



MEMORANDUM

TO: Paul Ruud, Telluride Public Works Director; Ross Herzog, Telluride Town Manager; Finn Kjome, Mountain Village Public Works Director; Kim Montgomery, Mountain Village Town Manager

FROM: Karen Guglielmon, Public Works Environmental & Engineering Division Manager

DATE: May 7, 2018

SUBJECT: Telluride Regional Wastewater Treatment Plant Master Plan – Progress Update

The last update for the Telluride Regional Wastewater Treatment Plant Master Plan was in memorandum format on November 16, 2017. Since that date, a good deal of work has taken place in accordance with the 2018 milestones that were outlined in the November 2017 memorandum. The following list of activities follows that outline.

Telluride Regional WWTP Master Plan

Financial Analysis – As scheduled, in this first quarter of 2018, a Request for Proposals was issued and FCS Group was contracted in late February to complete a Financial Analysis of the TRWWTP to identify how to move forward financially with implementing the TRWWTP Master Plan. This work relies on participation from each entity within the TRWWTP service area on a Financial Analysis Task Force. Telluride, Mountain Village, San Miguel County, Lawson Hill, Aldasoro, and Hillside/Eider Creek each have representatives that have been invited. Most are actively participating. There have been 2 meetings with the contractor to date: April 10, 2018, and April 27, 2018. The group has agreed that determining a path forward with the current service arrangements for the next 5 years is advisable. Further into the future, starting in 2022ish, the group is moving forward assuming that a Wastewater District will be in place to manage and finance additional ongoing anticipated expenses.

Jason Mumm with FCS Group will be making its first in-person presentation to the Town Councils of Telluride and Mountain Village the week of June 11th.

The Flow Path – The TRWWTP Master Plan Implementation remains on track, despite some changes to the mix of players. The TRWWTP Master Plan Implementation Team agreed that it was no longer of interest to continue the engineering consulting relationship with Stantec, the engineering firm selected to complete the TRWWTP Master Plan. That contract was terminated amicably, and all work has been wrapped up, and all files have been handed over. The TRWWTP staff and the Telluride's Environmental & Engineering Division staff is taking the reins to move 2018 implementation tasks forward, including: CleanB Biosolids Treatment Pilot Project, Biosolids Dewatering/Thickening Technology Selection & Design, and Supplemental Oxygen Technology Selection & Design, as described later in this memorandum. Telluride's new Town Engineer, Joyce Huang, is very experienced with both water and wastewater system. As well, a new contract is being put in place with an engineering consulting team from Jacobs, formerly CH2M, for approximately

\$115,000, to take a second look at the current Flow Path – that is, the ATAD and MBR technologies selected to upgrade the TRWWTP. Jacobs will also look at a potential alternative path that would include primary clarification with ATAD and with a Biosolids Dryer. Each of these will be assessed and compared with respect to feasibility and cost to construct.

Clarifying a Future Site Plan – Securing an agreement for land acquisition with San Miguel Valley Corporation remains a goal for 2018.

Outreach to the Service Area – Telluride Staff continues to coordinate and to present information to all entities within the service area regarding the TRWWTP Master Plan implementation.

CDPHE Regulation

Nutrients – Staff has signed up for the early implementation program for meeting CDPHE Regulation 85 discharge limits for total inorganic nitrogen (15 mg/L) and total phosphorus (1 mg/L). If any work that the TRWWTP accomplished between now and 2023 reduces the TIN and TP concentrations below specified levels, then time may be earned on the implementation of water quality-based nutrient limits that will be imposed in the future.

Temperature – Staff continues its work to fully characterize this parameter to provide information that helps inform the need to respond to future potential regulation of instream temperature. The hobo temperatures meters that San Miguel Watershed Coalition purchased and installed upstream and downstream of the TRWWTP discharge will be invaluable for this assessment.

In-stream Flow – Staff continue its work with its contractor, Resource Engineering, to fully characterize flows in the San Miguel River to provide information that ensures future discharge permits use flow data that are representative of the reach into which the TRWWTP discharges.

