6. Discussion Of Rate Increase Proposed By Waste Management.

City of Moberly City Council Agenda Summary

Agenda Number: _____ WS #1.
 Department: Public Utilities
 Date: October 3, 2022

Agenda Item: A Discussion Regarding A Contract With Spatial Networks, Inc., Maker Of Fulcrum, For Electronic GIS Based Work Order Management And Data Collection Software.

Summary: The currently utilized software package is limited in its abilities and prevents Moberly staff from editing forms, adding new users and is limited to 5 users. The current, work order only system was purchased in 2017 for \$21,000, with annual support costs of around \$5,000. Fulcrum software allows for; 1) Customization of Apps by Moberly staff to tailor them for Moberly staff’s usage, 2) Collection of field data, 3) Photo attachment, 4) Triggered responses based upon data collected during use, 5) Email and text notifications to necessary staff, 6) Can be installed on any iOS or Android mobile device. Additionally, Moberly can grow the number of Apps (created by Moberly staff, think of these as tabs) as needed, for no additional cost, for distribution & collection, water meter verification and inventory, wastewater treatment and water treatment uses. Fulcrum offers significantly more functionality for the same price as our current software. Online training is free through webinars and virtual training sessions. The system can be fully integrated with current GIS data. For up to fifteen users the annual support for this functionality is \$5,400.00.

Recommended Action: Direct staff to provide a resolution for approval at the next scheduled council meeting.

Fund Name: Contracted Services

Account Number: 301.110.5406

Available Budget \$: 7,000.00

ATTACHMENTS:		Roll Call	Aye	Nay
___ Memo	___ Council Minutes	Mayor		
___ Staff Report	___ Proposed Ordinance	M___ S___ Jeffrey	___	___
___ Correspondence	___ Proposed Resolution	Council Member		
___ Bid Tabulation	___ Attorney’s Report	M___ S___ Brubaker	___	___
___ P/C Recommendation	___ Petition	M___ S___ Kimmons	___	___
___ P/C Minutes	___ Contract	M___ S___ Lucas	___	___
___ Application	___ Budget Amendment	M___ S___ Kyser	___	___
___ Citizen	___ Legal Notice			
___ Consultant Report	<u>x</u> Other <u>Agreement</u>		Passed	Failed



Order Form

Party Information

Spatial Networks, Inc. (SNI) – Maker of Fulcrum 360 Central Ave Ste 200 Saint Petersburg, FL 33701-3892 USA billing@fulcrumapp.com	Customer: City of Moberly Customer Address: , Entity Type/Jurisdiction:
--	--

Contact Information

SNI Contact

Customer Contact

Name: David Munitz
 Title: Account Executive
 Email: david.munitz@fulcrumapp.com
 Phone: (727) 538-0545 x 847

Name: Steve Wilson
 Title: Utilities Ops Coordinator
 Email: swilson@cityofmoberly.com
 Phone: 660 269 7671

Terms

Duration of Initial and Renewal Order Term: 12 months
 Customer paying fees by credit card:

Billing Cycle: Annual
 Commitment Period: Sep 19, 2022-Sep 18, 2023

Products

PRODUCT CODE	PRODUCT NAME	QTY	UNIT NET PRICE	TOTAL PRICE
C-S-FU-PR-12m	Fulcrum Professional 12 Month Subscription	15.00	\$30.00	\$450.00

Total Subscription Fees: \$5,400.00

Business Terms

Fulcrum Subscription: Customer may request an increase to the number of User licenses for any Product by providing notice to SNI (which may be by email), and SNI will invoice Customer for additional User licenses pro-rated for the remainder of the billing cycle.

Order Term: This Order is effective during the Order Term. This Order automatically renews for successive periods, each equal in length to the Duration of Renewal Order Term set forth above, unless either Party provides notice of non-renewal at least thirty (30) days before the then-current expiration of the Order Term.

Fees: Fees are non-refundable. SNI may increase the Fees for any Renewal Order Term by providing notice to Customer at least sixty (60) days before the first day of such Renewal Term. Fees do not include taxes.

Irrevocable Order: By executing this Order, Customer agrees to pay Subscription Fees for the Initial Order Term, Renewal Order Term or Add-On Order Term, as applicable. In the event that Customer fails to pay any Fees when due, SNI may suspend the provision of Services until Customer has paid all past-due Fees.

THIS ORDER IS SUBJECT TO SNI'S TERMS AND CONDITIONS THAT ARE AVAILABLE AT [HTTPS://WWW.FULCRUMAPP.COM/TERMS-OF-SERVICE](https://www.fulcrumapp.com/terms-of-service) OR, IF APPLICABLE, CUSTOMER'S LICENSE AGREEMENT.

This Fulcrum Order and Software as a Service Agreement is hereby accepted and agreed to by SNI and Customer, effective as of the Effective Date.

Spatial Networks, Inc.

City of Moberly

Signature _____

Signature _____

Name/Title _____

Name/Title Steve Wilson

City of Moberly City Council Agenda Summary

Agenda Number: _____ WS #2.
 Department: Public Utilities
 Date: October 3, 2022

Agenda Item: A Discussion Regarding An Agreement For Services Associated With Neptune Water Meters And Connected Equipment.

Summary: Moberly Utilities is seeking to purchase a maintenance agreement with Neptune (dba Schulte Supply Inc.) in addition to the existing support agreement for meter system services. As part of this service agreement, the City of Moberly gains field service O&M for meter reading units, six of which are located in various antenna sites within Moberly. These units are above ground, out of reach of Moberly staff, with unique electronic components that require service, repairs, troubleshooting and replacements in order for the water meter reading to take place. During periods of unit failures, water meters in the affected area cannot be read remotely and must be visited individually to collect each read. This agreement sets the terms, fees and service deliverables during periods of unit failures. This is similar to existing emergency generator service contracts, and the online instruments service contract used at both the WTP & WWTP.

Annual support costs are based upon # of units and a background annual service fee of \$16,434.52. Combined, annual service for the system for the year 2023 will be \$33,144.53.

Recommended

Action: Direct staff to develop a resolution for the next scheduled council meeting.

Fund Name: Data Processing, Utilities Administration

Account Number: 301.110.5403

Available Budget \$: 35,000.00

ATTACHMENTS:		Roll Call	Aye	Nay
<input type="checkbox"/> Memo	<input type="checkbox"/> Council Minutes	Mayor		
<input type="checkbox"/> Staff Report	<input type="checkbox"/> Proposed Ordinance	M___ S___ Jeffrey	___	___
<input type="checkbox"/> Correspondence	<input type="checkbox"/> Proposed Resolution			
<input type="checkbox"/> Bid Tabulation	<input type="checkbox"/> Attorney's Report	Council Member		
<input type="checkbox"/> P/C Recommendation	<input type="checkbox"/> Petition	M___ S___ Brubaker	___	___
<input type="checkbox"/> P/C Minutes	<input type="checkbox"/> Contract	M___ S___ Kimmons	___	___
<input type="checkbox"/> Application	<input type="checkbox"/> Budget Amendment	M___ S___ Lucas	___	___
<input type="checkbox"/> Citizen	<input type="checkbox"/> Legal Notice	M___ S___ Kyser	___	___
<input type="checkbox"/> Consultant Report	<input checked="" type="checkbox"/> Other <u>Invoice</u>		Passed	Failed



Invoice

WS #2.

PO Box 388
 Edwardsville IL 62025
 618-656-8383 Fax 618-656-8750

INVOICE DATE	INVOICE NUMBER
08/29/22	S1188033.002
REMIT TO: Schulte Supply Inc. PO Box 388 Edwardsville IL 62025	
PAGE NO. 1	

BILL TO:
 City of Moberly, MO
 101 West Reed St.
 Moberly, MO 65270

SHIP TO:
 City of Moberly, MO
 101 West Reed St.
 Moberly, MO 65270

CUSTOMER NUMBER	CUSTOMER ORDER NUMBER	RELEASE NUMBER	SALESPERSON		
1549	QUO-150020-N8K9F3		Rich Graczyk		
WRITER	SHIP VIA	TERMS	SHIP DATE	ORDER DATE	
Lisa Zoekler	BW BEST WAY	NET 30 DAYS	08/29/22	07/11/22	
DESCRIPTION	ORDER QTY	SHIP QTY	Net PPS	Ext PPS	
^13812-202 AMI Neptune 360 Advanced Platform Annual Subscription for 5001-10,000 Services Start Date: 11-1-22 End Date: 10-31-23 QUO-150020-N8K9F3 Please reference S1188033 with payment. ** Nonstock item **	5,443	5,443	3.070	16710.01	
^13727-001 Annual Maint Contracts R900 Gateway D Collector Serial # GPV401986 ** Nonstock item **	1	1	1999.920	1999.92	
^13727-001 Annual Maint Contracts R900 Gateway D Collector Serial # GPV401995 ** Nonstock item **	1	1	1999.920	1999.92	
^13727-001 Annual Maint Contracts R900 Gateway D Collector Serial # GPV401998 ** Nonstock item **	1	1	1999.920	1999.92	
^13727-001 Annual Maint Contracts R900 Gateway D Collector	1	1	1999.920	1999.92	



Invoice

WS #2.

PO Box 388
 Edwardsville IL 62025
 618-656-8383 Fax 618-656-8750

INVOICE DATE	INVOICE NUMBER
08/29/22	S1188033.002
REMIT TO: Schulte Supply Inc. PO Box 388 Edwardsville IL 62025	
	PAGE NO. 2

BILL TO:
 City of Moberly, MO
 101 West Reed St.
 Moberly, MO 65270

SHIP TO:
 City of Moberly, MO
 101 West Reed St.
 Moberly, MO 65270

CUSTOMER NUMBER	CUSTOMER ORDER NUMBER	RELEASE NUMBER	SALESPERSON		
1549	QUO-150020-N8K9F3		Rich Graczyk		
WRITER	SHIP VIA	TERMS	SHIP DATE	ORDER DATE	
Lisa Zoekler	BW BEST WAY	NET 30 DAYS	08/29/22	07/11/22	
DESCRIPTION	ORDER QTY	SHIP QTY	Net PPS	Ext PPS	
Serial # GPV402000 ** Nonstock item ** ^13727-001 Annual Maint Contracts R900 Gateway D Collector	1	1	1999.920	1999.92	
Serial # GPV402006 ** Nonstock item ** ^13727-001 Annual Maint Contracts R900 Gateway D Collector	1	1	1999.920	1999.92	
Serial # GPV402018 ** Nonstock item ** ^Maintenance: 13721-005 N_Sight Mobile Hardware Annual Maintenance for MRX-920 Mobile Serial #MRX401156	1	1	2995.000	2995.00	
** Nonstock item ** ^Maintenance: 13721-008 13721-101 N_Sight Mobile Hardware Annual Maintance for R900 Belt Clip Serial # BC301599	1	1	720.000	720.00	
** Nonstock item ** ^Maintenance: 13721-008 13721-101 N_Sight Mobile Hardware Annual Maintance for R900 Belt Clip Serial # BC301917	1	1	720.000	720.00	
Subscription required; Hardware Maintenance Optional; Please reference any hardware serial					



Invoice

WS #2.

