

RESOLUTION  
NUMBER  
180207

2018 Municipal Wastewater Planning Report

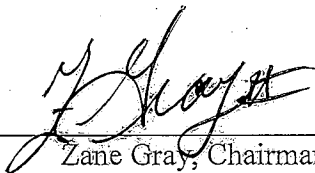
WHEREAS in their February 7, 2018 meeting, the MGSID Board of Trustees reviewed the attached Municipal Wastewater Planning Program Report for 2018;

WHEREAS MGSID has taken all appropriate actions necessary to maintain effluent requirements contained in the UPDES Permit;

NOW, THEREFORE, the Mountain Green Sewer Improvement District Informs the Water Quality Board that preceding actions were taken by the District Board of Trustees.

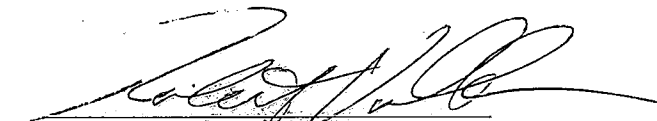
Passed by a (Majority) or (Unanimous) vote on: February 7, 2018

For the MGSID Board of Trustees,



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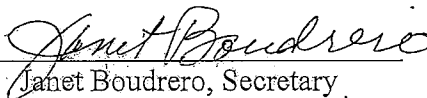
Zane Gray, Chairman



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Robert Volk, Manager

Attested by



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Janet Boudrero, Secretary



# Municipal Wastewater Planning Program (MWPP) Annual Report 2018

*Please Select the Appropriate Facility from the Dropdown Menu*

Facility Name:	<b>MOUNTAIN GREEN SID</b>
Facility Class and Grade	<b>LAGOON I --</b>
Owner Name:	<b>Mountain Green Sewer Improvement District</b>
Name and Title of Contact Person:	<b>Robert Volk</b> <b>Manager</b>
Phone:	<b>801-876-3416</b>
E-mail:	<b>robert@mgsid.com</b>

SUBMIT BY APRIL 15, 2018

Electronic Submittal:  
<https://deq.utah.gov/ProgramsServices/services/submissions/index.htm>

NOTE: This questionnaire has been compiled for your benefit to assist you in evaluating the technical and financial needs of your wastewater systems. If you received financial assistance from the Water Quality Board, annual submittal of this report is a condition of that assistance. Please answer questions as accurately as possible to give you the best evaluation of your facility. If you need assistance please call Beth Wondimu, Utah Division of Water Quality: (801) 536-4300.

## Definitions

I. Definitions: The following terms and definitions will help you complete the worksheets and questionnaire:

<sup>1</sup>**Asset Management** – Any combination of management tools applied to physical assets of the sewer system with the objective of providing the required level of service in the most cost-effective manner. It incorporates asset lifecycle management tools, including depreciation, with the accountant's cost allocation process.

<sup>2</sup>**Capital Facility Plan** – An engineering report detailing the planning procedures including a comprehensive analysis to establish the need, scope, basis, viability and implementation schedule of proposed sewer system projects.

<sup>3</sup>**Capital Improvements** - Addition of a permanent structural change or the restoration of a property that renews or improves its value, increases its useful life, or adapts it to new uses.

<sup>4</sup>**Capital Improvement Reserve Fund** - A fund or account established for capital improvement projects.

<sup>5</sup>**Debt Service** – A payment of interest and principal, usually due annually, made in repayment of a loan or bond obligation.

<sup>6</sup>**Debt Service Reserve Fund** - A fund or account established for use in making up deficiencies in bond repayment funds.

<sup>7</sup>**Equivalent Residential Connection (ERC)** - A unit of wastewater that incurs the same cost for operations and maintenance as the average volume of domestic waste discharged from a single family residence in the sewer system service area

<sup>8</sup>**Impact Fee** – A fee established by ordinance to be imposed on new development for payment of capital costs associated with providing public services to the new development.

