COMPLIANCE MAINTENANCE ANNUAL REPORT

Facility Name: Madison City | **Last Updated: 5/15/2014** | **Reporting Year: 2013**

Financial Management

	Questions	Points
1.	Person Providing This Financial Information	
	Name: Steve Danner-Rivers Telephone: (608) 261-9689 E-Mail Address(optional): sdannerrivers@cityofmadison.com	
2.	Are User Charge or other Revenues sufficient to cover O&M Expenses for your wastewater treatment plant AND/OR collection system ?	0
	● Yes (0 points) ○ No (40 points) If No, please explain:	
3.	When was the User Charge System or other revenue source(s) last reviewed and/or revised? Year: 2013	0
	● 0-2 years ago (0 points) ○ 3 or more years ago (20 points) ○ Not Applicable (Private Facility)	
4.	Did you have a special account (e.g., CWFP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?	0
	● Yes ○ No (40 points)	
	REPLACEMENT FUNDS(PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 5)	
5.	Equipment Replacement Funds	
	5.1 When was the Equipment Replacement Fund last reviewed and/or revised? Year: 2013	0
	● 1-2 years ago (0 points) ○ 3 or more years ago (20 points) ○ Not Applicable Explain:	
	5.2 What amount is in your Replacement Fund? **Equipment Replacement Fund Activity**	
	5.2.1 Ending Balance Reported on Last Year's CMAR: $109724.91	

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Financial Management (Continued)

5.2.2	*Adjustments* if necessary (e.g., earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)	+	$0.00
5.2.3	**Adjusted January 1st Beginning Balance**		$109,724.91
5.2.4	*Additions* to Fund (e.g., portion of User Fee, earned interest, etc.)	+	$0.00
5.2.5	*Subtractions* from Fund (e.g., equipment replacement, major repairs - use description box 5.2.5.1 below*.)	-	$14,158.19
5.2.6	**Ending Balance as of December 31st for CMAR Reporting Year**		$95,566.72

(All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.)

*5.2.5.1. Indicate adjustments, equipment purchases and/or major repairs from 5.2.5 above

New Pumps #1 and #2 at Lost Pine LS

5.3 What amount <u>should</u> be in your replacement fund? $0.01

(If you had a CWFP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the HELP option button.)

5.3.1 Is the Dec. 31 Ending Balance in your Replacement Fund above (#5.2.6) equal to or greater than the amount that should be in it(#5.3)?

- ● Yes
- ○ No Explain:

6. Future Planning

6.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating or new construction of your treatment facility or collection system?

- ● Yes (If yes, please provide major project information, if not already listed below)
- ○ No

Project Description	Estimated Cost	Approximate Construction Year
Additions to Collection System: This project is for construction of assessable sewer facilities for new development, including easement acquisition where applicable. These project locations and schedules are typically development driven and may come up with short notice. Amount shown is the estimate for 2014-2019.	$583,000.00	

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Financial Management (Continued)

Infiltration & Inflow Improvements: This project is for the continuing work on sewer inflow and infiltration problems in specific areas. Funding in 2014 includes continuing the lining of sewer mains and sewer access structures in the Waunona Way area ($50,000). In 2012, a staff study outlined major improvements required for an area in the near east that experiences occasional sewer flooding problems. The problems are in the area of Johns St & Cottage Grove Road and Lake Edge Boulevard & Hegg Avenue. Improvements based on the study began in 2013 and shall continue in 2015 and 2016. This budget item also anticipates: Continuing work in future years as other problem areas are better defined; lining of Sewer Access Structures (manholes); and professional study as needed. Amount shown is the estimate for 2014-2019.	$1,790,000.00	
Sewer with Reconstructed Streets: This project involves the replacement of older, problematic sewers in coordination with the City's Street Reconstruction and Pavement Management Program. Typically this provides for the replacement of clay sewers that are difficult to maintain, nearing the end of their service life, have a significant repair costs, or are undersized. Also, the Sewer Utility encourages residents to replace the portion of their sewer lateral that lies within the public right-of-way by offering to fund 75% of the cost. Six-inch mains under 'reconstruction' streets will be replaced because they do not meet current codes. Sewers beneath resurfaced streets are evaluated for replacement on a case-by-case basis. Amount shown is the estimate for 2014-2019.	$52,841,300.00	
Felland Area Sewer Extension to Nelson Rd: This project shall extend sanitary sewer service from the intersection of Burke Road and Felland Road, north to Nelson Road in order to serve the Nelson Neighborhood. This will also relieve the Nelson Road Lift Station which is nearing capacity and preclude further development. In 2008, an Impact Fee District was established to recover the costs of this project. The easement acquisitions have been completed, and construction is scheduled for 2015; however the anticipated construction year may be revised if development dictates.	$1,000,000.00	2015
Lower Badger Mill Creek Sewer Extension: This project will continue the extension of sanitary sewer to serve the Lower Badger Mill Creek Watershed. Previously completed work includes a new lift station at Mid Town Road and the extension of sanitary sewer from Mid Town Rd to Valley View Rd. The remaining work in this project includes the west branch sewer extension from Valley View Road to Mineral Point Road, scheduled for 2014, and the east branch sewer extension from Valley View Road to the South Point Lift Station, now advanced to 2014. Ultimately, the project will provide additional capacity for new development. Property acquisitions for the west branch were completed in 2012.	$2,250,000.00	2014

