

**CITY OF GRAND JUNCTION
CITY COUNCIL
And
BOARD OF COUNTY COMMISSIONERS FOR MESA COUNTY
SPECIAL MEETING
A G E N D A
THURSDAY, APRIL 24, 2003 1:30 P.M.
TWO RIVERS CONVENTION CENTER, 159 MAIN STREET**

JOINT PERSIGO MEETING

Meet at 1:30 p.m. at Two Rivers for Tour of Area around 21.5 and H Roads and 22 and H Roads – meeting will be at Two Rivers following tour at approximately 2:30 p.m.

1. **REVIEW OF PREVIOUSLY APPROVED MINUTES OF OCTOBER 14, 2002** [ATTACHMENT 1](#)

2. **SEWER VARIANCE PROCEDURE:** Change to the Wastewater Regulations regarding a variance procedure in residential areas. Staff: Mark Relph, Public Works & Utilities Director [ATTACHMENT 2](#)

3. **REQUEST FOR DE-ANNEXATION AND 201 BOUNDARY CHANGE:** Doyle Files has requested exclusion from the 201 District. Staff: Greg Trainor, Utilities Manager, and Bob Blanchard, Community Development Director [ATTACHMENT 3](#)

4. **PROJECT UPDATES:** [ATTACHMENT 4](#)
 - a. Bio-solids. Staff: Pete Baier, Mesa County Public Works
 - b. Grease and Septic Waste. Staff: Greg Trainor, Utilities Manager
 - c. Central Grand Valley, Orchard Mesa and Fruitvale Special Sanitation Districts. Staff: Mark Relph, Public Works & Utilities Director
 - d. Clifton Sanitation District #2. Staff: Mark Relph, Public Works & Utilities Director

5. **201 BOUNDARY ADJUSTMENT:** Request to adjust boundary in the 21.5 and H Road and 22 and H Road areas. [ATTACHMENT 5](#)

6. **PROCEDURAL ISSUES WITH THE PERSIGO AGREEMENT**
[ATTACHMENT 6](#)
7. **AGENDA FOR THE ANNUAL PERSIGO MEETING IN JULY**
8. **OTHER BUSINESS**
9. **ADJOURN**

**Attachment 1
Minutes**

**City Council/Board of County Commissioners
Annual Persigo Meeting
Monday, October 14, 2002
Two Rivers Convention Center**

The Annual Persigo Meeting with the City Council and the Mesa County Commissioners was called to order by Chair Kathy Hall and President of the Council Cindy Enos-Martinez on October 14, 2002 at 7:13 p.m. at Two Rivers Convention Center. Grand Junction City Councilmembers present were Dennis Kirtland, Harry Butler, Bill McCurry, Reford Theobald, Janet Terry, Jim Spehar and President of the Council Cindy Enos-Martinez. Mesa County Commissioners present were Doralyn Genova, Jim Baughman and Chair Kathy Hall.

City staff members present were City Manager Kelly Arnold, City Attorney Dan Wilson, Public Works & Utilities Director Mark Relph, Community Development Director Bob Blanchard, Assistant City Attorney John Shaver, Police Chief Greg Morrison, Principal Planner Dave Thornton, Wastewater Treatment Plant Manager Mike Robertson, Utilities Manager Greg Trainor, Environmental Coordinator Eileen List, Utility Engineer Trent Prall, Planning Manager Kathy Portner and City Clerk Stephanie Tuin.

County staff members present were County Administrator Bob Jasper, Planning Director Kurt Larson, Director of Land Use Planning Linda Dannenberger, Public Works Director Pete Baier, Assistant County Administrator Jon Peacock, County Attorney Lyle Deschant, and Clerk to the Board Roberta Raley.

Also present: Larry Beckner, Special District Attorney.

Introduction of New Wastewater Director

Utilities Manager Greg Trainor introduced the new Wastewater Treatment Plant Director Mike Robertson.

Requested 201 Sewer System Boundary Changes

Public Works & Utilities Director Mark Relph identified the two areas that are to be considered for addition to the 201 district.

Doyle and Sandra Files Request

Mr. Relph deferred to Utilities Manager Greg Trainor and Community Development Director Bob Blanchard regarding the inclusion of Doyle and Sandra Files property. The Files are asking for de-annexation. They are south of Monument Road and would

probably never be sewerred. There is a tiny piece of the property north of the 201 boundary line. Mr. Blanchard stated the entire property is 35 Acres with two acres in the 201 Sewer Service Area. City Code requires any property developed in the 201 needs to be sewerred. That would include any lot splits. Variances within the 201 boundary were discussed briefly with a variance based on both the availability and practicability. The regulations do address the “practicability in the opinion of the manager.”

Councilmember Jim Spehar asked about the 33 acres, whether it matters since it is outside the 201 boundary. Mr. Trainor said since there is only a small portion outside of the draw that can be developed, probably not. Assistant City Attorney Shaver stated that the Persigo Agreement contemplates that it would not matter, if it is developed it must be sewerred. He suggested the Council consider allowing unique exceptions for residential development as there is currently for non-residential development.

Councilmember Terry asked that she be provided a copy of the letter from the Files as it was not attached to the report.

Councilmember Theobald suggested that they not remove just the one two-acre site, but instead consider removing the whole drainage basin. Commissioner Genova asked how many other properties are in that area currently in the 201 boundary. Mr. Trainor identified one area just below the golf course. Councilmembers asked for a more specific analysis of other affected properties at another meeting with Councilmember Spehar noting he would like to restrict that property from any urban development. The general consensus was to leave it as status quo but it will be considered further at another meeting with additional information being provided.

Gay Johnson Request

Kurt Larson, Director of Planning for Mesa County, addressed the Gay Johnson addition in the area of 794 22 Road, north of H Road. Some of the areas are already developed as commercial (PUD) He reviewed the zoning, the land use classifications and the actual build out. He recommended that they be included in the 201 and ultimately annexed into the City. The areas to be considered are on 21 ½ Road, identified in red with some being north of H Road, some are south. Commissioner Genova suggested a site visit before any decision is made. Commissioner Baughman asked if the zoning occurred in the late 70’s. Mr. Larson responded yes, the majority of the zoning occurred then. Council President Enos-Martinez suggested another meeting date to discuss the Files and Gay Johnson properties. Councilmember Spehar suggested that property owners be approached first and their input be solicited. Mr. Larson added that the property owners should also be invited to the meeting where it is discussed.

Councilmember Theobald asked what issues will be considered for the decision. Mr. Larson suggested such things as roads, drainage, and capacity.

Commissioner Baughman asked if there is any reason to include the area between 22 and 23 Road, north of H Road. Mr. Larson said no, three of the areas are on 21 ½ Road and two of the areas are south of H Road, one area is at 22 Road and one is at 23 Road.

The governing bodies discussed a joint site visit prior to the next meeting.

Sewer Variance Requests

As this is related to boundary changes, variance requests were discussed. Public Works & Utilities Director Relph expressed concern over a decision that was made regarding a sewer variance. A large residential piece of property (Statler) requested a lot split. It was in the 201 Sewer Service Area and the petitioner requested a variance to hooking up to the sewer system. The Zoning and Development Code did allow a variance procedure and a variance was granted to split and use septic. However, the sewer regulations provides that new residential development must be sewer, only non-residential can be excepted yet the Persigo Agreement conflicts with the regulations. Therefore, Staff is suggesting a change to the City sewer regulations to make this clear and allowable for residential. Mr. Relph suggested the insertion of the word “residential” into the regulations or else provide that such requests be brought up for review at a joint meeting of the two governing boards. According to Mr. Shaver, the Persigo Agreement is administered by the regulations and therefore it would not be necessary to make a change to the Persigo Agreement to make the two documents correspond.

Bob Jasper, County Administrator, stated that a possible error does not necessarily mean the change should be made to the policy (regulations). He thought the City should just let it go. Councilmember Terry felt the regulations need to be consistent and it is a simple fix. Councilmember Kirtland thought the decision for the variance on the Statler property was a practical decision based the sewer being over 400 feet away (400 foot rule).