PO Box 388
 Edwardsville IL 62025
 618-656-8383 Fax 618-656-8750

INVOICE DATE	INVOICE NUMBER
08/29/22	S1188033.002
REMIT TO: Schulte Supply Inc. PO Box 388 Edwardsville IL 62025	PAGE NO. 3

BILL TO:
 City of Moberly, MO
 101 West Reed St.
 Moberly, MO 65270

SHIP TO:
 City of Moberly, MO
 101 West Reed St.
 Moberly, MO 65270

CUSTOMER NUMBER	CUSTOMER ORDER NUMBER	RELEASE NUMBER	SALESPERSON
1549	QUO-150020-N8K9F3		Rich Graczyk

WRITER	SHIP VIA	TERMS	SHIP DATE	ORDER DATE
Lisa Zoekler	BW BEST WAY	NET 30 DAYS	08/29/22	07/11/22

DESCRIPTION	ORDER QTY	SHIP QTY	Net Pric	Ext Pric
numbers with payment information.				
On credit card purchases only, there will be a 3% convenience fee added for all invoices over \$5,000.00 or invoices paid after the invoice date.				

Subtotal	33144.53
S&H CHGS	0.00
Sales Tax	0.00
Amount Due	33144.53

Invoice is due by 09/29/22.

All claims for shortage or errors must be made at once. Returns require written authorization and are subject to handling charges. Special orders are non-returnable. Past due invoices may be subject to 1.50% late charge.



A NEPTUNE TECHNOLOGY GROUP WARRANTY STATEMENT

R900® Gateway

WARRANTY

The warranty on the R900 Gateway data collector system components is 12 months from shipment date. Warranty services provided during warranty period are:

- For a unit defective in materials or workmanship, free repair (including parts and labor), or at Neptune's discretion, replacement of the defective unit
- Return shipment of repaired product via pre-paid ground service
- Toll-free assistance at Customer Support 1-800-647-4832
- These services are purchaser's exclusive remedy for warranty issues
- Repair turnaround time of 10 working days, excluding transit time

NOT INCLUDED IN THE WARRANTY

- Accessories and peripherals including battery, cables, USB thumb drives, UPS or other back up power supplies, antennas, etc.
- Equipment damaged by abuse or negligence, or environmental damage as a fault of fires and storms
- Firmware modifications
- Priority Overnight return shipment of repaired units

EXTENDED MAINTENANCE ENTITLEMENT

Maintenance entitlement is available from your authorized Neptune Sales representative. Maintenance entitlement during the extended period include:

- Free repair of unit, including parts and labor
- Return shipment of repaired product is pre-paid ground service
- Free inspection and preventative maintenance
- Repair turnaround time of 10 working days, excluding transit time
- Toll-free assistance at Customer Support 1-800-647-4832

NOT INCLUDED IN EXTENDED MAINTENANCE ENTITLEMENT

- Accessories and peripherals including battery, cables, USB thumb drives, UPS or other back up power supplies, antennas, etc.
- Equipment damaged by abuse or negligence or environmental damage as a result of fires and storms
- Firmware modifications
- Priority Overnight return shipment of repaired units
- Neptune disclaims any implied warranties, including the implied warranties of merchantability and fitness for a particular purpose

REPAIR NOTES

A Return Material Authorization (RMA) number MUST accompany all incoming repairs. This RMA number may be obtained by contacting Customer Support at support@neptunetg.com or 1-800-647-4832.

- Customer pays all incoming shipment charges
- All outgoing repairs are shipped ground service
- Requested Priority Overnight return shipment is paid by the customer



- Repair warranty is 90 days from shipment date
- Warranty and maintenance contract repair turnaround time of 10 working days, excluding transit time
- Non-warranty and non-maintenance contract repair turnaround time of 20 working days, excluding transit time

NEPTUNE DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

City of Moberly City Council Agenda Summary

Agenda Number: _____ WS #3.

Department: Public Utilities

Date: October 3, 2022

Agenda Item: A Discussion Regarding A Scope Of Services Agreement With BARR Engineering For Professional Services.

Summary: The City of Moberly will be applying for up to \$162,000 of stormwater grant funding from MoDNR as part of Clean Water Act Section 319 Grant funding for the Nine Element Watershed Plan and part of Moberly’s overall effort to allow future improvements to follow a prescribed, prioritized planning methodology. This water quality planning will evaluate non-point-sources of pollution and their impacts to the respective watersheds and is an opportunity to receive over 30% funding up to \$162,000 towards the project, which is estimated, in 2022 dollars, to cost \$444,000. This Scope of Services for engineering work is proposed at \$444,000. Receipt of the 319 Grant funding will reduce the overall investment to less than \$300,000. The 2023 through 2025 CIP budget plan lists \$485,000 for stormwater planning for both this 9 Element Watershed Plan and Barr’s contribution to Moberly’s Integrated Management Plan covering both Stormwater and Wastewater, required by Moberly’s commitment to MoDNR in 2018.

Recommended

Action: Direct staff to develop a resolution for the next regular council meeting.

Fund Name: Public Utilities Operations—Stormwater Department

Account Number: 301.115.5502

Available Budget \$: To be transferred from operating reserve fund.

ATTACHMENTS:		Roll Call	Aye	Nay
<input type="checkbox"/> Memo	<input type="checkbox"/> Council Minutes	Mayor		
<input type="checkbox"/> Staff Report	<input type="checkbox"/> Proposed Ordinance	M__ S__ Jeffrey	___	___
<input checked="" type="checkbox"/> Correspondence	<input type="checkbox"/> Proposed Resolution	Council Member		
<input type="checkbox"/> Bid Tabulation	<input type="checkbox"/> Attorney’s Report	M__ S__ Brubaker	___	___
<input type="checkbox"/> P/C Recommendation	<input type="checkbox"/> Petition	M__ S__ Kimmons	___	___
<input type="checkbox"/> P/C Minutes	<input type="checkbox"/> Contract	M__ S__ Lucas	___	___
<input type="checkbox"/> Application	<input type="checkbox"/> Budget Amendment	M__ S__ Kyser	___	___
<input type="checkbox"/> Citizen	<input type="checkbox"/> Legal Notice			
<input type="checkbox"/> Consultant Report	<input checked="" type="checkbox"/> Other <u>Add'l Information</u>		Passed	Failed



Proposal to develop an
**integrated stormwater master plan
and Section 319 watershed plan**



Prepared for the
City of Moberly, Missouri

Contents

Project understanding 1

Scope of services: stormwater master plan 2

Scope of services: nine-element watershed plan 9

Proposed budget..... 11

Project team..... 12

Project descriptions 15

Attachment A: Schedule graphic

Project understanding

The city of Moberly has historically had concerns and challenges with stormwater, including localized flooding. Periodic high water in certain areas has stressed and compromised property, buildings, and infrastructure such as roads and waterways. Therefore, the City plans to conduct a comprehensive evaluation of stormwater flows to identify areas that are most impacted by inundation and flooding during certain precipitation events. To achieve these goals, the City plans to:

- Evaluate the impacts of stormwater runoff on the water quality in certain drainage areas
- Assess non-point-sources of pollution to identify opportunities for reducing pollutants in surface-water bodies
- Identify locations for future projects that could mitigate stormwater flows and reduce pollutant loads

Overview of scope

Barr has already assisted Moberly with a smaller-scale stormwater evaluation and plan on the southwest side of the City (Seven Bridges Road area) and is currently doing the same on the southeast side. We will combine the previous evaluation work with this proposed comprehensive review to develop a stormwater master plan the City can use to prioritize projects and assess ways to approach future development and redevelopment.

Barr will also help Moberly apply for grant funding to prepare a watershed plan covering a portion of the city. The plan will help staff (1) evaluate non-point sources of pollution and their impacts and (2) propose projects aimed at reducing pollutant impacts and improving water quality in selected water bodies that are either impaired or under threat of becoming impaired.

The scope of services Barr is presenting to the City includes:

- Developing a city-wide watershed-based hydraulic and hydrologic (H&H) model relative to a defined series of precipitation events
- Using data and modeling to identify critical areas for improvements
- Defining potential projects in critical areas
- Applying for grant (cost-share) funding to conduct water quality planning
- Integrating the water-quality and H&H evaluation into a comprehensive stormwater master plan
- Assisting the City with prioritization of projects in critical areas

Scope of services: stormwater master plan

Barr will conduct a city-wide stormwater review to create a comprehensive master plan for Moberly to use in prioritizing projects and approaching future development and redevelopment. Preparing the plan will involve the tasks described below.

Task 1. Meet with the City

Barr will schedule and hold an initial project-kickoff meeting, followed by biweekly project meetings aligned with key project milestones, as indicated in the tasks below. Biweekly project meetings will also serve as opportunities to request your input on relevant tasks. Because planning is an iterative process, routine communication is critical to developing a plan that meets the City's needs. Our scope assumes that video or audio-only meetings will be held via Teams, with the exception of one or two in-person meetings (if needed) with City leadership.

Task 2. Review data and documents

Following the kickoff meeting, Barr will review Moberly's ordinances, storm sewer files, maintenance records, and other pertinent information you share with us. In addition, we'll gather and compile information and knowledge of existing regulatory documents, the City's goals and actions, current data sets, and emerging issues. Finally, we'll generate a list of critical data gaps, required updates, and information needs and request your direction and input.

Then, Barr will review the existing water-quantity models and available data from the City and Randolph County, including lidar and other topographic data; storm sewer data (size, location, make, pipe inverts, catch basins, and catch-basin inverts of relevant pipes and surface drainage-ways, etc.); combined sewer overflow (CSO) system data; and a street GIS overlay. Using existing data, we'll review Moberly's existing stormwater ponds to identify the appropriate parameters to use for water-quality and hydraulic modeling of each pond. We'll also identify areas in the city where subwatershed boundaries need to be modified or developed, as well as any gaps in the storm sewer information required for creating hydrologic, hydraulic, and/or water quality models.

If additional pipe data or topographic information is needed, Barr understands that the City may collect the data itself to conserve resources. If you'd like assistance with this task, however, Barr has professionals who can collect field data. The scope of services in this proposal assumes up to 40 hours for Barr to conduct data collection in the field.