<sup>9</sup>**Operation and Maintenance Costs** - The total annual cost for management, operations and maintenance of sewer systems including labor and benefits, general and administrative overhead, materials, supplies, utilities, fuel, tools, etc. These costs do not include capital improvements costs or debt service. Repair and replacement costs for fixed assets may be included.

<sup>10</sup>**Plan of Operations** – A plan summarizing the operational and financial requirements that the sewer system must meet to achieve its goals and purpose. The minimum requirements are established I UAC R137-3-1.8

<sup>11</sup>**Rate Study** – A study that establishes the user charge(s) of a sewer system based on the required level of service and its cost.

<sup>12</sup>**Repair and Replacement Costs** - The annual cost to renew or replace fixed assets of the sewer system. Fixed assets are generally land, buildings and equipment. These are often major major costs not included in operations and maintenance budgets.

<sup>13</sup>**Repair and Replacement Sinking Fund** - A fund or account established for renewal or replacement of fixed assets.

<sup>14</sup>**Sewer Revenues** - Income from user charges and other fees or taxes collected to pay the cost of sewer systems.

<sup>15</sup>**Sewer System** - The collective of sewerage systems and treatment works operated by the public utility or sponsor.

<sup>16</sup>**User Charge** - A fee established by ordinance and used to pay the cost of sewer systems. Different fees may be established for one or more classes of users. For purposes of this survey, user charge means the annual average fee charges per sewer connection.

## Instructions

Save this file to your local computer. The digital MWPP form is built in Microsoft excel. Please contact Beth Wondimu if you cannot find your facility name or having trouble downloading your digital MWPP form. You will need to fill all the yellow boxes with the appropriate information. Several of the questions are Yes/No questions that require you to select the yellow cell and then click the small arrow drop down button to be able to select the appropriate answer. You may move through the worksheet by simply pressing tab to move from box to box. Hitting Enter within the form may cause you to skip over questions. Please be sure to verify that all yellow boxes have been filled with the appropriate information. Begin filling out the form by selecting the name of your facility from the dropdown menu. Please be sure to select the correct facility from the dropdown menu. DWQ will only accept one form from each facility. Once you have entered all the appropriate information in all the yellow boxes the MWPP form is complete and you are ready to submit the completed MWPP package back to DWQ. Please be sure to save your completed form. Please do not submit your form until you have the date the MWPP was presented to your Board or Council completed. You may not submit a second form with the date at a later time. DWQ will only accept one form from each facility. If you experience any trouble or have any questions please contact DWQ Engineering Section Staff.

## Financial Evaluation Section

Form completed by:

Robert Volk

May Receive Continuing Education /units (CEUs)

Complete the following table:

MOUNTAIN GREEN SID

Part I: OPERATION AND MAINTENANCE	
Question	Answer
	Amount
What was the User Charge <sup>16</sup> for 2017?	\$ 40.00
	Yes/No
Are property taxes or other assessments applied to the sewer systems <sup>15</sup> ?	Yes
Are sewer revenues <sup>14</sup> sufficient to cover operations & maintenance costs <sup>9</sup> , and repair & replacement costs <sup>12</sup> (OM&R) <b><u>at this time</u></b> ?	Yes
Are projected sewer revenues sufficient to cover OM&R costs for the <b><u>next five years</u></b> ?	No
Does the sewer system have sufficient staff to provide proper OM&R?	Yes
Has a repair and replacement sinking fund <sup>13</sup> been established for the sewer system?	Yes
Is the repair & replacement sinking fund sufficient to meet anticipated needs?	No

Complete the following table:

MOUNTAIN GREEN SID

Part II: CAPITAL IMPROVEMENTS	
Question	Answer
	YES/NO
Are sewer revenues sufficient to cover all costs of current capital improvements <sup>3</sup> projects?	No
Has a Capital Improvements Reserve Fund <sup>4</sup> been established to provide for anticipated capital improvement projects?	Yes
Are projected Capital Improvements Reserve Funds sufficient for the <b><u>next five years</u></b> ?	Yes
Are projected Capital Improvements Reserve Funds sufficient for the <b><u>next ten years</u></b> ?	No
Are projected Capital Improvements Reserve Funds sufficient for the <b><u>next twenty years</u></b> ?	No