However, both governing boards were generally agreeable to adding the two words “and residential” to the City sewer regulations.

Septic System Elimination Project (SSEP) Update

Utilities Manager Trainor updated the two bodies on the septic system elimination project. So far 13 districts have been formed; the program has been an enormous success. The program has assisted 7 districts with funding. Through a loan from the Colorado Water Resources and Power Development Authority, funding to benefit 589 properties has been acquired, allowing acceleration of the program.

Combined Sewer Elimination Program Update

The project to eliminate the combined storm and sewer system is being designed and loan funds are in place. Construction is scheduled for early 2003.

Council President Enos-Martinez asked if any of the new lines will be affected by the Riverside Bypass. Utility Engineer Prall said the project engineers are coordinating with the Riverside Parkway group. One small area might be affected depending on the final alignment of the roadway.

Temporary Modification to the Persigo Wash Water Quality Standards

Stream standards have a potential impact on Persigo Wash and may require modification to the system that will be very expensive. The City is making an argument over the new stream standards. The Colorado Water Quality Control Commission is taking the argument into consideration and meanwhile the Grand Valley Selenium Task Force is evaluating the situation. The temporary modification work will allow time for the development of appropriate and attainable stream standards for the Wastewater Treatment Plant.

Environmental Coordinator Eileen List has developed a plan and the City will have until 2008 to collect data and file a standard suggestion. Staff wants to make sure that any requests for additional funds to meet these standards in the future are justified.

Councilmember Theobald inquired as to the daily discharge of the plant. Ms. List replied 8 million gallons per day.

Clifton Sanitation Districts #1 & #2

New regulations will require treatment of the effluent from Clifton Sanitation District's lagoons. Therefore, the District is desiring to either construct a treatment plant or hook up to Persigo Wastewater Treatment Plant. Clifton's engineers have to study and decide the best plan. They are aware that the Clifton area is not within the 201 boundary. Staff stated that hooking up to Persigo will probably be more expensive than Clifton building their own plant.

Councilmember Terry expressed that annexation is the biggest and most important issue and said City staff should do no more than answer questions from the Clifton Sanitation District. She voiced concern that the City is should not be characterized as trying to force the area into annexation. She had grave reservations about the City being able to provide services to that area. She asked that Council be kept apprised of any additional meetings with the District.

A brief discussion took place on capacity gain with the elimination of the Clifton area versus loss with their re-inclusion.

Backbone System Capital Improvements and Volume Based Flow Rates Relative to Central Grand Valley and Orchard Mesa Sanitation Districts

The issue of infiltration within the Special District Sewer Systems was discussed and what role the Joint Sewer System should play in solving the problems with those systems. Much of the problem stems from the different definition of what constitutes the “backbone system” of the Joint Sewer System. Inclusion of more area that lies within the special district boundaries would have a great financial impact on the Persigo budget.

Larry Beckner, attorney for the Special Districts (Orchard Mesa Sanitation and Central Grand Valley Sanitation), stated the districts were opposed to the City using the backbone funds to cure infiltration within the City and they also objected to any increase in the City tap fee. Their argument is that both districts have paid into the joint backbone fund yet have not be granted any funding for their use on the backbone system within their district. Through discussions an agreement was developed to use the fees and also raise tap fees however, the districts wanted a chance to participate in the budget process and that has not happened. There are number of financial and contractual issues to be resolved. The districts want some funds but were not invited to the budget process discussions. Persigo bills districts for flow but then does not let the districts use some of the funds to solve their infiltration problems. He asked the two boards to give him and Mr. Relph a six month deadline to solve the problem.

Mr. Beckner noted that the districts have been working on their problem and have spent over \$2 million in repairs and system improvements.

County Administrator Jasper advised that the County supports the recommendation and asked the Mayor participate in the problem solving efforts. Councilmember Theobold noted that he wants to be fair about how the system is administered, but cautioned that the special districts are customers just like citizens and other governments, they are not plant owners.

Mr. Beckner said the districts simply want to submit a request for funds during the budget review process. Commissioner Genova said infiltration is a problem and all need to work together to solve the problem.

City Manager Arnold concurred with the recommendation but noted the governing bodies need to consider the life expectancy of the districts. County Administrator Jasper echoed the City Manager’s comments, adding that it is in the plant’s best interest not to have to take over a bankrupt, leaky system. He said they need to start talking to Fruitvale Sanitation District, which is the worst off and almost all in the city limits.

Biosolids Issue

Staff advised the County has monitored for methane when effluent is disposed of at the landfill and has reported to the County Commissioners that the effluent is problematic due to the methane production. The City was unaware that it was a problem prior to the report. The effluent that comes from Persigo is gel-like and has to be managed with the equipment built for true solids. The City acknowledges the effluent is a contributor to the methane problem as is the rendering plant closure because of the animal waste coming to the landfill. Staff wants to come back with recommendations in around six months (April 15th) that will settle the issue of disposal for the long-term which may include alternative disposal sites.

Interest Rate for SSEP Improvement Districts

Bob Jasper, County Administrator, advised that the standard interest rate has been 8%. However, with the current interest rates, it is suggested that the rate being charged to property owners in improvement districts be lowered to 6%, apply to anything in process, not retroactive. The County Assessor was charging a premium for assessing these districts but won't be in the future.

Grease and Septage Receiving Facility

Utilities Manager Greg Trainor advised that the treatment plant is rapidly reaching maximums on receiving grease. Staff has been looking at other ways of disposing of grease. One possibility is privatizing the collection and disposal of the grease.

Utility Engineer Prall stated that there is currently only one private site, the Goodwin site in Delta, that accepts grease but there is a possibility of a new site coming on-line in the Grand Junction area.

Commissioner Baughman asked if there is a requirement for Persigo to accept and treat septic clean-out waste (septage). Mr. Prall answered that while not a requirement, Persigo is the closest plant. Septage is some cause for concern as it is a concentrated load, but the grease loads are the real issue.

Public Works & Utilities Director Relph advised that Staff has looked at what others do and most treatment plants won't take grease and septic waste. It is really a policy issue. A change in policy will affect local restaurants as a private disposal site will be more expensive. However, once a "sheen" is on the Persigo discharge, that constitutes a violation and Persigo is getting close. Private haulers want both grease and septic waste so if a policy change were to be made, it should include both types of waste.

The Commissioners and Councilmembers directed Staff to bring back information as to what other communities are doing and what the private costs are for disposal of grease and septage. Once that information is provided to the elected officials, then restaurant owners should be brought into the discussion.

City Managers and County Administrator's Update

City Manager Arnold and County Administrator Jasper have agreed to a fee to be charged for overhead costs of running Persigo, that is, costs associated with the enterprise fund. The City had proposed a flat 5% fee whereas the County preferred a formula based on a federal program for O & B (A-87 cost overhead allocation plan). Because the sewer fund is so stable, that formula works well and only varies from the 5 % overhead charge slightly.

Councilmember Theobold voiced concern over the staff time necessary to develop and calculate the A-87 formula. City Manager Arnold advised that the formula is in a spreadsheet so it is just a matter of dropping in the numbers to calculate the dollar amount.

Other Business

Commission Chair Kathy Hall distributed a letter from the Associated Governments of Northwest Colorado (Jim Evans) as to the results of the NW Colorado Oil and Gas Forum efforts to improve the reporting to the State that results in severance tax payments. The oil and gas companies had not been reporting the total number of employees due to a misunderstanding of the definition of an employee versus a contractor. The result of the improved reporting was an additional \$1 million in severance tax distributions in 2002 to both counties and municipalities in northwest Colorado.

Drought Update

Chairwoman Hall, who serves on the Colorado River Water Conservation District board, reported the ways they have tried to best manage water with the drought situation this year. They bought the energy from Redlands Water & Power and made a lot of exchanges, in an effort to keep water in the ditches. The District is 280,000 acre feet in the hole at Green Mountain, and there are problems with the surrounding development. The District was asking the Bureau of Reclamation to participate in the filing of a lawsuit against the Northern River District but now the District needs to negotiate with them to address those development problems.

