

**AGENDA  
ANNUAL PERSIGO MEETING  
CITY OF GRAND JUNCTION, CITY COUNCIL  
MESA COUNTY, BOARD OF COUNTY COMMISSIONERS  
CITY HALL AUDITORIUM  
250 N. 5<sup>th</sup> STREET  
GRAND JUNCTION, COLORADO  
THURSDAY, JUNE 25, 2015, 2:00 P.M.**

Chaired by County Commission Chair Rose Pugliese

- 1. Welcome and Introductions**
- 2. Purpose of Annual Joint Meeting of the Persigo Board**
- 3. 201 Boundary Adjustments – Requested Exclusion from the Persigo 201 Service Area:** Two property owners have made a request to have their properties at 979 23 Road and 995 23 Road removed from the Persigo 201 Sewer Service Boundary. In addition, Staff is recommending the exclusion of ten other properties in that vicinity. [Attachment](#)
- 4. Dry Line Sewer and Septic Systems in Lieu of Sewer Extension for Development of Ken Scissors Property at 323 Little Park Road:** Dr. Scissors was granted a variance to connect to sewer by the Joint Persigo Board in 2005, and approval of a preliminary/final plan, in February 2010, allowing installation of dry line sewer for future connection to the sewer system at the time it was available in Little Park Road. This approval lapsed with the subdivision approval after two years (+/- 2012). [Attachment](#)
- 5. General Reports:**
  - 2015 Budget Review [Attachment](#)
  - Orchard Mesa Sanitation District Dissolution
  - Septic System Elimination Program Update
  - Bio Methane Project Update
  - Anaerobic Digester Project Update
- 6. Other Business**
  - Discussion Regarding a Second Joint Meeting
- 7. Adjournment**