Deliverables

- Agendas and notes for virtual coordination meetings
- Memorandum summarizing data gaps and need for additional information
- List of locations that require field verification to resolve data gaps
- Tabular summary of known and potential gaps for the plan document

Task 3. Perform modeling and data analysis

Hydrology and hydraulics

Accurately estimating water movement throughout the city's stormwater system is necessary for protecting the community and its resources from flooding and other negative impacts. Using PCSWMM software, Barr will develop a detailed H&H model of the stormwater system to approximately a "catch basin cluster" scale within the city's municipal boundary. Where appropriate, the model will simulate smaller subwatershed areas. As necessary for defining boundary conditions, larger watershed areas outside the municipal boundary will be included in the model. We recently used similar modeling methodology to complete Moberly's Seven Bridges Road flood study and are currently using the same approach for the City's Southeast Development Area project.

Barr will determine H&H parameters based on the best available data. To delineate subwatersheds with a high level of detail, we'll use ArcMap's Spatial Analyst features or similar tools, in conjunction with lidar data. Lidar LAS ("LASer," or lidar data-exchange file) data and building-outline data (if available) will be downloaded and used in conjunction with storm-sewer-pipe data to develop a hydrologically corrected elevation surface.

Barr will calculate area-weighted soil-infiltration parameters based on the most recent SSURGO (Soil Survey Geographic Database) soil maps; use record drawings provided by the City to calculate stage-storage curves for constructed ponds; and use lidar topographic data to calculate stage-storage curves for other natural or constructed storage areas. We understand that the City has storm sewer data available in GIS format. Where possible, we'll preserve the City's stormwater facility identifiers in PCSWMM. We will identify locations where surcharging manholes or overflowing ponds result in surface flows, and route those flows downstream by using aerial photos and lidar information to create appropriate surface flow paths.

If possible, we will attempt to validate the existing-conditions model with information the City may be able to provide, such as rainfall information, surveyed drift lines after a flooding event has subsided, or aerial or other photos taken during events that show the extent of flooding at a given moment in time. Although this scope of work does not include model calibration, if the City has appropriate flow- or level-monitoring data, we can offer model calibration as an optional task.

Model calibration would require continuous level or flow data to be collected at one or more sites in the city. Using publicly available Next Generation Weather Radar (NEXRAD) collected by the National Oceanic and Atmospheric Administration, we would attempt to calibrate the PCSWMM model to up to three precipitation events by implementing hydraulic and/or hydrologic updates.

Following model development, we will simulate the Atlas 14 2-, 10-, and 100-year 24-hour "design" storm events, identify surcharging manholes and overflowing ponds for each design storm, and use GIS to create polygons delineating inundation areas for each event. In addition, we'll tabulate peak pond elevations for inclusion in the master plan. Finally, we'll meet with City staff to discuss the modeling results and methodology. The model will allow evaluation of storm sewer capacity and adequacy as development and redevelopment take place in the city.

In parallel with updating the master plan, Barr will develop the PCSWMM model, incorporating water-quantity modeling results into a discussion of issues and management recommendations. Modeling results, issues, and management recommendations may lead to the identification of stormwater projects for inclusion in the implementation program.

Deliverables

- Agendas and notes for virtual coordination meetings
- Presentation of preliminary model results at one virtual or in-person city council meeting or workshop
- GIS files, including updated storm-sewer maps and 2-, 10-, and 100-year inundation extents
- PCSWMM model files
- *Optional:* Model documentation in the form of a technical memorandum

Water quality

Understanding the current level of water quality treatment in the city is critical for stormwater management planning and meeting regulatory requirements. This component of the plan will be part of the nine-element watershed plan, as described in sections below.

Using the subwatersheds delineated as part of the H&H PCSWMM modeling, Barr will work with City staff to identify water quality practices that require additional watershed subdivisions, merging watersheds to simplify the model where possible. We will use record drawings if needed to create stage-storage curves below the normal water elevation for stormwater ponds. Using PCSWMM, we'll develop rating curves for complex pond-outlet structures.

Barr recommends that the water-quality model P8 be used for simulating the complex storm-sewer networks in Moberly. We have extensive experience developing and using P8 models to perform watershed assessments. Although this scope of work does not include model calibration, if the City has appropriate water-quality monitoring data, we could perform model calibration as an optional task.

Model calibration would require composite samples and continuous flow data to be collected at one or more sites. We would calibrate by first comparing the total volumes of the model and the observed data for selected precipitation events during the period of record. After calibrating the model to flow data, we would compare the event mean concentrations of total suspended solids and total phosphorus to selected composite samples. Example calibration parameters would include pervious curve number, runoff coefficient, time of concentration, particle scale factors, particle fractions, etc.

After developing the P8 model, we'll use it to simulate historical climate data and tabulate (1) the projected annual removal rates of pollutants applicable to existing ponds and other water quality practices and (2) the annual loading of those pollutants to the receiving water bodies. The model will also be capable of simulating loading from future development and redevelopment areas, if the City wants to add that optional task.

Barr will conduct water quality modeling and H&H modeling while developing the master plan and incorporate the water quality modeling results into the discussion of issues and management recommendations in the plan. Model results may also inform development of water-quality-management policies, goals, and/or best practices.

Deliverables

- Agendas and notes for virtual coordination meetings
- GIS files
- P8 model files
- *Optional:* Model documentation in the form of a technical memorandum

Task 4. Create prioritization framework for critical areas

This task includes developing a prioritization framework or other method of addressing flood-prone areas identified by the updated stormwater models. Barr will meet with the City to identify parameters or situations that should be considered when prioritizing flood-risk areas and discuss an approach for scoring or weighting each parameter. Considering multiple parameters allows for identification of possible multifaceted mitigation measures to address potentially flood-prone areas. Such measures may also have benefits like reducing the potential for downstream creek erosion, minimizing adverse impacts, and improving water quality.

The final parameters will be selected by City staff, but example scenarios include a flood-risk area that:

1. Contains multiple structures, meaning that mitigating flood risk could reduce downstream flood levels.
2. Includes structures or road crossings that would also be inundated during a 10-year event (or smaller and/or more frequent events).
3. Is immediately adjacent to a planned City construction or reconstruction project (within the zone of expected disturbance for utility maintenance, a street reconstruction, a park project, etc.).
4. Is in a part of the city that is being, or soon will be, redeveloped, according to the City's comprehensive plan.
5. Drains to a priority water body (meaning the project could have a water quality element as well as address a flooding concern). Priority water bodies would be defined by City staff.
6. Is of interest to potential partners.
7. Impacts an emergency evacuation route (more than # inches of inundation, defined by City staff).
8. Impacts a non-emergency, non-evacuation route (more than # feet of inundation, defined by City staff).
9. Affects vulnerable infrastructure (pipes at locations defined as key by City staff, as well as nursing homes, hospitals, police stations, fire stations, schools, city hall, and other public structures determined by the City as being of high value). The prioritization methodology would contain the type and number of affected vulnerable structures.

10. Affects residential structures (not including outbuildings or garages) and/or commercial structures. Scoring could involve summing the total number of affected structures in four categories):
 - a. Residential: number of impacted homes
 - b. Residential: number of impacted apartments
 - c. Commercial: number of impacted buildings
11. Is in an area that falls within the upper two quartiles of the City's social vulnerability index.

Depth of flooding could also be worked into the weighting parameters and could be scored on a scale. If the City selects some of the parameters in the list above, it will need to provide source data in GIS format. Work on this task would begin as soon as Barr received the required data. We assume that (1) aside from inundation areas, we will not develop new information needed to prioritize flood-risk areas and (2) to contain costs, the City will select no more than six parameters for the prioritization criteria.

For each flood-risk area, Barr will determine whether each parameter selected by City staff applies to each flood-risk area. Each area will be entered into a spreadsheet or database and ranked based on the parameters and scoring agreed on during our first meeting with the City. In a second meeting with City staff, we will review the initial prioritized list and identify flood-risk areas for further evaluation.

Deliverables

- Prioritized list of flood-prone areas
- GIS files

Task 5. Develop concept-level project list and schedule

Barr will meet with you (1) to specify implementation tasks for addressing the problems identified through modeling tasks and to determine content for the plan, and (2) to document the process and factors the City used to prioritize issues.

We will also develop a 10-year implementation table that includes the projects, activities, and programs that will address the your stormwater management issues and needs. The activities described in the City's NPDES MS4 permit will be incorporated by reference. The implementation table will include, to the extent known or reasonably estimated, the:

- Issues to be addressed
- Years of implementation
- Preliminary cost estimates
- Cooperators and/or partners
- Funding sources

After preliminary modeling results are available and updates have been made to the master plan's inventory and maintenance sections (because those tasks will likely identify implementation items), Barr will work with City staff to incorporate operations and programs (such as a transportation or pavement development program).

Deliverables

- 10-year project implementation table

Task 6. Estimate costs and identify financial-assistance options

Barr will develop preliminary cost estimates for implementing the stormwater master plan based on the prioritized projects and 10-year implementation table. The City will direct us to use one of the following cost-estimation approaches:

1. **Estimate the cost of a single project** and multiply it by the number of proposed projects. This would give the City an estimate of the total cost for immediate stormwater management projects while offering flexibility in managing budgets and shifting money according to project needs.
2. **Cost out each individual project.** This approach would give the City a better estimate of the actual cost of each project; however, it would be more time-intensive, cost more, and limit flexibility in managing the overall budget. We can also offer a hybrid of this option blended with the above approach.

In addition, we'll identify potential sources of financial assistance for offsetting some of the implementation costs. For each option, we'll provide the source, the potential amount of financial assistance, and a short description of the specific type of project the funds would apply to.

Deliverables

- Cost estimate table
- List of potential financial-assistance options

Task 7. Develop plan document

The final step in developing the stormwater master plan will be compiling all the components above into a single document that the City can use to implement stormwater improvements. The plan will also explain any regulatory drivers or requirements for each component, if applicable. We anticipate a general document structure that includes:

- Introduction
- Background
- Issue identification
- Public-engagement strategies
- Modeling assessment
- Prioritization framework

When Barr has completed the first draft of the plan, we'll submit it to you for review and then meet with you to discuss the draft, answer any questions, and receive feedback. After receiving your input, we will revise the draft plan and send you a second draft for final review. Once the City is satisfied with the draft, Barr will prepare the final plan and provide it to Moberly in both PDF and printed form, including oversized figures on request.