The District has a question on the ballot for an additional mill levy to pay for additional water storage to protect the water sources in future years in the case of drought. The monies from the mill levy will be used to reinforce the banks of existing reservoirs so their storage capacity can be increased, buy some existing government water and have

it in storage and to comply with water quality issues. The monies will not going for additional staff. She encouraged everyone to vote for in favor of it. She added that the additional mill levy can also be used for leverage for other funding such as grants.

Utilities Manager Greg Trainor advised that the municipal water supply for drinking, which is different from irrigation, is in good shape this year. They are monitoring the snow pack and have been talking about different levels of drought response. Due to the City's water supplies and rights, even two more years of dry conditions would not be a crisis. Clifton and Ute Water systems are also in good shape. He stated he will report more later as different drought scenarios are developed but advised that in his opinion if the City were ever in a situation where restrictions were needed it would be a conservation rate applied only for outside uses.

Commissioner Baughman inquired how much of the City supplies are going toward outside uses. Mr. Trainor said exact numbers can be generated through the metering systems but in general the summer peak demand is 12 million gallons versus 3 million gallons in the winter.

Next Meeting

The date for the next meeting was determined to be November 14 at 6:00 p.m. to discuss the 201 boundary changes relative to the Files and Gay Johnson properties and to discuss variance criteria.

Introduction of Assistant County Administrator

County Administrator Jasper introduced the new Assistant County Administrator Jon Peacock.

Adjourn

The meeting adjourned at 9:47 p.m.

Stephanie Tuin, CMC
City Clerk

OCTOBER 14, 2002

CALL TO ORDER

Chairman Kathryn H. Hall and Mayor Cindy Enos-Martinez called to order the Annual Joint Persigo Meeting of the Grand Junction City Council and the Mesa County Commissioners at 7:00 p.m., in the Whitewater Room, Two Rivers Convention Center, 159 Main Street, Grand Junction, Colorado. Those in attendance were Commissioners Doralyn B. Genova and James R. Baughman; Robert Jasper, County Administrator; Lyle Dechant, County Attorney; Jon Peacock, Assistant County Administrator; Kurt Larsen, Planning and Development Director; and Roberta Raley, Clerk to the Board. Those in attendance from the City of Grand Junction were Council Members: Bill McCurry, Harry Butler, Janet Terry, Reford Theobald, Jim Spehar, and Dennis Kirtland; Kelly Arnold, City Manager; Bob Blanchard, Community Development Director; and Stephanie Tuin, City Clerk. (Minutes transcribed by Roberta Raley, Clerk to the Board.)

WASTEWATER SUPERINTENDENT.

Greg Trainor, Grand Junction Utility Manager, introduced Mike Robertson, the new Wastewater Superintendent for the Joint Sewer System.

201 SEWER SERVICE AREA BOUNDARY CHANGES.

DOYLE AND SANDRA FILES (CITY REQUEST)

Presenters: Mark Relph, Public Works Director; Greg Trainor, Utilities Manager; and Bob Blanchard, Community Development Director

On September 9, 2002, Doyle and Sandra Files requested to de-annex. A small portion (approximately two acres) of this property lies within the Persigo Boundary and the larger portion of the property is outside of the Boundary. The closest sewer downstream from this property is 8,600 feet and there is limited developmental ability for the property as most of it is in No Thoroughfare Canyon. It was not likely that the area would ever be sewered as there are several large parcels of land nearby that are owned by either the City of Grand Junction, Mesa County, or the BLM and would most likely never be developed. If the property is left within the City Limits the City can issue a variance for the sewer and allow for the development of the two acre portion, which would not violate the Persigo Agreement. It was questioned if the variance would be based on availability of the sewer or practicality of the sewer. City Staff related that both availability and practicality would be used in the variance and this was for residential development. Reford Theobald questioned if there were more parcels in

that area along Monument Road and South Redlands Road that could be considered a drainage basin that would or could be taken out of the 201 Boundary rather than moving the boundary for one 2-acre parcel.

Staff was directed to study this matter and bring it back to the group.

GAY JOHNSON ADDITION (COUNTY REQUEST)

Kurt Larsen, Mesa County Planning Director, discussed the area of H and I Road between 21 and 23 Road and the area along 22 Road south of H Road. The area along 22 and H Road is out of the 201 Boundary. He related that is a commercial or industrial area and actually should be annexed into the City. Kurt discussed the zoning of the area and was requesting that the two staffs study this area. Commissioner Genova suggested a tour of the area to actually see what was on the ground as a majority of the zoning was put in place in the early 80's. Jim Spehar related there would need to be discussions with the property owners for input on changing the 201 boundaries. Reford Theobald related that staffs needed to research the current use, future use, and the drainage basins and to present that information at a joint meeting. Kurt Larsen related that he would organize a tour of the area for the City Council members and the Board of Commissioners.

SEWER VARIANCE PROCEDURE

Mark Relph related that the City had made a mistake in issuing a sewer variance on Buffalo Drive. The City Council approved a lot split gave and gave variances to the parcels for two septic systems as these were very large lots. The City Sewer Regulations require any new residential development has to be sewerred. Mark noted that the City Sewer Regulations preceded the Persigo Agreement and the City would like to clarify the regulations by inserting the verbiage of "residential development". Commissioner Genova related that if the matter could be taken care of by modifying the sewer regulations to include the verbiage of "residential development" the simpler the better.

SEPTIC SYSTEM ELIMINATION PROGRAM AND COMBINED STORM SEWER ELIMINATION PROJECTS.

Presenter: Greg Trainor, Utilities Manager

The Septic System Elimination Program was established in May of 2000, by the Mesa County Commissioners and the Grand Junction City Council. There were seven sewer improvement districts created benefiting 244 properties and have been completed;

presently there are six districts benefiting 589 properties either under design and/or construction; and there are another eight districts in the planning stages benefiting an additional 364 homes. The original plan was to develop and construct the services over a ten year time frame. The demand has been so great that all this has happened within two years.

The Combined Storm Sewer Elimination Program is presently under design, there is approximately \$8.5 million from the Water Power Authority funding for this project. The first phase of this project for installation in 2003 will involve 25,000 feet of new water lines and the installation of approximately 5,000 feet of new storm sewer pipelines in the old part of downtown. Cindy Enos-Martinez questioned if any of these lines that were being replaced would then again have to be re-replaced if the By-Pass was constructed in that area of the City? Trent Prall, City Utilities Engineer, related that the design was being coordinated with the engineering of the By-Pass in hopes that the infrastructure would be compatible. With the latest design one of the water quality basins may have to be relocated.

BRIEFING ON “TEMPORARY MODIFICATION” ISSUE AT PERSIGO WASH.

Presenter: Greg Trainor, Utilities Manager

Greg Trainor related that in December of 2000, the State of Colorado proposed Stream Standards for the Colorado River and the tributaries leading into the Colorado River. These proposed Stream Standards have a potential impact of effecting the Wastewater Treatment Plant, the treatment processes, and the ability to treat with the current designed system. The proposed standards have a potential of requiring the modification of the system. The Water Quality Control Commission gave the City of Grand Junction, as the joint system, a temporary modification until 2008. This gives the group until 2008 to work with the US Fish and Wildlife Service, US Bureau of Reclamation, US Geological Survey, and State Health Department to develop data, generate data, and to develop the appropriate stream standards for specifically the Persigo Wash. A work plan has been submitted for review with the entities mentioned and is to be submitted to the Water Quality Control Commission on November 12, 2002, and implemented in 2003. The City is also negotiating with the State on the discharge permit that expired in 1999, and has taken the State three years to get a draft permit to the City, in terms of what the discharge regulations should be for the limits at the Persigo Plant. The City is working to ensure that the discharge permit dovetails with the Temporary Modification.