Complete the following table:

MOUNTAIN GREEN SID

Part III: GENERAL QUESTIONS	
Question	Answer
	YES/NO
Are sewer revenues maintained in a dedicated purpose enterprise/district account?	Yes

Are you collecting 95% or more of your anticipated sewer revenue?	Yes
Are Debt Service Reserve Fund <sup>6</sup> requirements being met?	Yes
Do you have a written emergency response plan for sewer systems?	Yes
Do you have a written safety plan for sewer systems?	Yes

Complete the following table:

**MOUNTAIN GREEN SID**

<b>Part IV: FISCAL SUSTAINABILITY REVIEW</b>	
<b>Question</b>	<b>Answer</b>
	YES/NO
Have you completed a Rate Study <sup>11</sup> within the last five years?	Yes
Do you charge Impact fees <sup>8</sup> ?	Yes
Have you completed an Impact Fee Study in accordance with UCA 11-36a-3 within the last five years?	Yes
Do you maintain a Plan of Operations <sup>10</sup> ?	Yes
Have you updated your Capital Facility Plan <sup>2</sup> within the last five years?	Yes
Do you use an Asset Management <sup>1</sup> system for your sewer systems?	Yes
Do you know the total replacement cost of your sewer system capital assets?	Yes
Do you fund sewer system capital improvements annually with sewer revenues at 2% or more of the total replacement cost?	Yes
Please enter the date that this MWPP package was presented to your Board or Council	2/7/2018

Provide your best estimate of the following costs:

<b>Part IV: PROJECTED NEEDS</b>				
<b>Cost of projected capital improvements</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
	\$0	\$0	\$25,000	\$25,000
	<b>2022</b>	<b>2023</b>		
\$400,000	\$400,000			

**FINANCIAL EVALUATION SECTION END**

## Collection System Section

Form completed by:

Robert Volk

May Receive Continuing Education /units (CEUs)

Complete the following table:

MOUNTAIN GREEN SID

Part I: SYSTEM AGE	
Question	Answer
What year was your collection system first constructed (approximately)?	1990
What year was the the oldest part of your collection system constructed, replaced, or renewed?	1990

Complete the following table:

MOUNTAIN GREEN SID

Part II: DISCHARGES	
Question	Answer
	Number
How many days last year was there a sewage bypass, overflow or basement flooding in the system due to rain or snowmelt?	0
How many days last year was there a sewage bypass, overflow or basement flooding due to equipment failure (except plugged laterals)?	0

The Utah Sewer Management Program defines two classes of sanitary sewer overflows (SSOs):

**Class 1** - a Significant SSO means a SSO or backup that is not caused by a private lateral

- (a) affects more than five private structures;
- (b) affects one or more public, commercial or industrial structure(s);
- (c) may result in a public health risk to the general public;
- (d) has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or
- (e) discharges to Waters of the state.

**Class 2** -a Non-Significant SSO means a SSO or backup that is not caused by a private lateral

Below include the number of SSOs that occurred in year: 2017

Number of Class 1 SSOs in Calendar year	0
Number of Class 2 SSOs in Calendar year	0

Please indicate what caused the SSO(s) in the previous question.

N/A

Please specify whether the SSOs were caused by contract or tributary community, etc.

N/A



Complete the following table:

**MOUNTAIN GREEN SID**

**Part III: NEW DEVELOPMENT**

Question	Answer
	Yes/No
Did an industry or other development enter the community or expand production in the past two years, such that flow or wastewater loadings to the sewerage system increased by 10% or more?	Yes
Are new developments (industrial, commercial, or residential) anticipated in the next 2 - 3 years that will increase flow or BOD <sub>5</sub> loadings to the sewerage system by 25% or more?	Yes
Number of new residential sewer connections added in the last year	38
Number of new commercial/industrial connections in the last year	1
Equivalent residential connections <sup>7</sup> served	1,082

Complete the following table:

**MOUNTAIN GREEN SID**

**Part IV: OPERATOR CERTIFICATION**

Question	Answer
How many collection system operators do you employ?	4
Approximate population served	3700

*State of Utah Administrative Rules requires all public system operators considered to be in Direct-Responsible-Charge (DRC) to be appropriately certified at lease at the Facility's Grade.*

What is the current grade of the collection system DRC operator(s)?