Deliverables

- Two drafts of the master plan
- A final comprehensive stormwater master plan

Scope of services: nine-element watershed plan

Barr will assist the City in applying for Clean Water Act Section 319 grant funds from the Missouri Department of Natural Resources to develop a “nine-element” watershed plan covering a portion of the city of Moberly. The water-quality-focused plan will evaluate non-point-sources of pollution and their impacts, and that evaluation will in turn inform projects proposed to reduce pollutant impacts and improve the quality of selected water bodies that are either impaired or under threat of becoming impaired.

We’ll provide this watershed-based plan to the City as a deliverable that, although integrated into your overall stormwater master plan, can be submitted as a stand-alone document when applying for a 319 grant. For efficiency and economy, we’ll integrate the schedule of tasks for the nine-element plan with those for the stormwater master plan. To aid City staff in understanding the timing and relationship of the tasks, we will develop a graphic that lays out the components of both plans and shows how the tasks will progress on parallel timelines. A preliminary draft of the timeline appears in **Attachment A**.

The tasks below outline our approach to developing Moberly’s nine-element plan.

Task 1. Select HUC-12 subwatershed

Barr will assist the City in pursuing 319 grant funding from MoDNR to prepare a nine-element watershed plan. A nine-element plan is a prerequisite for applying for additional Section 319 grants for implementing projects to reduce non-point-source pollution. Grants require a 40% match requirement from the local sponsor (in this case, the City), which can include nonfederal funds and work-in-kind contributions.

Non-point-source runoff from Moberly flows into three HUC-12 watersheds, but 319 grants are typically limited to projects in a single HUC-12 area. Barr will walk the City through the process of selecting one watershed by focusing on two primary questions:

- Does the watershed have at least one of the following?
 - Impaired water body
 - Water body suspected of being impaired
 - Water body trending toward impairment
 - Surface drinking-water supply influenced by non-point-source runoff (need for source-water protection)
- Is there potential for implementable projects that would improve water quality while helping the City meet its stormwater goals? (Note that 319 funds cannot be used for activities that directly implement the requirements of an MS4 permit.)

Task 2. Establish and work with partners

After the City has selected a watershed to benefit from 319 funding, Barr can assist you in identifying partners such as local, state, or federal government agencies (for example, Randolph County, the Soil and Water Conservation District, Missouri Department of Conservation, and Natural Resource Conservation Service); watershed groups; stream teams; private landowners; and nonprofit conservation entities. Under the grant program, partners are expected to work together to plan and implement practices on a watershed scale to achieve measurable water-quality benefits, and Barr can help you with that process.

Grant application

Barr will help the City complete the application form, found at <https://dnr.mo.gov/document-search/watershed-based-planning-grant-application-form-mo-780-2123>. We'll serve as your liaison with MoDNR to help ensure that you meet grant requirements and to provide communications as needed during the course of the project.

Nine-element plan

Barr will work with the City to develop a plan containing nine components:

1. **Causes and sources of pollution:** Identify the watershed's water quality problems and threats; map and identify sources and causes of pollution
2. **Load reductions:** Estimate the non-point-source pollutant-load reductions from each source or cause needed to meet water quality goals; use models appropriate to the amount and complexity of the data
3. **Non-point-source pollution-management measures:** Describe the best management practices (BMPs) needed to achieve the estimated load reductions; map BMP locations
4. **Technical and financial assistance:** Quantify the technical and financial resources needed to implement BMPs; provide realistic estimates of funding and the potential sources; identify partners and document their commitment to participate
5. **Information and outreach:** Identify stakeholders and gatekeepers; develop plans to inform, educate, and gain support where necessary; provide educational opportunities for the public
6. **Schedule:** Develop a reasonable timeline for implementing BMPs and outreach programs
7. **Milestones:** Establish interim measurable milestones that will demonstrate stepwise plan implementation according to schedule that leads to attainment of the plan's water quality goals
8. **Performance criteria:** Create criteria to measure progress made towards the plan's load reductions and water quality goals
9. **Monitoring:** Develop a monitoring program for collecting data to assess against performance criteria

Deliverables

- A draft nine-element watershed plan for the City's review
- A final nine-element watershed plan to be submitted to the U.S. Environmental Protection Agency and MoDNR for review and approval

Proposed budget

Task	Cost
Stormwater management plan (excluding options)	\$201,000
Nine-element watershed plan	\$243,000
Estimated agency cost-share of nine-element plan (grant)	(\$162,000)
Total cost to City for both plans	\$282,000
Reserve 10% contingency	\$ 28,000
Total estimated budget	\$310,000

Costs assume approximately \$87,000 in modeling costs will overlap between the two plans as proposed

Project team

Below are profiles summarizing the experience and qualifications of each proposed team member, many of whom are familiar to City of Moberly staff. We would be glad to provide full resumes on request.



Principal in charge

ROB MORRISON, PE*

Vice President, Senior Water Resources Engineer
BS, Petroleum Engineering

Rob has 35 years of experience in the areas of water resources and environmental engineering. His background encompasses water permitting, water quality science, total maximum daily load (TMDL) studies, antidegradation procedures, and compliance assistance. He has also managed and overseen several projects involving stormwater planning and infrastructure. Before joining Barr, Rob worked at MoDNR, where he led the water-pollution control branch.

**Missouri*



Project manager

ANDREA COLLIER, PE*

Senior Environmental Engineer
BS, Chemical Engineering

Andrea has nearly 20 years of experience. Her areas of expertise include stormwater and MS4 permitting and compliance; water quality science; pollution control; and stormwater systems. Over the last 15 years she's managed projects for clients including municipalities, utilities, water commissions, regulatory agencies, environmental organizations, and regional planning committees. Before joining Barr, she served as deputy director of the Missouri Geological Survey, as well as director of the MoDNR's Water Resources Center.

**Missouri*



Grant writer and agency liaison

ED GALBRAITH

Senior Environmental Consultant
BS, Agriculture

Ed has 30 years of experience with environmental regulation and consulting. Eight of those years have been spent in private consulting, assisting clients with permitting and regulatory challenges involving stormwater management and planning, regulatory compliance, wastewater, and environmental assessment and review.

Ed's career also includes four years serving as director of the MoDNR's Division of Environmental Quality, where he oversaw all aspects of the state's environmental regulatory programs governing the quality of air, water, and soil, as well as water infrastructure funding.



Senior advisor

BRANDON BARNES, PE*
Water Resources Engineer
BS, Civil Engineering

Brandon has 15 years of experience assisting water management organizations, cities, and state and federal agencies with projects involving water resources. He develops detailed H&H and water quality models; designs water quality BMPs and modifications to storm sewer systems; prepares planning documents and management plans; develops drawings and specifications; assists with stormwater permitting; analyzes interior drainage; and observes construction activities. Brandon has created one- and two-dimensional XPSWMM models for dozens of stormwater-management, drainage, flood-protection, floodplain, and watershed-improvement projects. He enjoys evaluating existing municipal systems and researching and applying modifications and management strategies to improve system performance.

**Minnesota*



Plan writer

LOGAN COLE
Environmental Scientist
BS, Environmental Science; MBA

Logan, who has more than 10 years of experience with water permitting, brings regulatory and business perspectives to his consulting work on behalf of clients. Before joining Barr, he spent nine years with the Missouri Department of Natural Resources' Water Protection Program, serving first as an environmental specialist writing NPDES industrial stormwater permits, as well as state and NPDES operating permits, and then as the environmental supervisor of the agency's NPDES enforcement group and MS4 coordinator.

Logan's recent work includes auditing stormwater compliance, writing SWPPPs, and analyzing water quality data with respect to antidegradation, assimilative capacity, and proposed water-quality-standard derivations. Combined with his MBA, that in-depth knowledge of water-pollution rules and regulations allows him to roundly analyze complex permitting situations, share insights about regulators' expectations, and develop strategies for achieving clients' operational and business goals within compliance frameworks.



Modeling and analysis lead

HEATHER LAU
Water Resources Engineer
MS, Civil Engineering

Heather has seven years of experience with H&H modeling, floodplain modeling and permitting, surface-water-quality management, and nutrient sampling. She has developed, updated, and reviewed PCSWMM, XPSWMM, HEC-HMS, and HEC-RAS models that have been used to determine flooding impacts, establish storm-sewer-network deficiencies, and design storm-water infrastructure for reducing nutrients, sediment, and flood risk.

Employing Minnesota minimal-impact design standards (MIDS) and using P8 urban-catchment-modeling software and AutoCAD Civil 3D, Heather has designed and sized stormwater treatment BMPs such as bioretention basins, iron-enhanced filtration basins, underground storage systems, proprietary treatment systems, and water-reuse structures. Her experience also includes developing H&H and water quality models to inform the development of stormwater master plan for numerous watershed clients.



GIS specialist

MEGAN NIESS
GIS Specialist
BS, Geography

Megan has six years of experience with GIS, mapping, and geodatabase development and management. She applies her GIS expertise to creating figures and maps, developing web-mapping applications, and managing, analyzing, and performing quality control on data. She also participates in watershed delineation and analysis, map development for SWPPPs, and mapping and analysis for environmental permitting projects. Megan has a particular focus on data quality and accessibility and is proficient in ArcGIS 10.0+ and ArcGIS Pro software and extensions.

Project descriptions

Stormwater-management and nine-element plans

City of Eau Claire, Wisconsin

Half Moon Lake is a vital water resource in the city of Eau Claire. In addition to bringing residents together for recreation and public events, the lake provides opportunities for environmental research and supports the wellness of visitors to a Mayo Clinic campus situated on its shore.



When the city hired Barr to develop a new municipal stormwater management plan for the first time in nearly 25 years, Half Moon Lake needed to be at the heart of it. Urban and agricultural stormwater runoff had been carrying pollutants such as phosphorus to the lake, degrading its water quality and leading to its placement on Wisconsin's impaired-waters list.

To create a framework for Eau Claire's new overall stormwater management plan, Barr:

1. Assessed the condition and extent of the city's existing storm-sewer system and developed a GIS-based storm-sewer risk assessment to prioritize infrastructure inspection and replacement
2. Performed hydrologic and hydraulic modeling of areas of forecasted development and recommended options for additional stormwater infrastructure to accommodate planned growth
3. Assisted the city in developing stormwater and erosion-control ordinances, a process that involved extensive interaction with the public
4. Developed a nine-element watershed management plan for Half Moon Lake, which allowed Eau Claire to apply for funding under Section 319 of the Clean Water Act to implement projects that would improve the lake's water quality

In preparing the nine-element plan, Barr augmented previous analyses of the lake with new ones, which included performing detailed, simultaneous modeling of the dynamics that affect a lake's water quality: temperature, rainfall, wind, waves, nutrient and water inflows, forms of phosphorous (iron-bound and carbon-bound), and the number and variety of aquatic organisms. We then helped the city define the steps and costs needed to reverse the decline of Half Moon Lake's water quality, and incorporated that information into a proposed 10-year implementation program, along with planning-level cost estimates and potential funding sources.