BRIEFING ON CLIFTON SANITATION DISTRICTS #1 AND #2.

Presenter: Greg Trainor, Utilities Manager

Greg Trainor related that Clifton Sanitation Districts #1 and 2, which serve customers within the County in the 32 Road corridor and the Clifton area, discharge into the Colorado River. The discharge that goes into the river comes from lagoons and the State of Colorado is looking at implementing an ammonia standard on the Clifton Sanitation Districts. The Clifton Districts are looking at a number of alternatives, the two biggest ones are either constructing a treatment plant to eliminate the lagoon systems or hooking up to the Persigo system. Hooking to the Persigo system would require construction of interceptors and major infrastructure, and possible annexation.

Janet Terry related in the past there have been annexation battles and would like to emphasize the importance of the political issues related to what would be required with the Persigo Agreement and the annexation is the biggest and most important issue. She did not feel that the City staff should do any more than answer questions and give only the cost information that the Clifton Sanitation Districts need to make their decisions. Several other Council members concurred with that. Staff was requested to keep the Council apprised of all discussions being held.

BACKBONE SYSTEM CAPITAL IMPROVEMENTS WITHIN THE SPECIAL SANITATION DISTRICTS; VOLUME-BASED BILLING FOR SANITATION DISTRICT DISCHARGES TO PERSIGO SYSTEM

Presenters: Mark Relph, Public Works Director;
and Larry Beckner, Beckner, Achziger, McInnis, Raam,
& Shaver, LLC, representing Central Grand Valley and
Orchard Mesa Sanitation Districts

Larry Beckner related that in October of 2001, a number of issues were raised by the Central Grand Valley Sanitation District and the Orchard Mesa Sanitation District concerning how the "backbone system" is defined and the extent of potential backbone system improvements within these districts. These issues came to light when the City requested to use funds from the Persigo system to address the stormwater infiltration problems. The Districts related that they had been paying into the joint fund for twenty years and the City would not let them use the funds to solve their infiltration problems. At this time the City was also requesting an increase to the Plant Investment Fee from \$750 to \$2,250 and that was being passed on to the Districts as each customer taps onto the system. The Districts, after a joint meeting, agreed to support the use of the backbone funds for the City storm sewer project if they would be able apply for those joint funds.

Staff related that there had been discussions of amending the contracts with the special sanitation districts to allow for volume-based billing. The current method is a flat rate method of billing based on the number of EQU's. There is a number of technical and contractual issues affecting such a change. Establishment of the volume-based

system, either through metering of flows and billing on that basis, or determining a seasonal EQU equivalency for increased infiltration into the sewer system and billing on that basis, would directly relate the cost of treating demand on the capital improvements built to serve that demand.

Larry Beckner related that Districts agreed to the City using the joint funds to cut down the City infiltration and the City is not recommending but at least suggesting that an option would be to charge the Districts more money as they are putting infiltration into the plant but they are not getting any funds out of the joint fund to help the Districts infiltration. Larry related that he would like to get all the issues resolved. He further related that the discussions regarding the budgets and funding have never progressed and the Districts will not have any input on the issues or utilize the funds until 2006. He suggested that a possible solution to the matter might be to appoint Mark Relph as the point of contact person and would like to be given a deadline of three months to get back to the joint body.

Commissioner Baughman related that the Special Districts have been paying into the backbone system and that was one of the agreements that was reached by this body when the decision was made that joint funds were to be used to take care of the stormwater infiltration in the City and that the Special Districts would have some ability to access those funds. Commissioner Genova concurred. Larry Beckner related that the districts have spent in excess of \$2.6 million on their infiltration problems in the past six years. Reford Theobald related that the City wanted to be fair about how the system was administered, the City and County are co-owners of the plant but the Special Districts are customers of the plant and do not have the same equity in the plant, but they are also citizens, and they are also government and the City wants to try to work with them. Commissioner Genova related that she felt it was better to work with the Districts as a whole rather than to say that they were the customer and we are the boss, all are citizens and it is our plant and we all need to work together to make it work efficiently and cost effectively.

Robert Jasper related that the Clifton system is being run very well and efficiently and County does not want to take over a bankrupt system or have it dissolve, and felt that the Joint body needed to work with the Special Districts. He also related that Pete Baier should be included in the discussions between Mark Relph and Larry Beckner.

BIOSOLIDS DISCUSSION BETWEEN THE CITY AND MESA COUNTY.

Presenter: Pete Baier, Mesa County Public Works Director

The Landfill is now having to monitor for methane gas. The biosolids are a contributor to that gas. In the past the Landfill has been able to dispose of the biosolids relatively inexpensively, they also are a great source for the composting, but only a certain amount can be utilized in that operation. The biosolids may have to have more of the liquids extracted before they are taken to the Landfill to reduce the formation of the

methane. Pete requested that both staffs work with each other on the matter and report back to the Joint Body in six months.

INTEREST RATE CHARGES FOR SEPTIC SYSTEM LID'S.

Presenter: Robert Jasper, Mesa County Administrator

Water Pollution Control Bonds from the Colorado Water and Power Development Authority were issued to accelerate the number of Septic System Elimination projects being constructed. The current interest rate being charged sewer improvement districts is 8%, staffs were recommending a 6% as the interest rates are low at the present time. A policy decision would have to be made to amend the rate for only those improvement districts being funded with Water and Power Authority bonds.

GREASE TREATMENT AND SEPTAGE RECEIVING FACILITY AT PERSIGO.

Presenter: Greg Trainor, City Utilities Manager

The Persigo Wastewater Treatment Plant is nearing capacity on its ability to accept grease and septage. At the present time the facility is requiring the septic and greaser haulers make appointments at the treatment plant so that there is no more than 2,000 gallons per day received. Greg Trainor related that for the past year they have been looking at alternatives for treating grease and septic waste at the treatment plant or at a private facility. He related that there has been interest expressed by private individuals to handle these items. There is a private facility that can handle the grease and septic waste, it is near the Delta County line and the cost is quite a bit higher than the cost of disposal at Persigo. Many sewer facilities do not allow septic or grease loads into their plants.

The Board and the Council discussed the costs of government verses private, whether the plant should build more handling capacity or if they should privatize the matter. It was questioned how would this effect the restaurant owners. Staff was advised to meet with the users and report back to the Joint body.

ADMINISTRATIVE OVERHEAD CALCULATION.

Presenters: Kelly Arnold, Grand Junction City Manager; and Robert Jasper, Mesa County Administrator

It was reported that currently the Enterprise Funds are charged a 5% fee for overhead costs. The County felt that the federal program OMB (Office Management and Budget) Circular should be used. In this program the rate is based on a formula and gives a rational basis for the overhead fee.

OTHER BUSINESS.

Chairman Hall requested that the City write a letter to Larry McCown, Co-Chairman Northwest Colorado Oil and Gas Forum, thanking him as he was very instrumental in obtaining the increased Severance Tax Payment regarding employees that reside in the area that work in the oil and gas industry. The City of Grand Junction received an additional \$426,000 and Mesa County received \$167,000.

STATUS OF THE DROUGHT AND WHAT THE FUTURE MAY BRING.

Chairman Hall gave a report on the Colorado River District and how they regulated the water resources during the summer. She also discussed the ballot question regarding the .25 mill levy and how it was to be used on additional storage and purchase of water from federal projects.

Greg Trainor reported that the City of Grand Junction, Ute Water, and Clifton municipal water supplies were in very good shape. The snow pack would be monitored over the winter and different levels of drought response were being discussed. The City of Grand Junction was very fortunate to have senior water rights.

The City Council members and the Board of County Commissioners set 6:00 p.m., Thursday, November 14, 2002, as the next meeting to discuss the matters that were tabled.

ADJOURNMENT

There being no further business to come before the Board of County Commissioners and the Grand Junction City Council, Chairman Hall and Mayor Cindy Enos-Martinez adjourned the meeting at 9:45 p.m.