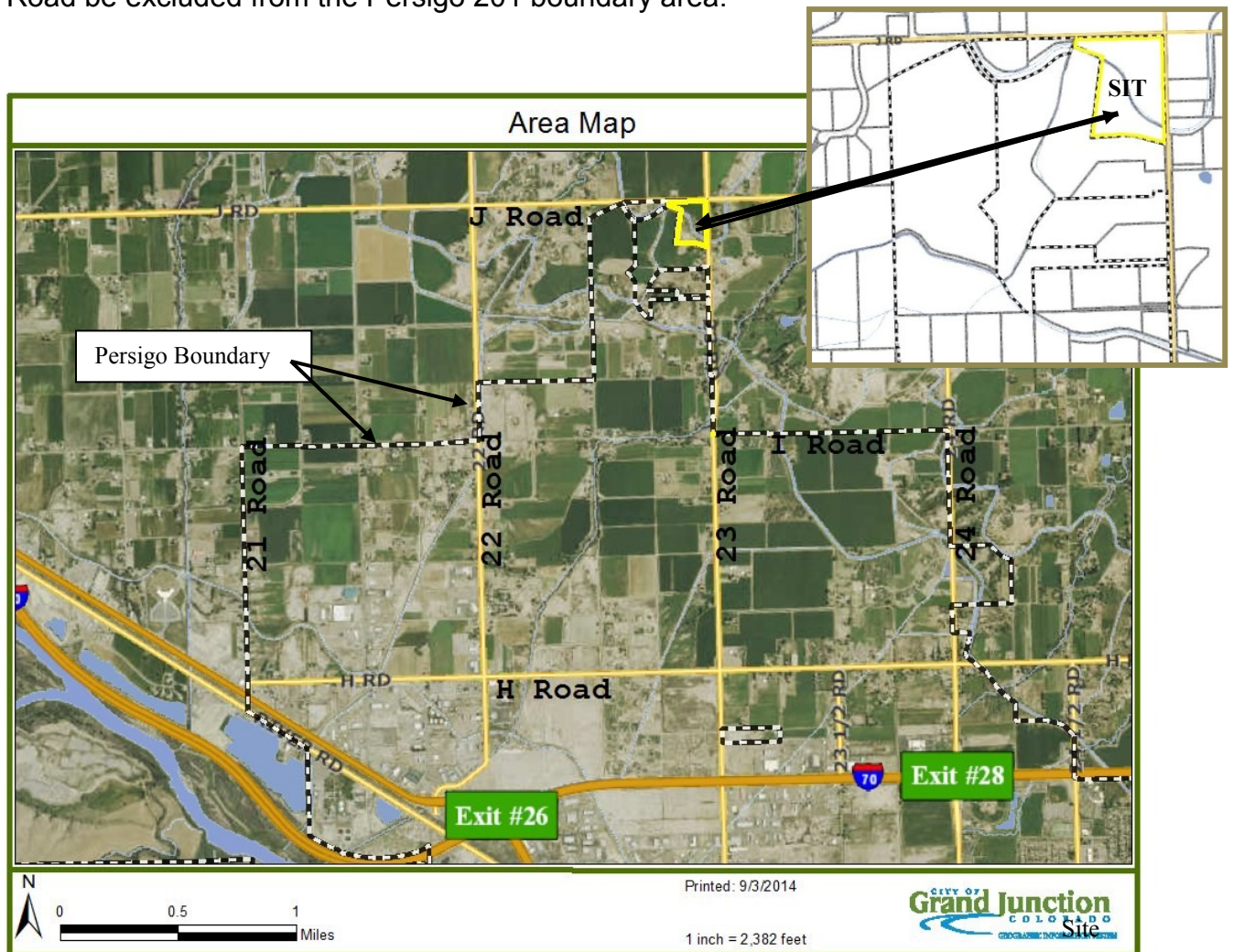
June 25, 2015

**Agenda Topic:** Requested Exclusions from the Persigo 201 Service Area.

**Action Requested:** Review and consider adjusting the 201 boundary at the June 25, 2015 Persigo Board Meeting.

**Project Description:** Two property owners have made a request to have their properties at 979 23 Road and 995 23 Road removed from the Persigo 201 Sewer Service Boundary.

The properties are shown with yellow border in the air photo below. Staff has consider this request and recommends that when considering current land use, proposed future land use, and recommendations included in the Comprehensive Plan that all 12 properties currently located north of the Highline canal between 23 Road and 22 ½ Road be excluded from the Persigo 201 boundary area.



**Background:** On September 18, 2012 the Persigo Board removed 5 properties located within this same area. At that time there were 17 properties north of the Grand Valley

Irrigation Company Highline Canal, north to J Road between 22 ½ Road and 23 Road within the 201 Persigo area. After removing 5 properties in 2012 there are now 12 properties remaining in the 201 boundary within this area.