After Eau Claire submitted a grant application that included the nine-element plan, the Wisconsin Department of Natural Resources awarded the city funds that covered 75 percent of the approximately \$70,000 cost of applying alum to the lake. The treatment, which took place in 2019, reduced the amount of phosphorus and other suspended solids in the water of Half Moon Lake, leaving it clearer and cleaner.

Water resources management plan and update, citywide modeling, and flood risk assessment City of Edina, Minnesota

Barr has helped the City of Edina with stormwater planning and management for decades. We prepared a comprehensive water-resources management plan that included development of a detailed, citywide XPSWMM model of the city's stormwater system; identification of flood-prone areas; modeling and identification of water-quality treatment improvements; and development of a wetland inventory and wetland-functions and -values assessment. The plan provided a framework for evaluating future stormwater-infrastructure needs.

A few years later, we updated the plan, including revising its XPSWMM model to reflect recent development and evaluating stormwater-quality treatment options to comply with phosphorus-loading requirements set by the watershed district. We also developed an interactive GIS web application that allows the city to easily access its water resources information.

More recently, Barr assisted Edina with developing its third-generation plan. The plan update had a significant focus on flooding: identifying and prioritizing flooding issues throughout the city, identifying flood-risk-mitigation strategies, and evaluating potential system improvements to reduce flood impacts from increased rainfall and storm intensity. The plan also included updates to policies to address changes in flood-management and water-quality priorities. Barr worked closely with city staff to develop flood mitigation and management strategies.

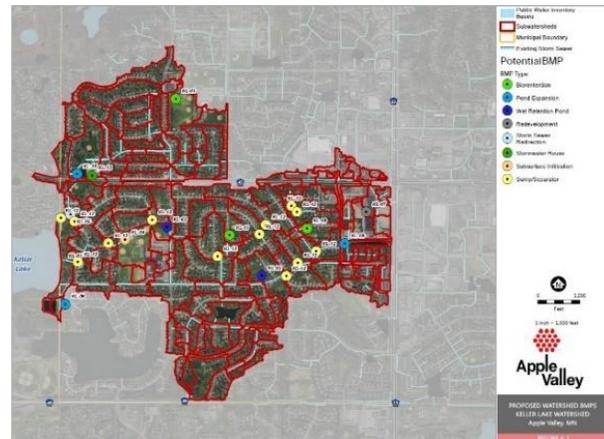
To help the city better understand its flood risk, Barr also conducted a stormwater-system vulnerability assessment for 25 flood-prone areas. The City's XPSWMM models were updated to reflect increased NOAA's Atlas 14 100-year precipitation frequency estimates. The models were used to identify storm-sewer capacity limitations for a range of rainfall frequencies. Revised 100-year flood-inundation areas were mapped based on modeled flood elevations with a customized GIS tool. The maps were then used to identify and prioritize areas where critical roadways and structures were affected by flooding. Barr evaluated the highest-priority flood areas to identify options for reducing flood risk and associated costs and benefits.



Surface-water management plan, modeling, and plan implementation City of Apple Valley, Minnesota

In recent years, Barr has been working with the City of Apple Valley to manage its surface-water resources and stormwater conveyance system. We completed the City's 2018–2027 surface-water management plan. The third-generation plan is a stand-alone document but was also incorporated as a section into the City's 10-year comprehensive plan.

Barr's work included creating a PCSWMM model of the city's storm-sewer system. The model uses rainfall and watershed data to simulate local runoff hydro-graphs as well as storage, surface flooding, and outfall tailwater conditions. Once calibrated to past storm events, it was run for the 10-year, 100-year, Atlas 14, and 24-hour rainfall events. Barr trained city staff to use the model for their day-to-day engineering work. We are on call for questions or issues.



Barr used the model and GIS datasets to develop a P8 water-quality model for key areas and water bodies such as the Keller Lake watershed. In 2011, a TMDL study for Keller Lake assigned a 54 percent total-phosphorus load-reduction goal to the city. Barr's P8 water-quality model was then used to calculate phosphorous- and total-sediment load reductions from strategic installation of BMPs at roadway-improvement projects.

MS4 stormwater management plan City of Independence

The City of Independence retained Barr to review and revise its stormwater management plan (SWMP) to align the plan with the requirements of the Phase I MS4 permit and the City's stormwater programs and ordinance. Work included evaluating the existing SWMP and the City's approach to implementing BMPs for each of the nine minimum control measures (MCMs), and then recommending plan revisions.

The final plan included revisions to program plans and procedures and provided an updated set of goals and timelines for each of the MCMs.

Spencer Creek Watershed Stormwater Monitoring Plan City of St. Peters

Barr prepared a sampling-and-analysis and quality-assurance project plan that met the criteria of MoDNR's non-point-source management unit and helped the City of St. Peters fulfill the obligations of 319 funding and complete its nine-element plan. We worked closely with the City to develop a monitoring-program budget that included costs for capital equipment, sampling, and laboratory analysis.

Barr provided on-site assistance to establish monitoring stations and assisted with station installation and training.

Sugar Creek Lake source-water protection plan

Client: City of Moberly

Barr worked with the City of Moberly to develop a source-water protection plan for Sugar Creek Lake, which is the city's sole source of water supply. The planning process includes both water-quality and water-supply planning, and Barr designed a basemap with layers that represent available data and information about the Sugar Creek Lake watershed.

Our work included analyzing watershed data, including conducting a stream-power index analysis and pollutant-loading analysis for the lake watershed; designing and scoping the planning process; and, as a key member of the City's core planning team, leading presentation of data and information about the watershed and lake to stakeholders at public meetings.

Barr also guided the City through a stakeholder engagement process and documented stakeholder input; facilitated meetings with the City and MoDNR; and provided information to support updating the Sugar Creek Lake optimal-yield analysis. In addition, we recommended alternatives for long-term water-supply sources for consideration, and developed a plan for the city's lake and watershed that includes goals, objectives, and strategies for achieving the City's long-term water quantity and quality targets.

The plan was completed in 2020.



Seven Bridges Road modeling and cost estimate

City of Moberly

Barr performed a flood study to evaluate conceptual flood reduction improvements in the Seven Bridges Road watershed in Moberly. Barr and City staff members made several field visits to view existing stormwater infrastructure and gather field data for H&H modeling.

Publicly available lidar data were used to develop detailed subwatershed divides. H&H modeling was performed to evaluate existing conditions and determine the impact in reducing flood potential along the road for each conceptual improvement option analyzed. A summary of the conceptual improvement options—including the flood reduction impacts, estimated construction costs, and additional considerations—is currently under development. GIS figures were developed detailing existing conditions model results and each conceptual improvement study for future use in public discussion and planning.



NPDES MS4 assistance City of Moberly

Barr has worked with the City of Moberly on multiple MS4 services related to its Phase II MS4 NPDES permit, including a comprehensive update of its stormwater management plan, stormwater manual updates, outfall determinations, and permit compliance assistance.

Stormwater management plan

Barr provided a comprehensive update to the SWMP to align the City's stormwater programs with its stormwater ordinance and the requirements of the MS4 permit. This project included an evaluation of the existing SWMP and the City's approach to implementing BMPs for each of the six MCMs. The updated plan included revisions to program plans and procedures and provided an updated set of goals and timelines for each of the MCMs established in the City's MS4 permit. The plan update also included an open-meeting presentation to the public. A final plan update document was provided to MoDNR for review.

Stormwater manual updates

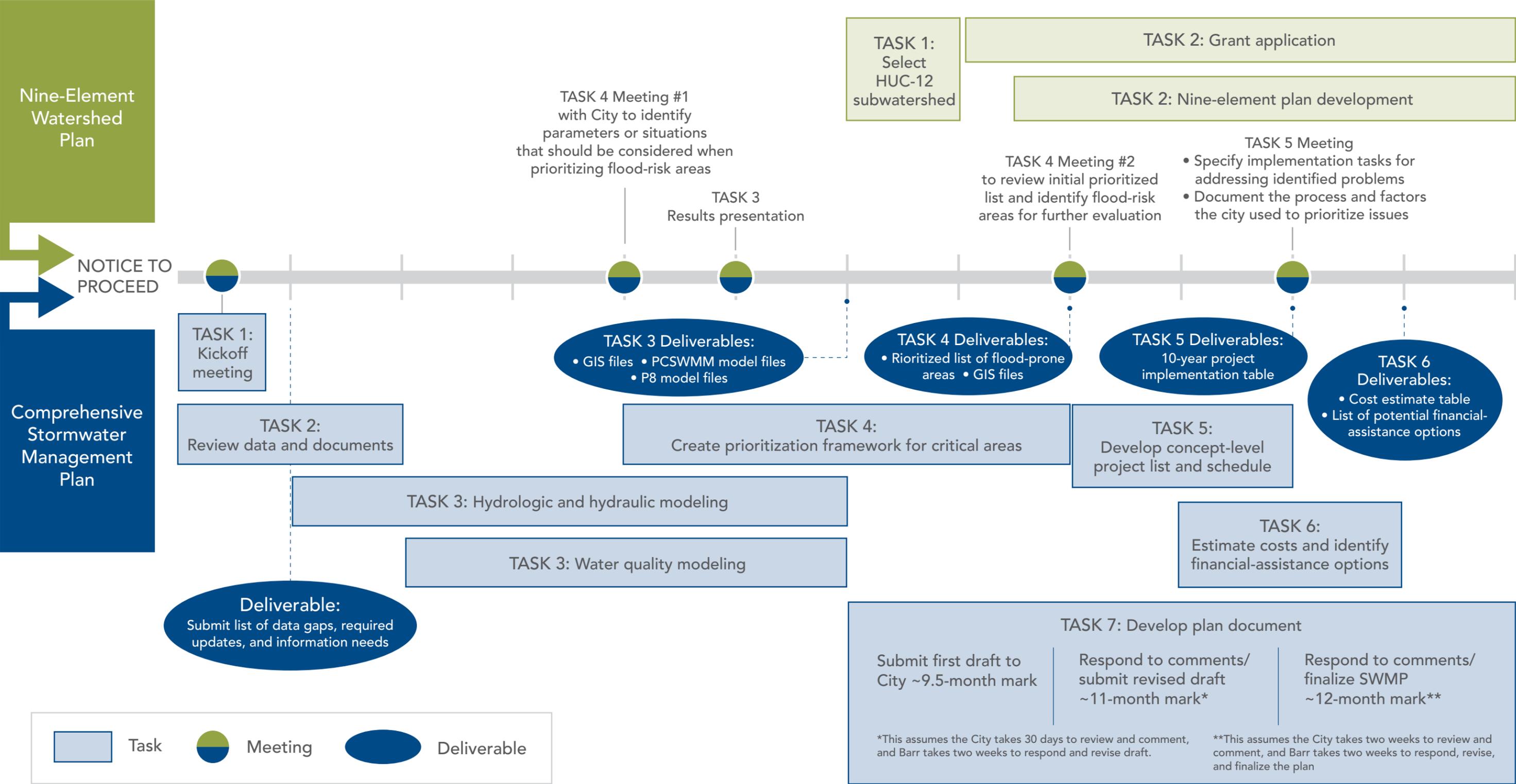
Barr worked with the City to revise its land-disturbance manual, land-disturbance field manual, and post-construction manual, which are used to provide City procedures and requirements to developers for new development and redevelopment. They also help Moberly implement its MS4 program and meet the requirements of its Phase II MS4 permit. Revisions to the manuals were part of the overall update to the City's SWMP. Barr's review and revisions of the manuals helped ensure that the manuals aligned with the City's stormwater ordinance, plans and procedures, SWMP, and state requirements.