Monika Todd,
Mesa County Clerk and Recorder

(Verbatim files of the Proceedings of October 14, 2002,
are on file in the Mesa County Clerk's Office.)

**Attachment 2
Sewer Variance Procedure**

CITY OF GRAND JUNCTION

CITY COUNCIL AGENDA						
Subject	Sewer Variance Procedure					
Meeting Date	Joint Persigo meeting; April 25, 2003					
Date Prepared	April 17, 2003				File #	
Author	Greg Trainor			Utility Manager		
Presenter Name	Mark Relph			Public Works Director		
Report results back to Council		No	X	Yes	When	Depending upon action taken
Citizen Presentation		Yes	X	No	Name	
	Workshop	X	Formal Agenda		Consent	Individual Consideration

Summary:

Revision of "Sewer Variance Policy" allowing for the redevelopment of residential lots within the 201 Sewer Service boundary before sewer service is available.

Action Requested/Recommendation:

Confirming the direction provided at the October 14, 2002, Joint Persigo Meeting, by adding the words "residential or," to Section 4. System Expansion; (b) (2) b, Types of Expansion in Developed Areas. **See Exhibit #1.**

Adding the above-referenced addition to the Wastewater Regulations allows for residential property, within the 201 Sewer Service boundary, to be subdivided within in-fill areas where sewer is not presently available nearby but would be available in the future.

As the "Manager" of the Persigo System, the City would make a determination if the construction of sewer is impracticable at the moment, allowing for a septic system to be constructed, assuming that it met Mesa County Health Department standards for the construction of ISDS systems. Under the "model" adopted last fall, the property owner would deliver an executed power of attorney for the formation of a future sewer improvement district. Also, the owner would pay that amount of money which the manager calculates to be the proportionate share of sewer line construction costs when an improvement district is formed.

Background Information:

Please refer to the minutes of the October 14, 2002 Joint Persigo meeting for additional detail on the previous discussion.

The granting of a variance from the requirement to connect to sewer, under conditions, is consistent with the provisions of the City of Grand Junction Zoning and Development Code. However, it appears that the availability of a variance procedure as described in the Sewer regulations is not consistent with either the Municipal Code or the Persigo Agreement. Given that the Sewer regulations have not been updated since first written, this is not surprising. If the City Council and the Board of County Commissioners desire to retain the flexibility of allowing a variance, because of special conditions, it is recommended that one of the following occur:

1. That any request for a variance come before the City Council and Board of County Commissioners, either separately or combined. If it is a combined meeting, then it could be at the annual Persigo Meeting, or;
2. The City's Sewer Regulations be modified to allow exceptions under certain conditions for certain types of residential development. If this alternative is selected, only the City's process would consider such requests. This is the alternative that is recommended for confirmation and approval.

If either variance alternative is deemed appropriate, staff would recommend that the "special conditions" be well defined. Specifically:

- That variance review criteria be established, and;
- That both the Municipal Code and the Persigo Agreement be amended to allow for the granting of variances should the Council and the Board agree to such a procedure.
- Staff submit those proposed changes back to the appropriate Policy Maker(s) for formal consideration and adoption.

These points reflect a preference toward the intent of the Persigo Agreement that all new development be sewerered and that exceptions only be granted under very specific and limiting factors.

file:

Persigomtgn_4-25VarianceProcedure

Exhibit #1

Wastewater Regulations

Sec. 4

Rule 4.6. The manager, at present, chooses the method of sewer reimbursement agreement to provide a mechanism to allow a developer to recoup some of the costs described above. A copy of a standard form sewer reimbursement agreement is attached as appendix X [which is on file in the city clerk's office]. The manager may negotiate different terms as circumstances may require.

The term of such agreements shall not exceed ten years. The rate at which interest shall accrue on the developer's costs of extension shall be established by the manager based on then current conditions.

(2) *Developed areas.*

Policy. Some areas have already developed as individual lots and uses without sewer service. Circumstances where sewer needs to be provided to such lots and uses include:

- a. A residential unit served by an ISDS (septic system) which fails and the unit is within 400 feet of a sewer, or
- b. An existing nonresidential use the owner of which wishes to expand or redevelop the property.

Providing sewer service to such areas means that the property owners must pay the costs of sewer extensions and service facilities. The manager finds that the system should not pay for such costs, except as provided for herein. The costs of retrofitting an area for sewer service is typically much higher than if done at the time of development and many times means that the costs attributable to each lot, especially residential lots or parcels, is high. The manager finds that some form of financing may be required, under certain circumstances, to promote the public health by providing sewer service in some areas of the 201 service area.

- c. An improvement district is a useful financing tool which allows for payments over time of the costs of retrofitting an area. The manager endorses and approves the use of improvement district(s).

Typically, an improvement district is used when a neighborhood or other identifiable area needs sewer service and the owners in the area can garner sufficient owner consent to form a district. For areas within the city limits, the city improvement district process is available. For areas not wholly within the city limits, other improvement districts, requiring the oversight and consent of the county commissioners, may be available.

Sec. 4

d. In an area where insufficient owners consent to form a district, other mechanisms are needed to allow the continuing use of a property which does not have sewer service available, but for which sewer service is required. Such a situation may arise in an area generally served by ISDS where one septic system fails or does not meet current standards.

Rule 4.7. In the case of 2a. and 2b., if a developer/property owner demonstrates to the satisfaction of the manager that the following two conditions exist: (1) the construction of a sewer line is impracticable and (2) adequate disposal and treatment facilities exist, or that a failed ISDS can be repaired; the manager may authorize, at or prior to review of development plans or septic system approval, that the approval or permit be issued based on the following conditions which shall be specifically agreed upon by the developer pursuant to a written agreement:

- (a) The developer/property owner shall deliver an executed power of attorney for formation of a future sewer improvement district; and
- (b) The developer/property owner shall pay that amount of money which the manager calculates to be the proportionate share of the sewer line construction costs, as defined by the manager, attributable to the development or property, plus an administrative charge of six percent of the principal amount of such proportionate share (the "payment"); and
- (c) The manager may authorize the payment, described in rule 4.7(b), above, over a term of years, not to exceed ten, upon the execution and delivery by the developer of a promissory note and mortgage or deed of trust sufficient, in the judgment of the manager, to reasonably ensure that the payment will be timely made; and
- (d) Interest shall accrue on the payment at a rate established by the city council, by resolution, or in the absence of such a resolution, at a rate which is equal to the rate of return on city investments obtained by the finance director of the city on the city's long-term investments; and
- (e) The obligation to pay the payment, in addition to the mortgage or deed of trust, shall constitute a lien upon the property and shall be equivalent to the lien provided for in the City Code establishing a water lien, presently sec. 38-104. All remedies available pursuant to such sec. 38-104 shall equally apply to the lien described and created herein; and

- (f) In the event that an improvement district is formed and some or all of the payment has been paid, the assessment which would otherwise be payable shall be reduced by the amount of principal of the construction cost which has been paid; and
- (g) The developer shall dedicate, at no cost to the city, such right-of-way or easements as the manager shall deem necessary to construct, operate, and maintain the system, in accordance with city specifications and standards. In the event that insufficient information is available to determine the legal description of the required rights-of-way or easements at the time of approval or permit issuance, the developer shall promise and covenant to make such a conveyance or grant at such time in the future as the manager shall require.

If adequate disposal and treatment facilities do not exist or a failed ISDS can not be repaired so that such a system can adequately service a property during an interim period before sewer lines are constructed, the property shall be abandoned or vacated until adequate treatment or disposal is available. Adequate disposal may include regular and periodic pumping and disposal of accumulated waste at the Plant.

(c) Sewer trunk line extensions in developed or developing areas.

In some circumstances, the extension of a trunk sewer or interceptor to serve one or more sub-basins is in the public interest. Resolution 47-93, as amended from time to time, establishes the applicable policy and requirements for sewer trunk line extensions.