CDPS Permit Renewal

CDPHE staff is expected to issue an Administrative Continuance of the current permit in mid- or late-May 2018, due to their extensive permit review and re-issuance backlog.

Biosolids Management Improvements

CleanB Biosolids Treatment System Pilot Test. The 3-month long CleanB Pilot revealed that this technology will not work with the TRWWTP. BCR Environmental took the pilot system away the first week of May. Staff is working with their technology team to find a home for the chemicals that remain.

Finalize an agreement for beneficial reuse of biosolids with 3xM Grinding in Olathe. This agreement is in place and construction of this new facility is underway.

Biosolids Thickening/Dewatering Technology Selection & Design. Telluride staff has taken over the task of selecting and designing a system for biosolids thickening/dewatering. The goal is to select a technology and depending on the price of installation, to install equipment in existing facilities by the end of this year. Since CleanB was not purchased, the \$1.4 million purchase price that was budgeted this year, could be used to speed up the design and installation timeline for biosolids thickening/dewatering.

Supplemental Oxygen Permitting & Design

Telluride staff has taken over the task of selecting and designing a liquid oxygen-based supplemental oxygen permitting system. A pilot system for spring 2019 is anticipated. Telluride staff will apply to CDPHE for pilot permit. If the system works as anticipated, then staff will work with CDPHE to obtain a site modification permit that increases the plant loading capacity for BOD.

Develop & Apply a New Septage Receiving Policy

Telluride staff is working to develop this policy, which is likely to be put before the Councils next month. The intention is to increase the price per gallon of accepting septic sludge and possibly port-o-john waste. Staff is also contemplating how to potentially recover costs for RVs and buses that use the facility.

Develop and Implement a new Industrial Pretreatment Permit Program

Telluride staff is working to develop this new program. The existing FOG Program (Fats, Oils, & Grease) is being folded into the IPP Program. To date, staff has been working with the following new or revising commercial businesses:

1. Telluride Tire (Lawson)
2. Telluride Brewing Company (Lawson)
3. Stronghouse Brew Pub (Town of Telluride)

Existing businesses that may be incorporated in the future include:

1. Smuggler Brew Pub

2017

2018

Administrative Tasks

1 CDPHE Nutrients Reg	\$ 10,000.00
2 CDPHE Permit Mod Rqst - Cu	\$ 2,000.00
3 Dec 31 Cu Rpt to CDPHE	in house
4 SMC DevPermit - CleanB	in house
5 Public Outreach	in house
6 Stantec PM & OH	\$ 25,950.00
7 CDPHE Permit Renewal Appl	\$ 2,700.00
8 Copper Compliance	\$ 39,442.00

1 Financial Analysis (1st Qtr)	\$ 65,000.00
2 Public Outreach	in house
3 New CDPS Permit (May 15)	\$ 15,000.00
4 CDPHE Apprvl Perm CleanB	\$ 8,000.00
5 CDPHE Apprvl SupplO ₂ Design	\$ 8,000.00
6 Land Acquistition Agreement	?
7 New Septage Receiving Policy	in house
8 Stantec PM & OH	\$ 60,550.00
9 IPP Agreement - TBC	\$ 5,000.00
10 IPP Agreement - TellTire	\$ 5,000.00
11 IPP Agreement - StrongHsBrw	\$ 1,000.00
12 SMC Dev Permit - PermCleanB?	in house
13 Copper Compliance?	\$ 88,400.00

\$ 80,092.00

\$ 255,950.00

BIOSOLIDS

1 CleanB Pilot Lease	\$ 59,000.00
2 CleanB Pilot Integration Design	\$ 61,398.00

1 CleanB Pilot Lease	\$ 28,000.00
2 Purchase CleanB?	\$ 1,400,000.00
3 Dewatering/Thickening Selection&Design	\$ 262,422.00
4 Biosolids Compost - 3XM	\$ 65,000.00

\$ 120,398.00

\$ 1,755,422.00

LIQUID STREAM

1 Alternative Layouts	\$ 15,000.00
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1 Supplemental O ₂ Design	\$ 221,900.00
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\$ 15,000.00

\$ 221,900.00

\$ 215,490.00

\$ 2,233,272.00