**Area Map – 979 & 995 23 Rd requesting to be excluded within Persigo 201 Boundary**

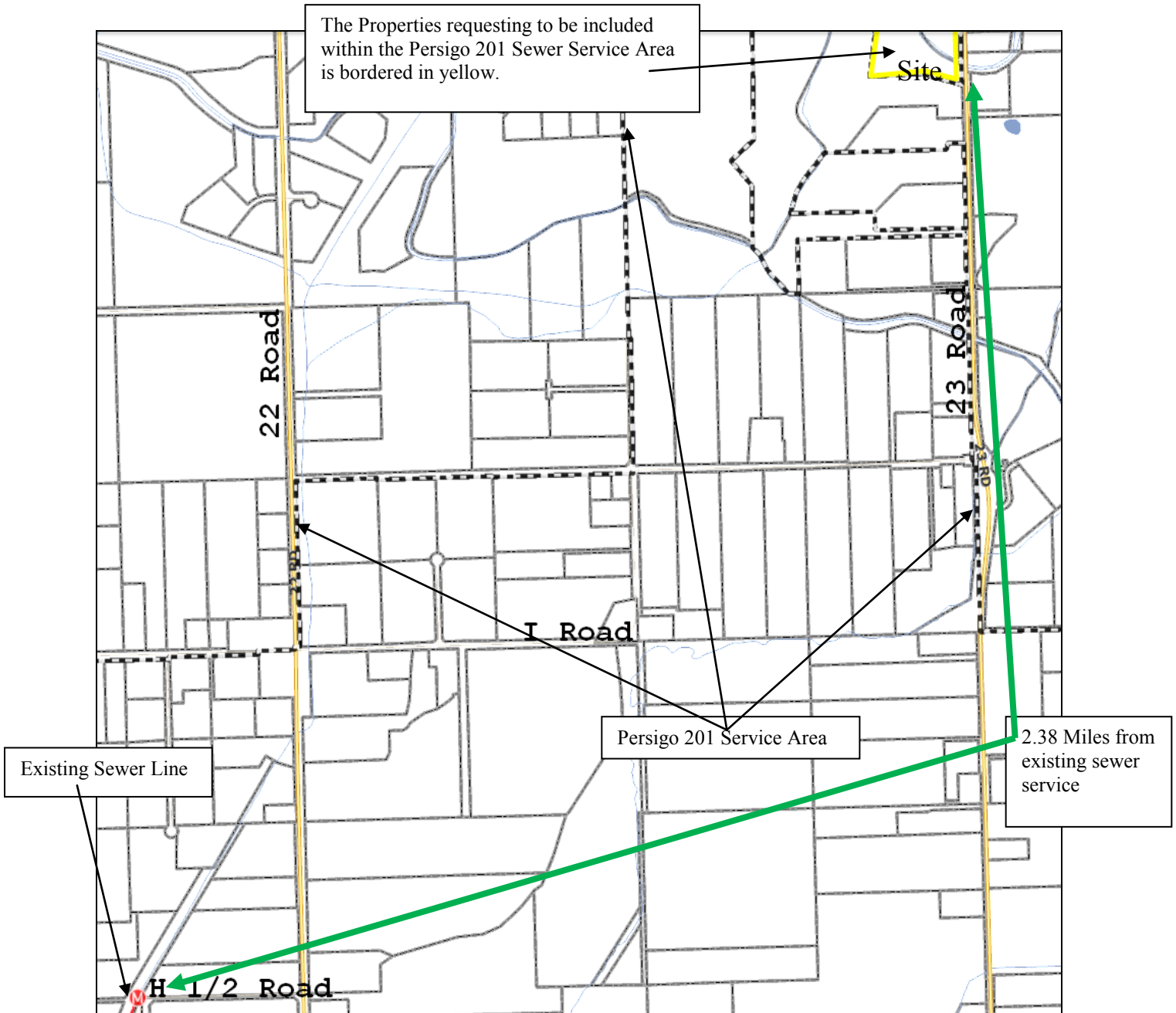


The following are the 10 other addresses of properties located north of the Highline canal that are highlighted on the map above.

- |             |             |             |             |
|-------------|-------------|-------------|-------------|
| 945 23 Road | 947 23 Road | 949 23 Road | 951 23 Road |
| 955 23 Road | 965 23 Road | 969 23 Road | 2269 J Road |
| 2273 J Road | 2277 J Road |             |             |

### 201 Boundary and Existing Sewer Service

The map below displays the current limits of the Persigo 201 Boundary and where existing sewer service is provided. The 2010 Persigo 201 boundary was last revised in this area during the 2012 Joint Persigo meeting. Sewer is currently located approximately 2.38 miles south and west of the subject area.



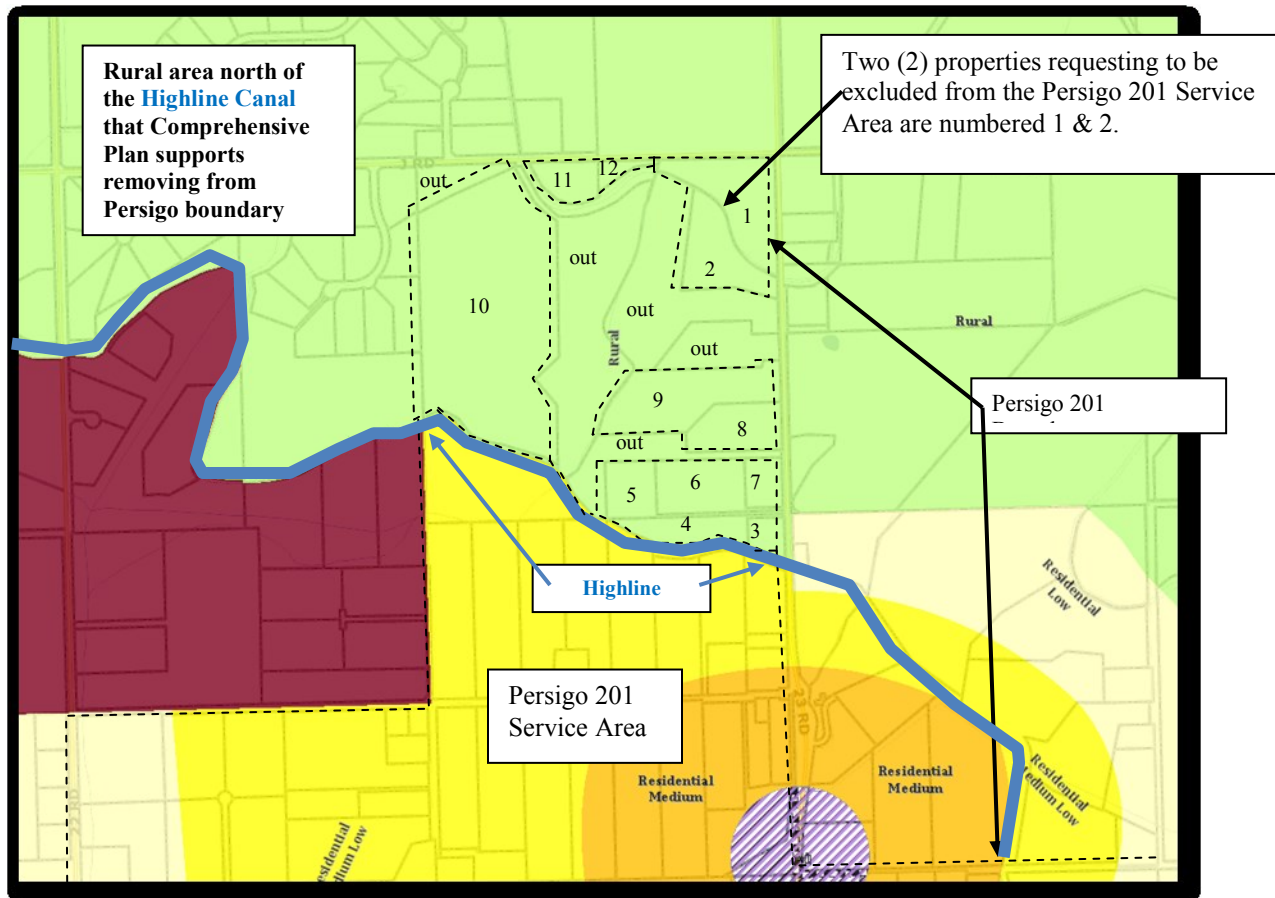
## Land Use Analysis - Zoning and Future Land Use