In the past, certain developments outside the city were approved which were not connected to the system; in some of such cases, "dry lines" were constructed with the expectation that such "dry lines" would be later connected to the system when a trunk or other line was built. However, no provision was made for payment by the developer or the lot owner of the costs of extension of such trunk and the costs of interconnection. The manager finds that such approvals are not in the public interest.

Rule 4.8.

No development within a basin or sub-basin in the 201 service area for which inadequate or no lines exist, as determined by the manager, shall be permitted to proceed to final plat or other final approval, whichever is earlier, until the developer thereof has paid to the manager, for retention by it within an appropriate fund, the trunk line fee established pursuant to city Resolution 47-93. Nothing contained herein shall limit the obligation of the developer to pay

Attachment 3
Files Request
April 24, 2003

Joint Persigo meeting

Requested 201 Sewer System Area boundary changes

Doyle and Sandra Files

On September 9, 2002 Doyle and Sandra Files made a request to the City to de-annex their property. See the attached letter.

This property was part of the Ridges Annexation and, thus, is inside of the City limits. However, the Files property, south of Monument Road, is outside of the 201 Sewer Service Area boundary. This is 39.5 acres of their 40 acres. One-half acre is north of Monument Road and inside of the 201 Sewer Service Area boundary.

The request needs to be examined in two parts:

1. Will the property be sewered in the future? A City Council/Board of County Commissioner decision.
2. If yes, then the property remains within the City limits and the 201 Boundary is moved south to include the entire parcel. If no, then the 201 Boundary remains as it is and the Files property is either de-annexed or remains within the City for future development control. A future City Council decision.

Part 1.

There is no sewer service along Monument Road. The closest sewer down gradient is at the intersection of Monument Road and South Redlands Road, 10,000 feet away. The closest sewer up-gradient is at Rim Rock Court, 10,000 feet away. Many private parcels south of Monument Road are on septic systems (Redstone Estates, and smaller parcels). Topography of the Files property and of parcels to the west would allow for development immediately adjacent to Monument Road to connect to sewer. However, the limited development densities (Rural 5-35), limited development sites due to topography, and distances to existing sewer (10,000 feet to the East and 10,000 feet to the West, respectively) makes construction of sewer in this area unlikely.

There is no water service available to this parcel.

Part 2.

For the reasons outlined in Part 1, above, the staff recommendation is to keep the 201 boundary as it is presently constituted and not require the Files property to be sewered. This is consistent with the future land use designation of "Rural" (5-35 acres per unit). The small portion of the Files property north of Monument Road and within the 201 boundary would have to receive a waiver from City Council for the construction of a septic system if it was ever developed. There is a proposal from Doyle Files to transfer this half-acre parcel to the City in exchange for an access easement across City property to the east.

Finally, the decision would be to de-annex or not, depending upon the degree of development control the City wishes to exert over this property. This decision would be made by the City Council at a future date.

September 9, 2002

Cindy Enos-Martinez, Mayor
City of Grand Junction
250 N. 5th St.
Grand Junction, CO 81501

Mayor Enos-Martinez,

Subject: Request for disconnect (deannex) of property from the City of Grand Junction

We are requesting that the property known as parcel number 2945-291-00-066 (vacant land), located on Monument Road be disconnected (deannexed) from the city of Grand Junction. We are asking for this so boundary lines can be changed between this parcel and two adjacent family owned parcels to the west which are in the county. The two family owned parcels are poor building sites as they currently exist. The larger 8 acre parcel is mostly "No Thoroughfare Canyon" drainage and the smaller 2 acre parcel is located right next to Dave Cooper's "barn" on Monument Road which blocks all views. We understand that all parcels involved in the boundary line adjustment must be either in the city or the county. After reviewing the situation, we believe it is better to have all parcels in the county since we can split the 40 acre parcel by an administrative review process and end up with 2 building sites rather than 1.

This parcel, which is part of Ridges Metropolitan District 2, is located south of Monument Road and is bounded by BLM (Tabeguache trail) on the east and south, Ridges open space on the north, and county property (our two family owned lots) on the west. The parcel was brought into the city when the Ridges was annexed. It was excess property in the original Ridges development that was never plotted for a sub-division and according to our information, Ridges considered it to be undevelopable. The terrain is very hilly and the drainage of "No Thoroughfare Canyon" runs through it. There are no utilities (except telephone) available along this portion of Monument Road. The closest water is from Mariposa Road, ¼ mile from the eastern property line, and the closest electricity is from Dave Cooper's property, approximately 1/8 mile from the western property line. The property is outside the 201 Sewer district boundary and there are no current plans for the city to run a sewer line along this portion of Monument Road. It should be noted that the property was located within the city limits when the Persigo agreement was enacted and was specifically excluded from the agreement. The terrain and poor utility availability makes it impractical to try and develop this property to comply with city's residential lot size guidelines of 2 acres or less (for urban density). The property does fit the long range city/county Master Plan of 5 acre minimum lot size and should be moved into the county so it would then be consistent with the rest of the nearby property located on the south side of Monument Road.

There do not appear to be any advantages to leaving the 40 acres in the city and then annexing the 2 county parcels into the city to do the property line adjustments. The disadvantages include the following:

- Moving the 2 county parcels into the city will be difficult. These parcels are located outside the 201 Sewer district boundary and cannot be moved into the city until the 10 year moratorium is concluded (in 2008) per the Persigo agreement without the consent of the Board of County Commissioners.
- Because of its exclusion from the 201 Sewer district boundary, there are no provisions or plans for sewer hookup for any of this property along Monument road so a septic will have to be used. Variances must be obtained for all building sites for septic systems.
- The high cost of bringing Ute water to the property means that a well will probably be used as the water supply. A variance must be obtained for all building sites for wells.
- The current long range development plan for this area calls for 5 acre minimum lot sizes. These building sites do not meet the city's lot size guidelines of less than 2 acres per residence (for urban density) and it would be impractical to develop this property to the higher density due to its varied terrain.

There do not appear to be any disadvantages to moving the 40 acres from the city to the county to do the property line adjustments. The advantages include the following:

- The parcel can be moved from the city to the county (deannexed) simply by a vote of the City Council.
- Because of its exclusion from the 201 Sewer district boundary, there are no provisions or plans for sewer hookup for any of this property along Monument road so a septic system will have to be used. Septic systems are routinely used in the county and no variances are required.
- The high cost of bringing Ute water to the property means that a well will probably be used as the water supply. Wells are routinely used in the county and no variances are required.
- The 40 acre parcel can be split into two 20 acre parcels through an administrative review process if the property is in the county. This provides an additional building site.
- The current long range development plan for this area calls for 5 acre minimum lot sizes which is consistent with county requirements rather than city requirements.
- This property is the only property located on the south side of Monument Road and west of the Tabeguache trail that is part of the city. All of the other land is either located in the county or is BLM land. Moving the property into the county would make it consistent with the rest of the property in the area.

Thank you in advance for pursuing our request to disconnect (deannex) the property from the City of Grand Junction. Please contact us if you need additional information or if we can be of further assistance.