Financial Management (Continued)

	Trenchless Sewer Rehabilitations: This project shall rehabilitate failing sewers that meet certain criteria but do not necessitate the need for a complete replacement by means of open cutting. New technology allows the lining of existing sewer mains using cameras and remote controlled tools. Some are also rehabilitated (or lined) to address inflow and infiltration problems, where clear water flow enters the sewer system, reducing pipe capacity and increasing treatment costs. The amount budgeted will repair approximately seven miles of sewer main at a number of strategically selected locations, based on citywide need. This item may also include replacement of inaccessible sewers by a 'direct bore' method, which is a relatively new technology for replacement of gravity sewer mains. Backyard sewer mains are a focus. Amount shown is the estimate for 2014-2019	$8,566,500.00	
	Frances-Carroll Lakeshore Sewer Line: Properties between Langdon Street and Lake Mendota, from Carroll Street to Frances Street are served by public sewer that runs primarily along the lakeshore. Most of the sewer is early 1900's to 1920's and nearing the end of its design life. Most of the sewer is undersized for the present service demand. Much of the sewer is located in areas inaccessible for maintenance purposes, including under buildings and within areas showing no formal easements. This project shall systematically and strategically replace or rehabilitate these sewers to provide competent sewer in locations that can allow for maintenance.	$915,000.00	2014
	Royster Clark Redevelopment: The project will install public sanitary sewer within a proposed redevelopment area. Construction includes approximately 2900 feet of sewer main with approximately 115 service laterals. The sewer work would be in conjunction with full street and utility improvements. The project will be entirely assessed to the benefitting, newly created lots.	$500,000.00	2014
	Pumpkin Hollow Impact Fee District: This project shall extend sanitary sewer service from the West Side of the Interstate Highway at Hoepker Road, to the East side, then Northerly to Hoepker Road. This will allow for development of the Pumpkin Hollow Neighborhood. Easements have been obtained but the Impact Fee District is not yet established, awaiting a resurgence in development interest or an immediate development need. Construction is tentatively planned for 2015, however the anticipated construction year may be revised if development dictates.	$375,000.00	2015
	East Washington Sewer Rehab: This project will rehabilitate a major sewer interceptor located within East Washington Avenue, from Blount Street to the Yahara River. The existing sewer is 24" and 30" diameter, concrete sewer, installed in 1949. While structurally sound, the inside sewer lining has experienced chemical deterioration of the concrete, leaving portions of the structural steel exposed and subject to more rapid degradation. This project shall rehabilitate the existing line, primarily using trenchless technology methods that will not be disruptive to the right of way surface. Work is scheduled for 2015 to coordinate with similar bid work of the Madison Metropolitan Sewerage District.	$1,250,000.00	2015

7.	Financial Management General Comments:	

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Financial Management (Continued)

	Annually the City of Madison adopts a Capital Budget which funds equipment replacement and other infrastructure improvements, listed in a project format. Each project is reviewed and the funding amount for the next budget year is determined. In addition, the budget details future year estimates for the five subsequent years for each project.	