### Zoning:

The two properties together are 15 acres in size. The properties lie inside the 201 sewer service boundary and are located south of J Road and west of 23 Road in the northwest portion of the Persigo service area. Current Mesa County zoning for all of the area north of the canal is RSF-R (minimum lot size of 5 acres).

### Future Land Use Map:

The Grand Junction Comprehensive Plan Future Land Use Map identifies the site as Rural with rural residential densities of 5 to 10 acre lot sizes.



The Comprehensive Plan supports a sewer boundary that serves all land now and in the future needing sanitary sewer service due to the density or intensity of development allowed by the Comprehensive Plan and future zoning. There are 12 properties in this area that the Comprehensive Plan supports removing from the 201 sewer boundary. All other properties north of the Highline canal were either removed previously or never included within the sewer service area. The Public Notice mailed out to the neighborhood for this Persigo Board meeting included Staff's recommendation to exclude not just the two properties that are requesting removal, but all 12 properties. The notice listed each of the 12 properties by address (see box). Each property is labeled on the map by number.

1. 979 23 Road
2. 995 23 Road
3. 945 23 Road
4. 947 23 Road
5. 949 23 Road
6. 951 23 Road
7. 955 23 Road
8. 965 23 Road
9. 969 23 Road
10. 2269 J Road
11. 2273 J Road
12. 2277 J Road

**Recommendations:**

The existing and recommended future zoning for this area identifies land use based on rural densities. This is not consistent with the typically more urban areas that are included within the 201 boundary and supported by the Comprehensive Plan. Staff agrees that the two properties requesting exclusion from the 201 Boundary are located in an area that is not likely to be served by sewer in the future and not supported for urban development by the Comprehensive Plan, and therefore this request be approved.

Staff recommends that all 12 properties located in the area north of the canal, bounded by 22 ½ Road on the west, 23 Road on the east, and J Road on the north, be removed from the 201 Boundary for the same stated reasons. In addition to 979 23 Road and 995 23 Road, these 12 properties include the other 10 properties.

**Agenda Topic:** Requested Variance for Provision of Sewer within the Persigo 201 Service Area.

**Action Requested:** Review and consider a variance for the Scissors property at 323 Little Park Road at the June 25, 2015 Persigo Board Meeting.

**Summary:**

Dr. Scissors would like to develop land he owns at 323 Little Park Road. The land is currently located within the Persigo 201 service area. He is requesting a variance to utilize septic systems in lieu of connection to sewer.

**Background, Analysis and Options:**

Wastewater Regulations in the municipal code require all development within the 201 sewer service area boundary to be connected to the sewer system.

Sewer within *developing areas* is paid by the developer and constructed at the time of subdivision or development approval. If sewer is extended for the benefit of other properties, a sewer reimbursement agreement is provided to the developer to recover fees from future development.

Sewer within *developed areas* needs to be provided whenever practical, if an existing septic system fails and is within 400 feet of an existing sewer, and/or there is an expansion of an existing use. Currently, installation of sewer in developed areas is done via an improvement district and is typified by the current septic system elimination program (SSEP), managed by the City of Grand Junction.

This parcel is located within a future Septic System Elimination Program (SSEP) area R30. The proposed improvement district includes 84 lots based on current configuration. It should be noted that the Heather Ridge lift station would be eliminated as part of this SSEP project. Cost per lot should an improvement district form under SSEP ranges from \$7,800 low to \$12,000 high. This is estimated in 2015 dollars.