Respectfully,

Doyle Files *Sandra Files*

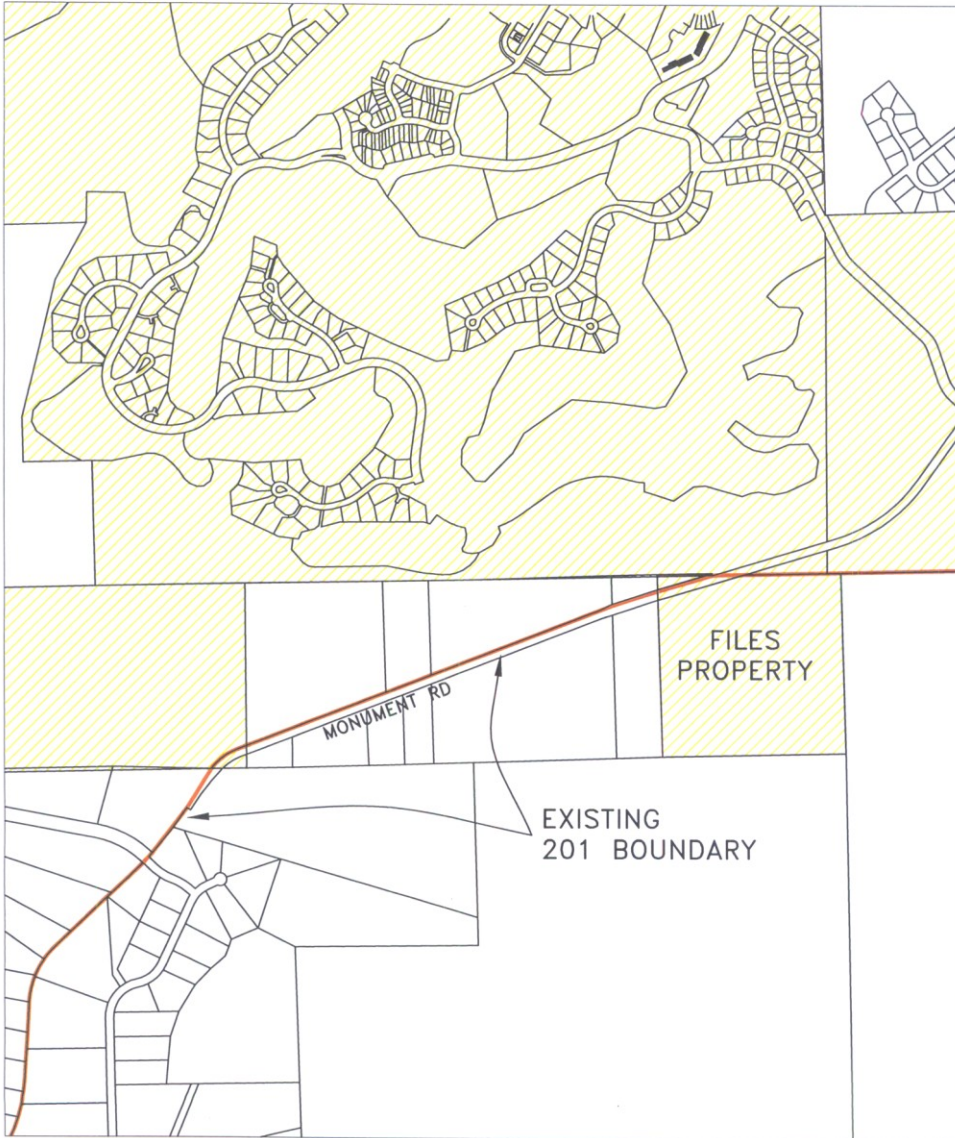
Doyle Files
Sandra Files
150 S. Hwy 160 Ste. C-8 PMB420
Pahrump, NV 89048

858-945-3965

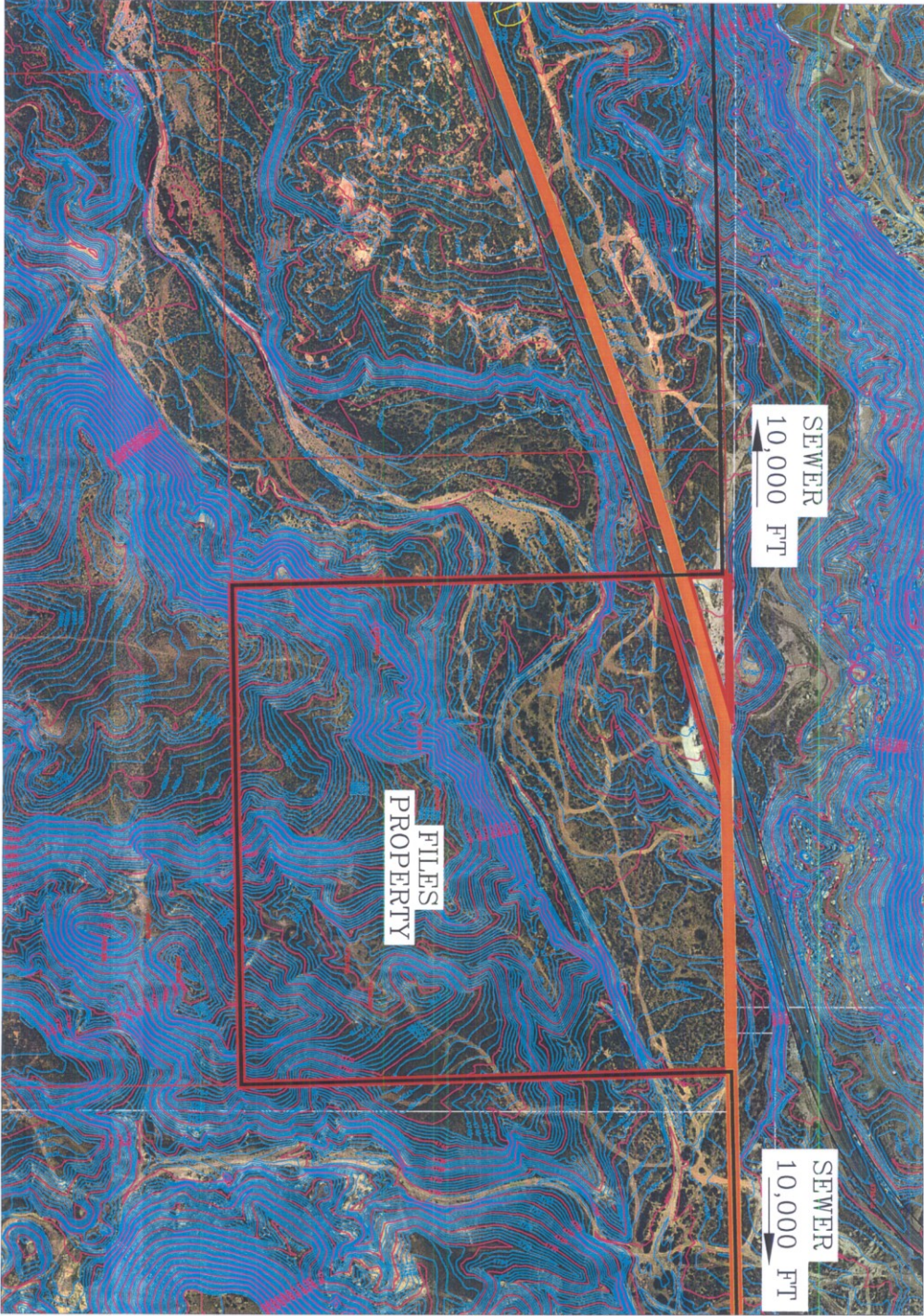
CC:

Jim Baughman
Kathryn Hall
Doralyn Genova
Katherine Portner ✓
Linda Dannenberger

VICINITY MAP OF THE FILES PROPERTY



4/18/03



- 201 BOUNDARY
- CITY LIMITS
- PARCEL LINE



- 201 BOUNDARY
- CITY LIMITS
- PARCEL LINE



- 201 BOUNDARY
- CITY LIMITS
- PARCEL LINE

Attachment 4 Project Updates

a. Biosolids

April 25, 2003

Joint Persigo Meeting

Disposal of Biosolids: Status

City and County staff met on Thursday, April 17 and reviewed the following options and progress.

Background:

Long recognized in the industry as a beneficial byproduct of the wastewater treatment process, biosolids have been examined for use in soil amendments by either drying the biosolids or combining them with other green waste materials in a composted soil amendment material.

The City of Grand Junction currently landfills “sludge” (biosolids) from the Persigo Wastewater Treatment Plant, under a State Permit, at the Mesa County landfill. This material is commingled with other garbage and trash. Mesa County would like to find other disposal methods for the sludge and remove it from the main landfill within two years.

In recent years, Mesa County has experimented with the biosolids in its green waste compost material. Although an excellent inclusion in the compost, Orchard Mesa residents objected to Mesa County because of some odor “arising” from the co-mingled compost. Mesa County stopped this practice last year.