Robert Volk	1
Dennis Baldwin	1
Jim Wixom	1
[Names]	[Grade]
[Names]	[Grade]

Facility Class & Grade

LAGOON	I
-	-

List all other collection operators in your system by their certification.

*Note: Enter all names even if the list isn't visible within the cell.*

Not Certified	Ian Nevius
Small Lagoons	[Names]
Collection I	[Names]
Collection II	[Names]
Collection III	[Names]
Collection IV	[Names]

**Yes/No**

Is/are your DRC operator(s) currently certified at the appropriate grade for this facility?	Yes
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Complete the following table: **MOUNTAIN GREEN SID**

<b>Part V: FACILITY MAINTENANCE</b>	
Question	Answer
	Yes/No
Have you implemented a preventative maintenance program for your collection system?	Yes
Have you updated the collection system operations and maintenance manual within the past 5 years?	Yes

Complete the following table: **MOUNTAIN GREEN SID**

<b>Part VI: SSMP EVALUATION</b>	
Question	Answer
	Yes/No
Has your system completed a Sewer System Management Plan (SSMP)?	Yes
Has the completed SSMP been public noticed?	Yes
Date of Public Notice	4/2/15
Has the SSMP been adopted by the permittee's governing body at a public meeting?	Yes
During the annual assessment of the SSMP, were any adjustments needed based on the performance of the plan?	No
If yes, what components of the plan were changed (i.e. line cleaning, CCTV inspections, manhole inspections and/or SSO events)?	
<b>N/A</b>	
	<b>Yes/No</b>
During 2017, was any part of the SSMP audited as part of the five year audit?	No
If yes, what part of the SSMP was audited and were changes made to the SSMP as a result of the audit?	
<b>N/A</b>	
	<b>Yes/No</b>
Have you completed a System Evaluation and Capacity Assurance Plan (SECAP) as defined by the Utah Sewer Management Program?	Yes

Complete the following table:

This section should be completed with the system operators.

MOUNTAIN GREEN SID

**Part VII: NARRATIVE EVALUATION**

Question	
Describe the physical condition of the sewerage system: (lift stations, etc. included)	
<p><b>The condition of the sewerage system is good. The collection system ranges from 28 years in age to new. 1/3 of the system is cleaned and videod every year, and almost all manholes are inspected every year. Broken manhole collars are repaired as necessary. Lines and lift stations are below capacity limitations and we have had no SSO's or bypasses. The lagoons and aeration system are still operating as designed.</b></p>	
What sewerage system capital improvements <sup>3</sup> does the utility need to implement in the next 10 years?	
<p><b>Over the next 10 years I anticipate that we will have to replace lift pumps in both lift stations, and possibly dredge the lagoons. We have a preliminary engineering report for a membrane bio reactor that will increase capacity and replace the lagoons in order to meet nutrient removal requirements. Current estimate on engineering would be 2022 with construction begining around 2024-2025. The lagoons will have to continue to</b></p>	
What sewerage system problems, other than plugging, have you had over the last year?	
<p><b>Lift pumps fouling due to wipes and rags getting through the grinder.</b></p>	
Is your utility currently preparing or updating its capital facility plan <sup>2</sup> ?	
<p><b>We are operation on the preliminary engineering report and facility plan that was approved in 2014.</b></p>	
<b>Select Answer</b>	
Does the municipality/district pay for the continuing education expenses of operators?	100% covered
Is there a written policy regarding continuing education and training for wastewater operators?	
<p><b>Yes - personnel policy</b></p>	

Any additional comments?