Sewer is currently located 2,075 feet north of this property. The estimated cost to extend sewer to the parcel is \$365,200 (\$176/lf). A reimbursement agreement could be initiated that would include approximately 21 lots (not including the petitioners lot). Estimated cost of reimbursement per lot based on 22 lots is \$16,600 per lot.

**Variance Request:**

Ken Scissors, owner of land located at 323 Little Park Road has requested that he be allowed to subdivide his property, construct septic systems, install dry line service connections, and agree to connect to sewer sometime in the future when it is constructed. This property is within the 201 Sewer Service Area boundary.

The issue before City Council and the Board of County Commissioners is:

City Council/ Board of County Commissioner decision on a variance from the wastewater Regulations that require new development to be connected to sanitary sewer at the time of development.

Generally, variances are considered when there is a failed septic system and the use is within 400 feet of an existing sewer. Conditions that need to be met to support a variance from the Wastewater Regulations are:

Low likelihood of an improvement district being created because of lack of neighborhood interest;

Sewer line is in a location with grades that would preclude it servicing other properties;

The location of the closest sewer is in a different drainage basin;

The installation of a pump station is disproportional to the costs of participating in a future improvement district.

The Joint Persigo Board has allowed variances to the sewer construction requirement on two occasions: a two-lot subdivision on Buffalo Court where sewer was some distance away and for the Ken Scissors property near Little Park Road (2005).

In the latter case, the undeveloped Scissors property is adjacent to a future sewer improvement district in a developed area that has been studied as part of the SSEP. As a condition of the previous variance, Scissors was required to install septic systems, to install dry line sewers, and to agree to participate in the future improvement district. In this case, connection to sanitary sewer was a reasonable certainty as there were existing residential uses that would pay for future sewer construction.

**Previously presented or discussed:**

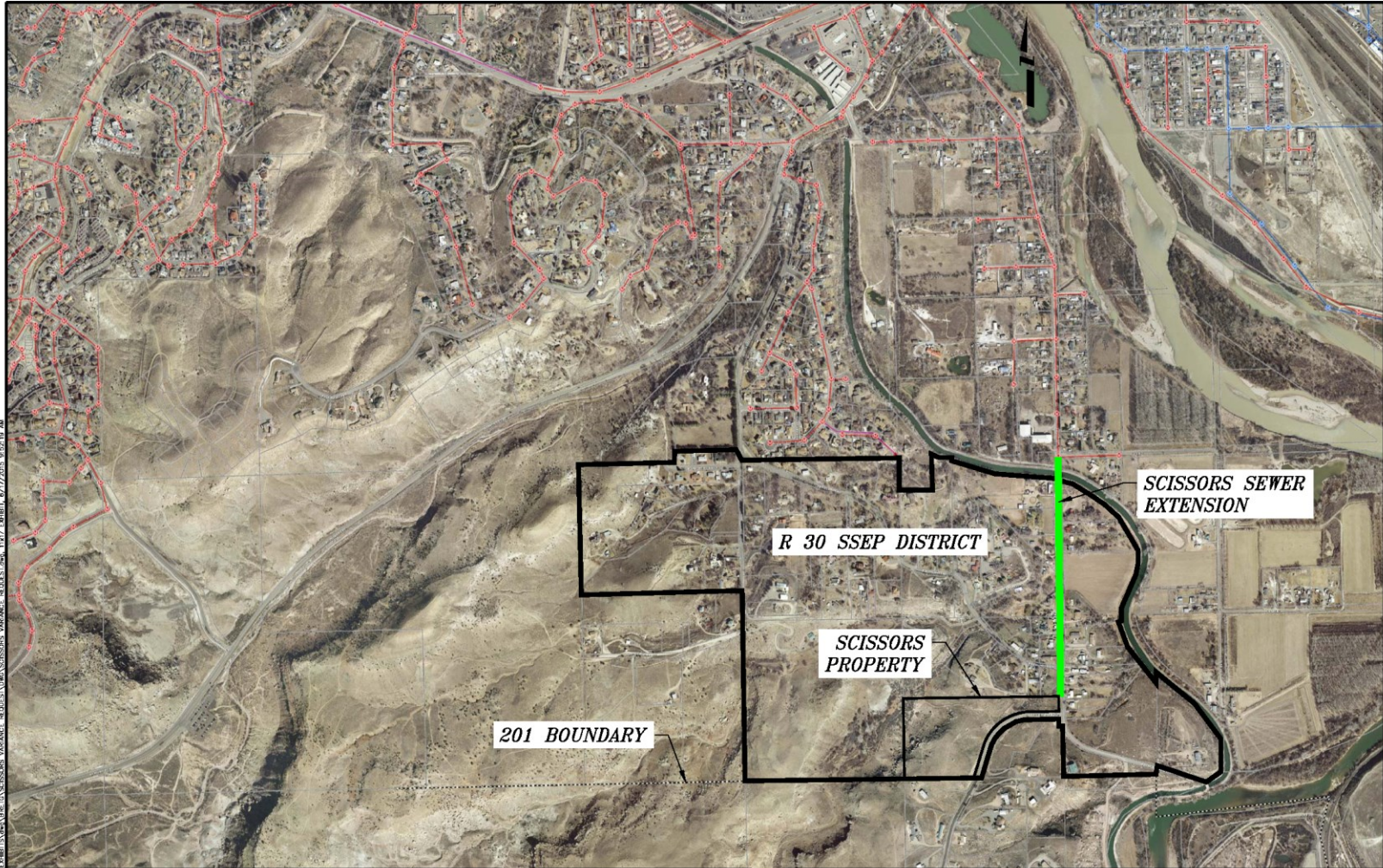
This variance request was previously considered by the Joint Persigo Board in 2005, a variance for connection to sewer immediately upon development of the property was granted by the joint board at that meeting. Approval of the variance was based on the requirement that dry line sewer be installed, and POA's be secured for the properties within this proposed development. This variance was conceptually tied to a development proposal which culminated with an approval of a Preliminary /Final Plan in February of 2010. The two year approval window to record the plat closed in 2012. Variance/exception approvals cannot remain open ended indefinitely and must be tied to an active development project.