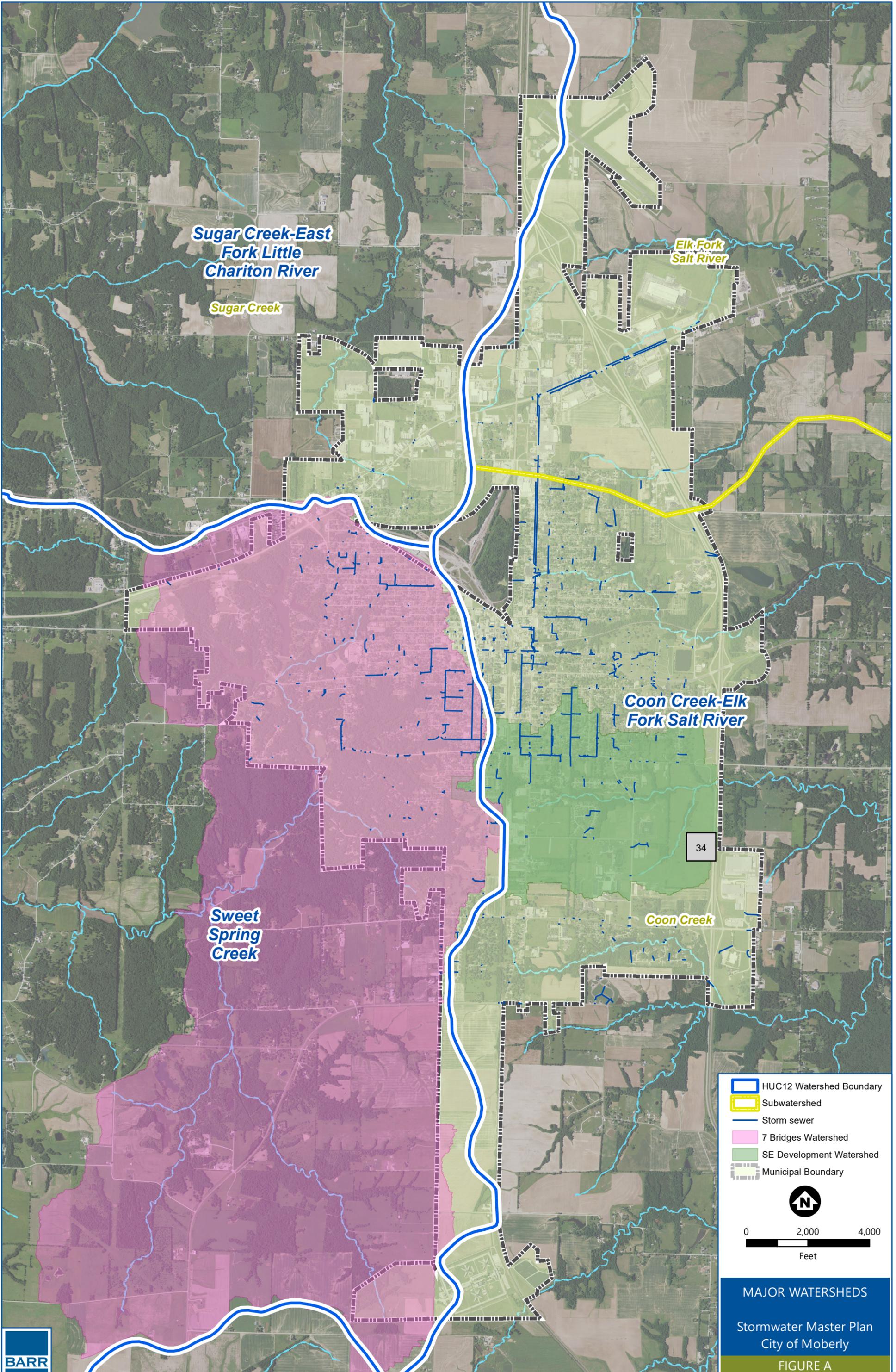
Outfall determinations

A review of the existing SWMP determined that the areas of focus for its update would include a survey of outfalls and a more-robust written procedure for identifying and eliminating illicit discharges to the City's MS4 permit. Barr performed a desktop evaluation of the topography and watershed boundaries, and then conducted a field survey of the areas identified as likely to contain MS4 outfalls. Using these results and GIS, we located and updated the set of MS4 outfalls. The new outfall information was used to identify priority areas for routine inspection, which were included in the final illicit-discharge detection and elimination plan.

Attachment A: Schedule graphic

ANTICIPATED SCHEDULE





City of Moberly City Council Agenda Summary

Agenda Number: _____
Department: Police
Date: October 3, 2022

Agenda Item: A Request From The YMCA To Hold The 2022 Turkey Trot 5K On November 24, 2022.

Summary: A request was received to hold the 2022 Turkey Trot 5K on November 24, 2022. This is a fundraiser for the Randolph County YMCA. The race will begin in the 200 block of N 5th Street. Runners will travel south on 5th Street to Fisk Avenue, turn west onto Fisk Avenue and travel to Rothwell Park Road and Fisk Avenue, turn north into Rothwell Park and travel to the James Youth Cabin, turn right at the James Youth Cabin, and travel east across the dam to Holman Road at the War Memorials. Then turn south on Holman Road to W Reed Street, turn east on W Reed Street to Hagood Street, cross Hagood Street onto Adams Street and continue east to Johnson Street, cross Johnson Street and continue east on W Reed Street to 5th Street, turn north on 5th Street to the finish line in front of 214 N 5th Street. The contact person is Jamie Shirk, 660-263-3600. Expected participants are 150 to 200; expected 15-20 people to assist with the 5K. Registration begins at 7:00 a.m. and the race begins at 8:00 a.m.

Recommended Action Direct staff to bring to the October 17th Council meeting for final approval.

Fund Name:

Account Number:

Available Budget \$:

ATTACHMENTS:		Roll Call	Aye	Nay
___ Memo	___ Council Minutes	Mayor		
<u>x</u> Staff Report	___ Proposed Ordinance	M___ S___ Jeffrey	___	___
___ Correspondence	___ Proposed Resolution	Council Member		
___ Bid Tabulation	___ Attorney's Report	M___ S___ Brubaker	___	___
___ P/C Recommendation	___ Petition	M___ S___ Kimmons	___	___
___ P/C Minutes	___ Contract	M___ S___ Kyser	___	___
___ Application	___ Budget Amendment	M___ S___ Lucas	___	___
___ Citizen	___ Legal Notice			
___ Consultant Report	___ Other _____		Passed	Failed

City of



Police Department
Russell W. Tarr
Chief of Police
223rd Session FBI Academy

300 N. Clark Street
Moberly, MO 65270
Phone: 660-263-0346
Fax: 660-263-8540

Walk/Run Application Permit

Application Date: 9/20/2022
(Note: Application Date must be received by staff sixty (60) days prior to the event)

Requested Date of event: 11/24/2022

Purpose of event: Turkey Trot 5K

Name of event director: Jamie Shirk

Contact phone number(s) of director: 660 263 3600

Approximate number of participants: 150-200

Route requested, Begin & End Time: The race starts at the 200 block of N. 5th Street (Sundance Embroidery), then South on 5th Street, West on Wightman, Follow onto First Ave, North on Rothwell Park Rd (By maintenance building), right at the James Youth Center, South on Holman Rd, east on Reed St, north on Hogood St, East on Adams Ave, South on Johnson St, East on Reed St, north on 5th street, finish at 200 block of North 5th St. Race starts at 8am/7am Check-in/

(Please include a map diagram showing start to finish) Race will be done by 9am.

Will the route/streets be marked? Yes: No:

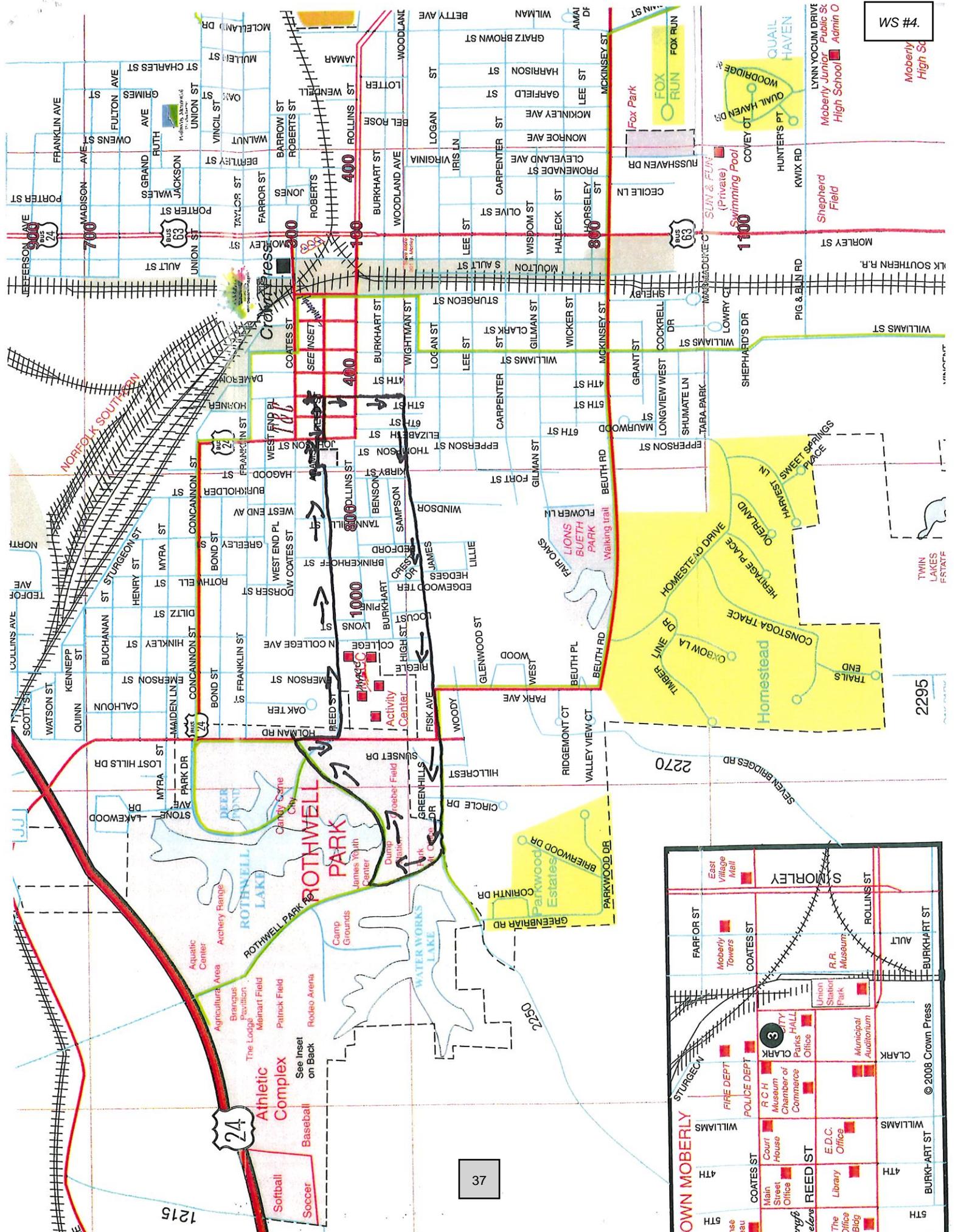
Will the organization furnish personnel to assist with the event?
Yes: No: If yes, how many? 15-20

Signature of applicant: Jamie Shirk

Approved: Declined:

Authorizing Official: [Signature] Date: 09 22 22

Emergency services assistance to monitor traffic will be provided for a period of time up to one (1) hour after the race begins.



WS #4.

Moberly High School

Shepherd Field

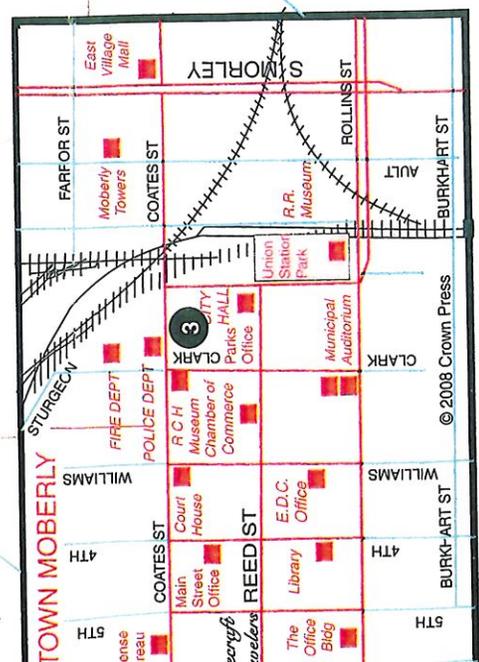
Moberly Junior Public School

Admin O

TWIN LAKES ESTATE

2295

37



© 2008 Crown Press

City of Moberly City Council Agenda Summary

Agenda Number: _____ WS #5.

Department: City Manager

Date: October 3, 2022

Agenda Item: Proposals From The Tourism Advisory Commission.

Summary: At the September 20, 2022, Moberly Tourism Commission meeting following proposals were reviewed and recommended for approval by the Commission.

A proposal from Mark Fischer-4th Street Theatre Plays. They are requesting \$672. This is event draws people from out of town. They are able to track attendance through event bright by zip codes. The board made a motion to approve this proposal of \$672.

A proposal from Brandon Lucas-Moberly Alumni Assoc. They are requesting \$1,000. This event will be held in the Fennel Complex with a car cruise, band. This event brings a lot of people from out of town for the homecoming game and bash event. The board made a motion to approve this proposal of \$1, 000.

The available budget for the Tourism Commission to approve proposals from is \$1,500. The board is recommending the remaining amount of \$172.00 be processed from capital projects budget or fund balance. The fund balance in Tourism Fund is \$177,564.80.

Recommended

Action: Direct staff to bring to the October 17th Council meeting for final approval

Fund Name: Non-Resident Lodging Tax Fund

Account Number: 102.000.5502

Available Budget \$: 1,500.00

ATTACHMENTS:		Roll Call	Aye	Nay
<input type="checkbox"/> Memo	<input type="checkbox"/> Council Minutes	Mayor		
<input type="checkbox"/> Staff Report	<input type="checkbox"/> Proposed Ordinance	M__ S__ Jeffrey	___	___
<input checked="" type="checkbox"/> Correspondence	<input type="checkbox"/> Proposed Resolution	Council Member		
<input type="checkbox"/> Bid Tabulation	<input type="checkbox"/> Attorney's Report	M__ S__ Brubaker	___	___
<input type="checkbox"/> P/C Recommendation	<input type="checkbox"/> Petition	M__ S__ Kimmons	___	___
<input type="checkbox"/> P/C Minutes	<input type="checkbox"/> Contract	M__ S__ Kyser	___	___
<input type="checkbox"/> Application	<input type="checkbox"/> Budget Amendment	M__ S__ Lucas	___	___
<input type="checkbox"/> Citizen	<input type="checkbox"/> Legal Notice			
<input type="checkbox"/> Consultant Report	<input type="checkbox"/> Other _____		Passed	Failed

City of *Moberly!*

Name of Organization: 4th Street Theatre Players Date: 8/19/2022

Contact Person: Mark Fischer

Address: 110 N 4th Street, Moberly Telephone: 660-998-4688

Date of Event: Dec 9-11 Name of Event: A Christmas Story: The Play

How Event Promotes Tourism in Moberly

What are the specific, measurable Tourism benefits your event or capital project produces?
To generate tourism with people attending the show and visiting local downtown shops and restaurants.

How does your event promote tourism, conventions, and other events within the city?
Building a base of theatre and event goers that will continue to visit local restaurants, shops, and hotels to attend other performances.

How does your event attract non-residents?
Shows with additional funding have the opportunity to attract visitors from a 1 hour to 90-minute radius
By having a large cast production we will be attracting extended family and friends to the area and a well know show will attract larger attendance

If your application were accepted, how would the tourism funds granted be used? (If marketing, fill out itemized marketing budget)
Posters, Facebook Ads 90-mile radius, Show rights,

Financial Statement (See Attached)

Statement of Assurances

Any funds received under this grant will be used for the purposes described in this application. The figures, facts, and representations in this application are true and correct to the best of my knowledge.

Name (Please Print): Mark Fischer

Signature: *Mark Fischer*

Date: 8/19/2022 Title or Office Held: Board Member



MOBERLY TOURISM COMMISSION

GRANT APPLICATION

PROJECT SCORE SHEET

Date: 9-20-22

Tourism Board Member Name: _____

Name of Event: 4th Street Theatre - A Christmas Story

Name of Organization: 4th Street Theatre

Evaluation Factors	Possible Points	Score
Quantify expansion of tourism in Moberly	5	5
Positive Community Impact to Moberly	5	5
Quality and Uniqueness of proposed Project	5	5
Positive Economic Impact to Moberly	5	5
Stability of Management and capacity	5	5
Evidence of Community Support	5	5
Overnight Hotel Stays, Retail, Restaurant	5	5
Total	35	35

The following values are assigned to each numeric spread:

- Outstanding - 5 points
- Excellent - 4 points
- Good - 3 points
- Marginal - 2 points
- Poor - 1 point

\$672.00

City of

Moberly!

Name of Organization: Moberly Alumni Association Date: 10/21

Contact Person: Brandon L. Lucas

Address: 1315 E. Highway 24 Ste. G Telephone: 660-263-9400

Date of Event: Sept. 30th Name of Event: Moberly Homecoming Celebration

How Event Promotes Tourism in Moberly

What are the specific, measurable Tourism benefits your event or capital project produces?

See Answer #1

How does your event promote tourism, conventions, and other events within the city?

See Answer #2

How does your event attract non-residents?

See Answer #3

If your application were accepted, how would the tourism funds granted be used? (If marketing, fill out itemized marketing budget)

Complete

Financial Statement (See Attached)

Statement of Assurances

Any funds received under this grant will be used for the purposes described in this application. The figures, facts, and representations in this application are true and correct to the best of my knowledge.

Name (Please Print): Brandon L Lucas

Signature: Brandon L. Lucas

Date: 10/21 Title or Office Held: 徳散穂敲玲

Name of Organization: _____

Contact Person: _____ Phone: _____

Address: _____ Date of Event: _____

Amount of Award: _____ Date Granted: _____

Summary of Event

Attendance: _____ Moberly Hotel/Motel Rooms Used: _____

Average Stay (# of nights): _____

If Moberly motels sold out, list other accommodations that attracted overnight visitors:

Comments: _____

Describe the general impact this event had on the Moberly Community:

Describe the Success of this event"

Please use the space below for any additional information. Examples of promotional materials must also be submitted with Summary of Event form.

Beings a new group is now in charge, I cannot provide accurate numbers for their recent events. Please see event summary for more details.

Multiple horizontal lines for additional information.

To the best of my knowledge, the information given to the Moberly Tourism Committee concerning the above event is factual. I understand that the Moberly Tourism Committee may require receipts verifying expenditures.

Signed Brandon L. Lucas Title 德敦摠敵瑓
Date 9-19-22

Failure to complete this form within 60 days of the above event may result in denial of funds for future events. Mail this form the to City of Moberly Tourism Commission, 101 West Reed, Moberly, MO 65270, Attention: Moberly Tourism Commission.

Distinguished Members of the Tourism Board:

As many of you remember, the Moberly Homecoming Bash was arguably one of the largest tourism events in Moberly. It occurred one weekend per year, and created a home base for class reunions, friend reunions, and a social event like the city had not seen for years.

While at it's peak, the homecoming event attracted 2000+ visitors and had to be rolled into a 2-night event due to the demand from visitors. There were times when the Orscheln Heights Outdoor pavilion was just not big enough to hold all of the out of town (and in town) guests.

While I cannot produce an exact number of hotel rooms sold, what I can tell you is that there were no available vacancies in town. None. Every hotel was filled to the max and this was during the time that the Best Western/Moberly Inn was still operating. To accommodate traffic, we ran upwards of 3 to 4 shuttle buses that picked up at Hotels and a central location downtown as parking became an issue.