**N/A**

**COLLECTION SYSTEM SECTION END**





## Discharging Lagoon Facility

Form completed by:

Robert Volk

May Receive Continuing Education /units (CEUs)

Complete the following table:

MOUNTAIN GREEN SID

**Part I: INFLUENT INFORMATION**

**Question**

Please provide the average influent flow rate and average influent BOD<sub>5</sub> and TSS loading rates listed below for your facility.

	Average Daily Flow (MGD)	Average Daily BOD <sub>5</sub> Load (lb/day)	Average Daily TSS Load (lb/day)
Design Basis or Rated Capacity	0.61	1146	1151
2017 Average	0.34	480	494
Percent Capacity in Use	56%	42%	43%

Complete the following table:

MOUNTAIN GREEN SID

**Part II: EFFLUENT INFORMATION**

**Question**

**Answer**

How many Notices of Violation (NOVs) did you receive for this facility in the review year?

0

Complete the following table:

MOUNTAIN GREEN SID

**Part III: FACILITY AGE**

**Question**

In what year were the following process units most recently constructed, upgraded or renewed?

**Note:** If a unit process does not apply to your system enter the **Evaluation Year** under **Construction or Upgrade Year**.

Unit Process	Evaluation Year	Construction or Upgrade Year	Age
Headworks	2017	2008	9
Lagoons (including aeration)	2017	2008	9
Disinfection	2017	2008	9

Complete the following table:

MOUNTAIN GREEN SID

**Part IV: DISCHARGES**

**Question**

**Answer**

How many days in the past year was there a bypass or overflow of wastewater at the facility due to high flows?

0

How many days in the last year was there a bypass or overflow of wastewater at the facility due to equipment failure?

0



Complete the following table:

MOUNTAIN GREEN SID

**Part V: NEW DEVELOPMENT**

Question	Answer
Number of new residential sewer connections added in the last year	38
Number of new commercial/industrial connections added in the last year	0
Equivalent residential connections <sup>7</sup> served	1,082

Complete the following table:

MOUNTAIN GREEN SID

**Part VI: OPERATOR CERTIFICATION**

Question	Answer						
How many treatment operators do you employ?	4						
<i>Utah Administrative Rules require all public system operators considered to be in Direct-Responsible-Charge (DRC) to be appropriately certified at least at the Facility's Grade.</i>							
What is the current grade of the treatment system DRC operator(s)?							
Robert Volk	1						
Dennis Baldwin	1						
Jim Wixom	1						
[Names]	[Grade]						
[Names]	[Grade]						
[Names]	[Grade]						
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Facility Class &amp; Grade</th> </tr> </thead> <tbody> <tr> <td>LAGOON</td> <td>I</td> </tr> <tr> <td>-</td> <td>-</td> </tr> </tbody> </table>		Facility Class & Grade		LAGOON	I	-	-
Facility Class & Grade							
LAGOON	I						
-	-						
List all the operators in your system by their certification class. <i>Note: Enter all names even if the list isn't visible within the cell</i>							
Not Certified	Ian Nevius						
Small Lagoons	[Names]						
Treatment I	[Names]						
Treatment II	[Names]						
Treatment III	[Names]						
Treatment IV	[Names]						
Is/are your DRC operator(s) currently certified at the appropriate grade for this facility?	Yes/No Yes						

Complete the following table:

MOUNTAIN GREEN SID

**Part VII: FACILITY MAINTENANCE**

Question	Answer
	Yes/No
Have you implemented a preventative maintenance program for your treatment system?	Yes

Have you updated the treatment system operations and maintenance manual within the past 5 years?	Yes
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Identify the types of treatment units at your facility.

TREATMENT TYPE	Yes/No
Screening	No
Grit Removal	No
Lagoon Variations	Yes
Phosphorus Treatment	No
Chlorine Disinfection	Yes
UV Disinfection	No

**DISCHARGING LAGOON FACILITY SECTION END**