Staff recommends approval of this variance.



**Attachments:**

Area Map



N:\Projects\148314\148314\_SCISSORS VARIANCE REQUEST.dwg SCISSORS VARIANCE REQUEST.dwg 6/17/2015 8:25:19 AM

REVISION	DESCRIPTION	DATE	DRAWN BY	HMC	DATE	2015
REVISION			DESIGNED BY		DATE	
REVISION			CHECKED BY		DATE	
REVISION			APPROVED BY		DATE	

SCALE:	PLAN	PROFILE
1" = 40'		



PUBLIC WORKS  
 AND UTILITIES  
 ENGINEERING DIVISION

SCISSORS VARIANCE REQUEST

# CITY OF GRAND JUNCTION WASTEWATER SERVICES DIVISION

BUDGET 2015

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## BUSINESS PLAN & SIGNIFICANT BUDGETARY ISSUES 2015 BUDGET



## **BUSINESS PLAN:**

### **Funds 902 - 906**

#### **HISTORICAL BACKGROUND**

The 201 Sewer System was created in 1979 by agreement between the City of Grand Junction and Mesa County and later supplemented by an agreement in 1980. By contract the City manages the sewer system.

The sewer service area was defined in the late 1970's, during which time the Persigo Wastewater Treatment Plant was under design. The 201 Sewer Service boundaries include most of the urbanized area in the central part of the Grand Valley. During 1998, the City and County re-negotiated the 1980 agreement.

#### **FUND DESCRIPTION**

##### Fund 902

Fund 902 is the operation and maintenance fund for the sewer system. Revenues assigned to this account are obtained through user fees (rates). These revenues are used to operate and maintain the system as well as pay for capital projects that are not related to growth, such as replacement or rehabilitation of aging collection lines.

##### Fund 903 Trunk Extension

The Trunk Line Extension Fund is used to extend trunk sewer collection lines into sewer basins where growth is anticipated. Revenues for fund 903 are generated by all properties in the sewer basin that benefit from the improvement. The City, as manager of the system, determines if trunk extension funds are warranted for a particular project based on certain value criteria.

##### Fund 904 Growth Related Capital

The 904 fund is comprised of revenue generated from Plant Investment Fees (PIF). PIF's are paid by those benefitting from the sewer collection and treatment facilities within the 201 sewer service area. The purpose of the PIF is to ensure that new connectors to the sewer system pay for their share of the treatment capacity they are utilizing. Revenues generated from PIF are only used to pay for system expansion projects related to growth.

## Fund 906 Sewer Improvement Districts

Sewer improvement district revenues anticipate that 40% of the properties in the district pay within the 30 day "pay in full" period upon acceptance of the improvement and notification of the formal assessment. The remaining 60% finance their proportionate share of the improvements over 10 years at 8%. Improvement districts included in this analysis have received a majority vote to legally form a district, the improvements have been constructed, and the County Commissioners, or City Council, have legally assessed the respective benefitting properties.