Our entertainment was always top notch and would always be one of the areas premier "party bands" that was sure to play a mixture of music that was fitting for all age groups. We were very conscious and did not want to isolate any of our guests. While at the same time, we wanted to provide a very upbeat experience so that our guests "wanted" to return the next year.

The Alumni Association team was top notch as well and did very well with little help. Most of the help was all volunteer based and people of the community loved coming to either help serve, collect money, pickup trash, or one of the many other jobs that this event requires.

Unfortunately, like many events that get big and start to grow legs, the board at the time had some different viewpoints. I personally wanted to keep building and start to bring in national performing acts. Unfortunately, the board did not want to keep getting larger, so I personally decided that my time had run its course. I resigned my position as President of the Board and allowed the others to keep doing their thing.

Today:

The Moberly Homecoming event is not the event that it used to be. Thus, myself and a couple of old board members decided to take the reins back and rebuild the image and brand. Unfortunately, we got ahold of the reigns about 2 weeks before last years event and did not have time to put together the full package. However, this year will be a different story as I anticipate at least 700-800 guests – or more!

We have booked great entertainment from St. Louis – a group called "That 80's Band" whom we had years ago. The community loved them! We have secured the Fennel Building for a great new look and provides us plenty of room to grow! Plus, we are working with local food truck vendors to provide a variety of food options for those wanting to take in the action! In addition, just today we secured a car cruise to help drive more traffic to the downtown area.....

While I cannot provide an accurate timeline as to when the event will be back to its glory days. I can provide a promise that I will do everything in my power to get it there. Hence, the reason for the \$1000.00 tourism grant request. The more we promote and rebuild our brand, the faster we become self-sustaining.

I do appreciate your time and look forward to answering any of your questions at your meeting.

Brandon L. Lucas
Moberly Alumni Assn.
President
660.263.9400

#1. The Moberly Homecoming Celebration has been one of the premier events in Moberly for over 15 years. The most measurable items that our event creates is it brings friends, family, and Alumni to Moberly (tourism). Many events are based around Homecoming, including our event and the football game. What we have noticed from past events is if they take the leap and come to town for one, it seems like they always become repeat customer. Thus, bringing many people to town that have not been back for some time. Personally, I would like to see other events build around this weekend as well – creating a major traffic driver for all events involved.

#2 Our event promotes tourism by providing a very unique event. An event based around the town's Homecoming Football game and a social event in the form that this City has not seen for several years. Many people will base their Class Reunions around this event as well. For example, many will attend the football game, attend the Moberly Homecoming Celebration – then stay the night at a hotel and attend their Class reunions the next day! It's a win for Tourism, it's a win for the hotels, and it's a win for the community.

#3 The funds would be used solely for marketing and help to rebuild brand recognition for one of the premier events in Moberly. Please see the itemized Marketing Budget included in the attached event Budget.



MOBERLY TOURISM COMMISSION

GRANT APPLICATION

PROJECT SCORE SHEET

Date: 9-20-22

Tourism Board Member Name: _____

Name of Event: MHS Alumni Bash

Name of Organization: moberly Alumni Assoc.

Evaluation Factors	Possible Points	Score
Quantify expansion of tourism in Moberly	5	5
Positive Community Impact to Moberly	5	5
Quality and Uniqueness of proposed Project	5	5
Positive Economic Impact to Moberly	5	5
Stability of Management and capacity	5	5
Evidence of Community Support	5	5
Overnight Hotel Stays, Retail, Restaurant	5	5
Total	35	35

The following values are assigned to each numeric spread:

- Outstanding - 5 points
- Excellent - 4 points
- Good - 3 points
- Marginal - 2 points
- Poor - 1 point

\$1,000.00

City of Moberly City Council Agenda Summary

Agenda Number: _____ WS #6.

Department: Community Development

Date: October 3, 2022

Agenda Item: Discussion Of Rate Increase Proposed By Waste Management.

Summary: Please see the attached summary.

Recommended Action: Bring this forward to October 17, 2022, regular City Council meeting for final approval.

Fund Name: N/A

Account Number: N/A

Available Budget \$: N/A

ATTACHMENTS:		Roll Call	Aye	Nay
<input type="checkbox"/> Memo	<input type="checkbox"/> Council Minutes	Mayor		
<input type="checkbox"/> Staff Report	<input type="checkbox"/> Proposed Ordinance	M__ S__ Jeffrey	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Correspondence	<input type="checkbox"/> Proposed Resolution			
<input type="checkbox"/> Bid Tabulation	<input type="checkbox"/> Attorney's Report	Council Member		
<input type="checkbox"/> P/C Recommendation	<input type="checkbox"/> Petition	M__ S__ Brubaker	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> P/C Minutes	<input type="checkbox"/> Contract	M__ S__ Kimmons	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Application	<input type="checkbox"/> Budget Amendment	M__ S__ Kyser	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Citizen	<input type="checkbox"/> Legal Notice	M__ S__ Lucas	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Consultant Report	<input checked="" type="checkbox"/> Other <u>Discussion</u>		Passed	Failed

WM Summary

Waste Management came to us several months ago pointing out some areas that they would like to discuss changes to improve efficiency and to address their increased costs.

Recycling was their number one item, change of location and a charge per ton from the facility to take the recyclables was shooting their cost up. At the initial meeting, they were talking about a figure of around \$50K.

Free City Containers – Under the original contract, the City of Moberly had 16 containers and they were at no charge. Over the years, the size and frequency of dumps has increased. They show that it has a book value of \$54K, cost to them.

Cart Change sizing – We are the only community they service with (3) sizes of carts. If we could reduce down to two sizes, it would significantly decrease the number of changes in carts and solve some other issues of people overfilling.

Frequency of Cart Change out – residents were changing cart sizes all the time, they wanted to make it once per year.

The first two items, Recycling, and free City containers, were by far the biggest concerns. After discussions with council & staff, it was agreed that we would agree to some adjustments with the carts, but not to agree to anything with the recycling or city containers.

Shortly after that the City received a notice that WM would be implementing a 16.67% increase, but it didn't break it down as to what it was for. Under our contract, an increase could only be equal to CPI, not to exceed 2.5%, unless there were some specific circumstances, specifically fuel prices, changes in location for disposal or outside imposed fee increases. The City denied this increase and sent a response, and it was not implemented.

A month or so following, we received a fuel inflator surcharge, Greg ran the numbers, and it was within the allowable limits for the fuel inflator, based on current costs. We had no choice but to add that to the bill and collect and remit.

Currently we have received another increase for recycling due to the facility that they transport materials to charging \$125/ton for recyclables that are dropped off. Again, that is an eligible item for increase. They are asking for past costs of \$70K+ that were not specifically noted previously, along with a month charge of \$2,740/mo. ongoing. Staff agrees that we have no choice but to collect the increase and remit, however as the previous charges were not "immediately" submitted as required by the contract, those are not being deemed eligible.

If council agrees to move forward with no changes, charges for the ongoing month increase would need to be applied to all accounts.

There could be room for discussion to revise the program to minimize or eliminate the increased charges. It is costing more than double for recyclables than it is to dispose of trash. The benefits of recycling were it was material with value and could be sorted, sold and reused. Now we pay twice as much and are not sure where it ends up.

The draft letter I have prepared asks for a breakdown of the costs, along with associated tonnage and how they can verify the materials are from Moberly (see below).

Tom



9/19/22

City of Moberly, MO
101 W Reed St
Moberly, MO
65270

Re: Changes in Recycling Disposal Fees

Dear City Leadership:

Waste Management of Missouri, Inc. (“WM”) is proud to be your community’s service provider and grateful for your business. WM is also proud of the essential work our frontline collection and recycling crews performed throughout the Force Majeure event of the COVID-19 pandemic and continue to provide your community despite lingering disruptions.

In 2018, the City Council voted to continue the solid waste and recycling collection program with WM by implementing a Contract Amendment, which will continue through April 30, 2030. This Amendment has updated language regarding the passthrough to the City of industry costs that can increase outside of WM’s control, such as fuel increases, changes in disposal costs, changes in disposal locations, etc. The City approved this language. Such passthrough language keeps the solid waste and recycling program fiscally sustainable in Moberly.

Specifically, the Amendment allows for rate adjustments to be passed along to the City due to changes in the cost of operations, such as disposal fees. Since April, 2020, WM has had to take Moberly’s recycling volumes to a facility in Jefferson City, after the facility in Chillicothe, MO that used to take these recycling volumes informed us they would no longer be accepted. This third-party facility in Jefferson City charges WM \$125/ton. With approximately 21.92 tons of recycling coming out of Moberly each month (263 tons per year), that is an increase of \$2,740.00 per month WM has incurred for the last 29 months (since April, 2020). That is a total increased cost we have born to date of \$79,460.00.

As contractually allowed, we will be passing this total cost of \$79,460.00 through to the City. We welcome your engagement to do so in a way supportive of your budgeting process needs. Also, going forward, the recycling rate will be adjusted upward by \$1.49/month, starting for services performed in and after October 2022. This \$1.49 is calculated by dividing the monthly \$2,740.00 increase across the current 1,840 recycling customers.

As your community partner, WM is as committed as ever to provide best-in-class service to our customers and the communities we call home. We appreciate your partnership in addressing these disposal changes. Please reach out if you have any questions,

Sincerely,
Ammon Taylor
Area Manager of Public Sector Solutions

A handwritten signature in black ink, appearing to read 'Ammon Taylor', is written over the typed name.

Recycling - cost is too high \$125/ton, recommend we do away with curbside and offer centralized drop off and see if that along with other recommendations, they will not implement increases.

City Trash bins - evaluate our actual needs for size and frequency and negotiate a reduced for all city containers vs. having some for free and others at full rate. They claimed this was a \$50k+ cost to them each year.

Citizen Carts - we are the only community that has three sizes of carts. If we eliminate the recycling cart, we should consider eliminating the 35 gallon cart. Most people that have them do it for the low price and overflow them every week. 65 and 95 are sufficient options.

Frequency of change on carts by residents. Elimination of the 35 gallon trash cart and recycling cart will significantly reduce change of carts.

Bulk item collection - it needs to be better than what it is. I don't know what the answer is.

Street weight limits - trash trucks are blowing up our streets. We need to discuss how we can get weight limits in check.

Do we want to discuss ownership of transfer station. That's has been Unclear for awhile. The original plan was for EDC to split that off for use as a transfer station. Upon ceasing to be a transfer station it was to revert to EDC. When property was sold to McKeown, does property revert to McKeown when transfer station use ends.