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

COMPLIANCE MAINTENANCE ANNUAL REPORT

Facility Name: Madison City	Last Updated: 5/19/2014	Reporting Year: 2013

Sanitary Sewer Collection Systems

	Questions	Points
1.	Do you have a Capacity, Management, Operation & Maintenance(CMOM) requirement in your WPDES permit?	
	● Yes ○ No	
2.	Did you have a documented (written records/files, computer files, video tapes, etc.) sanitary sewer collection system operation & maintenance or CMOM program last calendar year?	0
	● Yes (go to question 3) ○ No (30 points) (go to question 4)	
3.	Check the elements listed below that are included in your Operation and Maintenance (O&M) or CMOM program.:	
	☒ **Goals:** Describe the specific goals you have for your collection system: Convey wastewater to Nine Springs Waste Water Treatment Plant with minimum inflow, infiltration and exfiltration. Prevent public health hazards. Reduce inconvenience and damage by responsibly handling service interruptions. Eliminate claim and legal fees related to backup by providing immediate, concerned and efficient service to all emergency calls. Protect municipal investment by increasing the useful life and capacity of the system and parts. Use operating funds efficiently. Perform all activities safely and avoid injury. ☒ **Organization:** Do you have the following written organizational elements (check only those that you have): ☒ Ownership and governing body description ☒ Organizational chart ☒ Personnel and position descriptions ☒ Internal communication procedures ☒ Public information and education program ☒ **Legal Authority:** Do you have the legal authority for the following (check only those that apply): ☒ Sewer use ordinance Last Revised MM/DD/YYYY 12/15/2012 ☒ Pretreatment/Industrial control Programs ☒ Fat, Oil and Grease control ☒ Illicit discharges (commercial, industrial) ☒ Private property clear water (sump pumps, roof or foundation drains, etc) ☐ Private lateral inspections/repairs ☐ Service and management agreements ☒ **Maintenance Activities: details in Question 4** ☒ **Design and Performance Provisions:** How do you ensure that your sewer system is designed and constructed properly? ☒ State plumbing code	

Sanitary Sewer Collection Systems (Continued)

- [x] DNR NR 110 standards
- [x] Local municipal code requirements
- [x] Construction, inspection and testing
- [x] Others:

City of Madison Standard Specifications for Public Works Construction

- [x] **Overflow Emergency Response Plan:** Does your emergency response capability include (check only those that you have):
  - [x] Alarm system and routine testing
  - [x] Emergency equipment
  - [x] Emergency procedures
  - [x] Communications/Notifications (DNR, Internal, Public, Media etc)
- [x] **Capacity Assurance:** How well do you know your sewer system? Do you have the following?
  - [x] Current and up-to-date sewer map
  - [x] Sewer system plans and specifications
  - [x] Manhole location map
  - [x] Lift station pump and wet well capacity information
  - [x] Lift station O&M manuals

Within your sewer system have you identified the following?

- [x] Areas with flat sewers
- [x] Areas with surcharging
- [ ] Areas with bottlenecks or constrictions
- [ ] Areas with chronic basement backups or SSO's
- [x] Areas with excess debris, solids or grease accumulation
- [x] Areas with heavy root growth
- [x] Areas with excessive infiltration/inflow (I/I)
- [ ] Sewers with severe defects that affect flow capacity
- [ ] Adequacy of capacity for new connections
- [ ] Lift station capacity and/or pumping problems

- [x] **Annual Self-Auditing of your O&M/CMOM Program** to ensure above components are being implemented, evaluated, and re-prioritized as needed.
- [x] **Special Studies Last Year(check only if applicable):**
  - [x] Infiltration/Inflow (I/I) Analysis
  - [x] Sewer System Evaluation Survey (SSES)
  - [x] Sewer Evaluation and Capacity Managment Plan (SECAP)
  - [ ] Lift Station Evaluation Report
  - [x] Others:

The City conducted a study of the Johns St/ Hargrove Area in 2012/2013 after it was brought to our attention that there was high run times at MMSD's Johns Street Pumping Station (Pump Station #6). As a result of a flow monitoring study and extensive televising of the sanitary sewers in the area, the City is proposing $5.2 million in sewer replacements and upsizing over the next 10 years. The City also plans for extensive lining- 43,032' over the next 5 years.

4.	Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained:	

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Sanitary Sewer Collection Systems (Continued)

Cleaning	57.89	% of system/year
Root Removal	2.14	% of system/year
Flow Monitoring	1.68	% of system/year
Smoke Testing	0	% of system/year
Sewer Line Televising	8.30	% of system/year
Manhole Inspections	0.71	% of system/year
Lift Station O&M	78	# per L.S/year
Manhole Rehabilitation	0.38	% of manholes rehabed
Mainline Rehabilitation	4.71	% of sewer lines rehabed
Private Sewer Inspections	0	% of system/year
Private Sewer I/I Removal	0	% of private services

Please include additional comments about your sanitary sewer collection system below:

5. Provide the following collection system and flow information for the past year:

45.38	Total Actual Amount of Precipitation Last Year
34.48	Annual Average Precipitation (for your location)
764.7	Miles of Sanitary Sewer
30	Number of Lift Stations
0	Number of Lift Station Failure
13	Number of Sewer Pipe Failures
37	Number of Basement Backup Occurrences
39	Number of Complaints
27.04	Average Daily Flow in MGD
	Peak Monthly Flow in MGD(if available)

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Peak Hourly Flow in MGD(if available)

Sanitary Sewer Collection Systems (Continued)

LIST OF SANITARY SEWER OVERFLOWS (SSO) REPORTED

	Date	Location	Cause	Estimated Volume (MG)
1.	02/05/2013 10:15:00 AM to 02/05/2013 10:45:00 AM	S. Park St & W. Badger Rd, City SAS 4964.012	Plugged Sewer	0.0001
2.	02/23/2013 5:00:00 PM to 02/23/2013 6:00:00 PM	Troy Dr & Forster Dr - City SAS 5325.014	Plugged Sewer	0.0005

**** If there were any SSO's that are not listed above, please contact the DNR and stop work on this section until corrected.**

What actions were taken, or are underway, to reduce or eliminate SSO occurences in the future?