### **IMPACT TO THE WASTEWATER SERVICES SEWER FUND**

The Persigo Wastewater Plant is presently thirty one years old and systems installed in 1984 are due for replacement. Yard piping, aeration, sludge blending, roofing, and other major equipment have been replaced in recent years. These upgrades will continue and are budgeted in the Capital Plan. Because of an aging plant and the extreme operating environment, the portion of operating expense devoted to maintenance will increase.

Plant operation and maintenance (O&M) will focus on getting the most from resources purchased and consumed (manpower, chemicals, electrical power, natural gas, materials and supplies). Electrical and natural gas costs have increased dramatically and it has become important to identify ways to augment or reduce usage. Electrical consumption has been of constant interest to operators at the plant. Plant improvements like fine bubble aeration, lighting changes and automation of air feed systems and the addition of a 100 KW solar system have reduced consumption of purchased electricity and further energy conservation measures are being evaluated.

### **RATE REVIEW**

In 2006, the City authorized Red Oak Consulting to review sewer rates/fees and to complete an independent review of the Sewer Fund 10-year financial plan, its assumptions, and the adequacy of capital spending and allocation of rate revenue to the four areas of sewer service. Collection system operations and maintenance, collection capital, backbone operations and maintenance, and backbone capital have been adjusted to meet these recommendations. Historically a formal rate study has been completed every five years, however; it was agreed upon by the City Council and the Mesa County Board of Commissioners to postpone the anticipated 2011 study until a later date. The completion of a rate study was again requested during the preparation phase of the 2015 budget, and was approved. This study will be completed during the summer and fall of 2015.

The 2006 study recommended increasing the plant investment fee (PIF) to \$3,220 per EQU during 2006. As a result of direction received from City Council and the Mesa County Board of Commissioners, it was decided to incrementally increase the PIF by \$300 per year until the year 2013. During 2013 the PIF charge equaled the appropriate amount based on the financial calculation used by the consultant. After 2013, the PIF has been increased by 3% per year which represents the increase in the wastewater systems value. Plant investment fees for 2015 are \$4,244 per EQU.

### **RATE INCREASE FOR 2015**

	<b>2014</b>	<b>2015</b>
<b>Full Service Rate</b>	\$19.50	\$19.60

### **FUND BALANCE**

Fund balances in the Sewer Enterprise Fund are reserved for a number of capital and operating obligations. There are functions that are budgeted over the 10-year period, such as bond repayment, collection capital expenditures, Backbone Capital Expenditures and Trunk line Capital Expenditures. A portion of the fund balance is reserved each year for these purposes. The remaining, not reserved for debt repayment or capital, is designated as the Operation and Maintenance Expense Reserve Fund.

Minimum working capital is established at 25 percent of total operating expenses. Debt is excluded from this calculation because it is specifically reserved each year in the Fund Balance.

### **10 YEAR FUND STRATEGY**

In summary, the Sewer Fund over the next 10 years is prepared to:

- Fund collection system replacements.
- Fund Trunk line extensions into developing areas within the 201 service area.
- Assist self-funded improvement districts to replace failing septic systems and subsidize the cost of construction by 30 percent.
- Resolve the problem of excessive infiltration into the sewer system from the special sanitation districts.
- Respond to increasing requests to amend the 201 Sewer Service Area as urbanization continues.

## **2015 Budget**

### **Collection System Projects**

#### **Fund 902-F0015 Interceptor Rehabilitation**

Budget Amount: \$819,545

Staff originally planned to focus this project effort on the River Road interceptor sewer line next year. The original intent was to have a two year project that would have started in the fall of 2015. With a one year budget, policy makers would be committed to approving a project prior to budget being approved. With that in mind, staff has delayed the project and will propose carrying forward this years budgeted funds to next year. The larger project is now planned for winter/spring of 2016.

#### **Fund 902-F0016 Sewer Line Replacements**

Budget Amount: \$2,380,655

The above listed expenditure reflects anticipated costs to complete annual sewer line replacements. During 2011 staff established a time line for changing out all of the sewer collection system that was beyond its design life in the next 40 years. In order to accomplish this goal on average 5.4 miles of sewer pipe must be replaced annually. In addition to the condition of the pipe, the location of sewer line replacements is driven by the street maintenance program or street reconstruction schedule.

#### **Fund 902-F0017 Alley ID Sewer Line Replacements**

Budget Amount: \$267,155

This budgeted amount is for the replacement of sewer lines in conjunction with possible Alley Improvement District (AID) projects. This effort is included in the overall total footage of pipe to be replaced annually. If an AID is not formed these funds will be rolled into the annual sewer line replacement project. For 2015 this is included in the F0016 Sewer Line Replacement project.

#### **Fund 903-F0924 Trunk Line Extension**

Budget Amount: \$0

2015 proposed budget does not include any Trunk Line Extension projects. There is a possibility of a request later this year that may require supplemental appropriation.

### Fund 904-F004500 Effluent Diffusor Design

Budget Amount: \$150,000

The 2015 budget includes \$150,000 for the design of an effluent diffusor that will allow the Persigo facility to discharge directly to the main stem of the Colorado River. In doing so the treatment facility will be required to meet less stringent effluent limitations and avoid costly plant upgrades in order to meet impending effluent limitations.

### Fund 904 – Collection System Office (Facility Acquisition)

Budget Amount: \$560,000

The 2015 budget includes \$560,000 for the purchase of Fire Station #4 on Orchard Mesa, to be utilized as a remote collection system office. Purchase of this facility would allow for more rapid response to sewer collection system emergencies. The facility is centrally located to provide ready access to both the old Central Grand Valley Sanitation District service area and the Orchard Mesa area.

### Fund 906-F0034 Septic System Elimination Program

Budget Amount: \$20,000

The septic system elimination program (SSEP) was established by the joint board in 2001 in an effort to facilitate connection to the Persigo sewer system for properties served by septic systems. The program identifies that Persigo will participate in this effort by paying 30% of the cost to provide a sewer service connection with a stub to the property line within the 201 service area. There is one SSEP project currently under way that was not anticipated during the 2015 budget process. This District falls under the Mesa County Local Improvement District process and is estimated to be \$110,000. The project was presented to both City Council and County Commissioners by staff prior to moving forward with the project, with the understanding that the funding would be included with a supplemental appropriation this spring. The original \$20,000 will remain available for single property SSEP efforts as it has been in recent years. There are individual properties from time to time that ask for Persigo participation in abandoning existing septic systems within the 201 service area.



## **Treatment Plant Projects**

Fund 902-615-620-380-8430; Total Budget Amount: \$2,288,177

The plant backbone projects proposed for 2015 are summarized below:

### **Primary Clarifiers Rake Rehabilitation - \$300,000**

The Primary Clarifier system is used to remove sludge from the primary clarifiers. The rake system is made of angle iron and coated with a protective epoxy finish. After thirty years of operating, the rake system and catwalks in both clarifiers need to be sandblasted, repaired and recoated.

### **Motor Control Center Replacement - \$389,000**

The Aeration Basin, Anaerobic Digester and Sludge Processing Motor Control Centers (MCC) need to be replaced. These electrical components supply electricity to each of the above listed buildings. The existing equipment is thirty one years old, corroded, and beyond repair. In addition, replacement parts are no longer available for the existing equipment. Replacing the MCC units has been an ongoing effort and the above listed buildings are the last to be replaced.

### **Total Suspended Solids (TSS) Meters for Aeration Basins - \$60,000**

It is anticipated that the discharge permit issued by the State of Colorado will become more stringent upon renewal during 2016. The requested TSS meters will allow operational staff to gain additional control of the treatment process and meet the impending limitations.

### **Two Transformers @ CL2 Building - \$35,000**

There are two existing transformers located next to the chlorine building that are leaking oil need to be replaced.

### **Drying Bed Rehabilitation - \$20,000**

The Sludge Drying Beds are equipped with two pumping stations. The pumping stations are severely rusted and need to be repaired.

### **Right-of-Way Hose Machine - \$60,000**

The Right-of-way hose machine will be used by the collections system staff to clean sewer lines in areas where the manhole is not accessible to the large sewer jetting truck.

### **Anaerobic Digester Lid Rehabilitation - \$736,500**

The existing Primary Anaerobic Digester Lid is constructed of metal and has been in operation for over thirty years in a very harsh environment. During routine cleaning it was determined that the lid was in need of repair. In order to facilitate the repair the sixty foot lid will need to be removed from the tank using two large cranes and placed on the ground. Once on the ground the metal structure will be sandblasted, repaired and recoated prior to placing back into service.

### **Miscellaneous pump/valve/component replacement - \$220,000**

This money is earmarked for possible unforeseen equipment failures within the plant site. There are approximately 400 pieces of equipment, 1,200 valves, and several miles of piping located within the Persigo waste water plant. Maintaining this equipment and piping in good condition is critical to the process of treating waste water. Some of these components are more than 30 years old. Even with routine maintenance, there is the possibility of unforeseen failure of one of these components. Often, the equipment needs to be repaired or replaced as quickly as possible.