After resolving issues causing SSO our standard operating procedure is to televise impacted line. The inspection is reviewed to determine if a structural deficiency is present that needs to be remedied, if a different preventive maintenance cleaning schedule or process is required, and/or if a sewer system user needs to be contacted to address discharge issues.

PERFORMANCE INDICATORS

0.00	Lift Station Failures(failures/ps/year)
0.02	Sewer Pipe Failures(pipe failures/sewer mile/yr)
0.00	Sanitary Sewer Overflows (number/sewer mile/yr)
0.05	Basement Backups(number/sewer mile)
0.05	Complaints (number/sewer mile)
0.0	Peaking Factor Ratio (Peak Monthly:Annual Daily Average)
0.0	Peaking Factor Ratio(Peak Hourly:Annual daily Average)

6. Was infiltration/inflow(I/I) significant in your community last year?

● Yes
○ No

If Yes, please describe:

In June and July of 2013, we experienced I/I in the City Sewer with higher rainfall totals.

7. Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

● Yes
○ No

If Yes, please describe:

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Facility Name: Madison City	Last Updated: 5/19/2014	Reporting Year: 2013

Sanitary Sewer Collection Systems (Continued)

	We experienced increased pumping times in lift stations. In 2 areas that are known to be prone to I/I- Johns Street and Truax Airport, pump run times increased 40% during these months. The City's sewer successfully handled the additional flow, I/I, not resulting in a sewer overflow but the unnecessary pumping expense/ treatment costs along with the additional wear and tear on the City wastewater infrastructure has given the City cause to continue to make improvements to the areas.	
8.	Explain any infiltration/inflow(I/I) changes this year from previous years?	
	The increase in I/I can be attributed to the wet weather months that the Madison Area experienced. The City continues to replace or line aging clay infrastructure in wet weather to reduce the I/I.	
9.	What is being done to address infiltration/inflow in your collection system?	
	City Engineering has identified the Hargrove & Johns Street basins as top priorities for eliminating I/I. The City plans to upsize or replace 21,275 linear foot of aging vitrified clay sanitary sewer main over the next 10 years in this area including 70 manholes totaling $5.2 million in this area. The City also plans for extensive lining here- 43,032' over the next 5 years in this area as a result of our identifying it as being prone to I/I. In 2013, the City replaced 13 manholes and upsized 2,004 lineal feet of sanitary sewer main in this area and in 2014, the City plans to replace 8 manholes and upsized 1300 lineal foot of sanitary sewer main. Engineering Crews performed open-cut and trenchless repairs and will continue to do so prior to lining. The Truax Airport area is another area where the City had previously done extensive lining in 2008. Some of the liners have since failed and appear to be infiltrating groundwater through the liner. The City intends to rehab / replace the liners which have failed in the area. Of particular interest is the 345' of 24' diameter sanitary on Anderson Street. As a whole, the City intends to line 36,000 feet of clay sanitary sewer main in 2014, 27,714 ft of sewer main in 2015 and 39,714 ft of sewer main in 2016 including both wet and dry land areas. In 2013, the City in total replaced 11,315 lineal foot of aging vitrified clay sanitary sewer main and 75 manholes.	

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Facility Name: Madison City **Last Updated:** **Reporting Year: 2013**

WPDES No.0047341

GRADING SUMMARY				
SECTION	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Financial Management	A	4.0	1	4
Collection Systems	A	4.0	3	12
TOTALS			4	16
GRADE POINT AVERAGE(GPA)=4.00		4.00		

Notes:

A = Voluntary Range
B = Voluntary Range
C = Recommendation Range (Response Required)
D = Action Range (Response Required)
F = Action Range (Response Required)

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Facility Name: Madison City **Last Updated:** **Reporting Year: 2013**

Resolution or Owner's Statement

NAME OF GOVERNING BODY OR OWNER	DATE OF RESOLUTION OR ACTION TAKEN
City of Madison Common Council	
RESOLUTION NUMBER	
ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F. Regardless of grade, required for Collection Systems if SSO's were reported):	
Financial Management: Grade=A	
Collection Systems: Grade=A	
ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS (Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00) **G.P.A. = 4.00**	