There are currently four options for disposal of the biosolids:

1. Continue the current practice of co-mingling with regular trash in the landfill, which meets all State permit requirements.
2. “Pre-dry” the biosolids at the Persigo Wastewater Treatment Plant then use the biosolids in the County’s compost program.
3. Privatize biosolids disposal and composting.
4. Examine new ways of integrating biosolids into the County’s compost operating.

Option 1 does not meet Mesa County’s objective of removing biosolids from the waste stream within two years.

Option 2 carries a cost of \$400,000 in capital costs at Persigo and does not eliminate the issue of odor or of operating costs. This would essentially duplicate the County’s current composting operation at the landfill.

Option 3, although turning over biosolids to a private third party, duplicates the County’s current composting operation at the landfill.

Option 4 (recommended approach) would be an effort to re-examine state-of-the-art methods of aerating compost materials to remove or reduce odor. These technical efforts would be accompanied by the creation of a community-based steering group of Orchard Mesa property owners, green waste/compost advocates, retired wastewater experts from the community, and

city and county staffs. The first duty of the steering group would be to take several days and travel to the Denver and Salt Lake areas, see what other communities are doing with not only their green waste but also their biosolids, and discuss what might work in Mesa County.

The Persigo Wastewater Enterprise Fund would bear the expense of this technical research effort, consulting expertise that might be necessary, and any capital costs to set up and establish pilot plots at the landfill.

Memorandum

Date: April 15, 2003

To: Mark Relph, Public Works and Utilities Director
Greg Trainor, Utility Manager
Mike Robertson, Wastewater Superintendent

From: Trent Prall, Utility Engineer
Jay Vancil, Wastewater Treatment Plant Operator IV

Project: Persigo WWTP Biosolids Program
Subject: 2003 Update of 1999 Feasibility

Executive Summary

As of April 2003, Mesa County is again expressing interest in not having Persigo WWTP sludge buried at the landfill. Mesa County believes that the sludge is a large contributor to the methane gas that the landfill produces as decomposition takes place.

In 1999, when Mesa County changed from a volume based billing system to a weight based system, the City completed a feasibility study on handling of the sludge at the WWTP. The proposal at the time was to air dry the sludge on an asphalt pad for 3 months. After testing confirmed that the air drying transformed the sludge into "Class A" biosolids, the end product could be used on lawns, parks, farms, etc around the Grand Valley. The study concluded that, because of the low rates still in place for the sludge from Persigo, implementation of an air drying beneficial reuse of the biosolids at that time may not be in the rate payers best interest financially until tipping fees increase.

In September 2000, Mesa County started the Mesa County Organic Materials Composting Facility at the landfill. Organic materials such as leaves, grass clippings, tree limbs, unpainted wood waste and food waste are composted using conventional windrows to produce various products. Anaerobically digested and dewatered biosolids from the Persigo WWTP were composted at the facility until odor complaints from neighboring residents forced operators to discontinue biosolids composting.

The attached analysis still shows that an air drying pad at Persigo is still financially impractical. Staff is opposed to investing almost \$400,000 in a pad and equipment at Persigo that still may be plagued with odor issues without additional investigation into other alternatives. Since the Mesa County composting facility is already in place, City staff is proposing that some investigation, i.e. pilot project, be undertaken to pursue working the biosolids into the compost processing with some odor mitigation techniques such as negative aerated windrows with a biofilter. Sear Brown, a consulting engineering firm with vast nation wide experience in this type of work, has offered to help provide technical assistance for \$7,000.

General Background

Currently biosolids are dewatered to approximately 20 percent solids by WWTP belt presses, dropped into one of two dump trucks, and hauled to the County landfill. The City paid approximately \$62,323 in 2002 to dispose of the 1780 dry tons of sludge, equating to approximately \$7.00 per wet ton.

In 1999, the County originally proposed to raise the landfill fee schedule to \$18.00 per ton, hence necessitating the study into alternatives. During the study, however, the revised rates for Persigo's sludge equated to \$7.00 per wet ton or roughly a 10% increase over then current rates.

The following were other problems or issues associated with the current biosolids handling and disposal system.

1. No beneficial use of a potentially valuable resource.
2. Potential contamination issues at county-owned landfill, which might be attributed to the City.
3. Potential PRP designation as a result of other hazardous materials deposited in the landfill.
4. Regulatory trend in Colorado not to allow sludge in landfills, however this is most prevalent on the eastern slope.
5. Current Colorado Solid Waste Act allows for local regulation under County-issued CD. County has authority to determine whether biosolids disposal is allowable. In the future it may mean construction of lined cells to allow County landfill to meet leachate requirements. This would likely result in an increase in tipping fees paid by the City.

Air drying of stabilized, dewatered biosolids for additional stabilization and volume reduction is a process that is gaining popularity in regions with semi-arid climates. Air drying can be used to meet the Class A Pathogen Reduction Requirements along with the Vector Attraction Reduction Requirements.

The City of Grand Junction is considering implementing air drying to further stabilize their biosolids prior to public distribution. City staff looked at two methods of air drying; the USEPA Region VIII "Two Summer Method" and the rapid drying method. The methods differ in the manner in which Class A Pathogen reduction is met. USEPA Region VIII recognizes the Two Summer Method as a Process too Further Reduce Pathogens (PFRP) Equivalent. If the rapid drying technique is used the City will be required to follow Class A Pathogen Reduction Alternative 4. The alternative requires testing for viable Helminth Ova along with enteric viruses.

Two Summer Method. Utilizing the "Two Summer Method" biosolids must be stored over two summers (a minimum of 15 months). Biosolids generally are piled into windrows at least 3.5 feet, but are not more than 6.0 feet in height. There are varying temperature requirements that also must be met and are outlined in more detail in the Sear-Brown Biosolids Air Drying Alternatives report compiled for the City of Grand Junction in the spring of 1998. The main disadvantage of this alternative is the pad size required. The overall air drying area, depending on whether a windrow or extended pile configuration is utilized, would cover require 5 and 10 acres of paved surface in order to provide capacity for the anticipated sludge generation for 2008.

Rapid Drying Method. In addition to the Two Summer Method, a number of facilities are investigating a rapid air drying method. The rapid drying method consists of applying stabilized dewatered biosolids cake to an uncovered asphalt pad in a single two to three inch thick lift. The cake is allowed to dry over a 10 to 14 day period and is periodically turned using a mechanical auger. After drying, the material is stockpiled prior to use. Again the Sear-Brown report outlines the more technical requirements of this alternative. The report recommended an overall air drying area required to meet 2008 demands would cover about 3.6 acres (330 x 480 feet).

Analysis

The analysis evaluated three alternatives including, do nothing, air drying / landfill, air drying / beneficial reuse. Due to high costs of the "Two Summer Method" described above, all references to air drying are assumed to refer to the Rapid Drying Method.

All alternatives were evaluated over the next 10 years and a present value calculated and compared. The present value assumed a 10 year cycle, 6% interest, annual inflation rate for production of sludge of 2%, annual inflation rate for landfill fees of 2%.

The analysis also evaluated upfront capital expenditures, maintenance of the infrastructure, labor manhours, diesel consumption, and testing requirements.

1. Do Nothing.

The do nothing alternative, if selected, would continue to have sludge dewatered to 20% and then hauled to landfill.

2. Air drying / Landfill

This alternative air dried the sludge thus reducing the volume and the weight thus reducing the number of trips to the landfill.

Construction of the pad and equipment acquisition would require approximately \$340,000 in 2003 and approximately \$45,000 in O&M costs annually.

The present value of this alternative versus the do nothing alternative would be a net loss of \$76,963. In order for the Air Dry / Landfill alternative to break even, the rate per wet ton would have to increase from the proposed 2002 rate of \$7.00/wet ton up to \$8.08 /wet ton (15% increase).

3. Air drying / Beneficial Reuse.

This alternative would air dry the sludge and produce a beneficial product which could be given away or sold.

Construction of the pad and equipment acquisition would require approximately \$340,000 in 2002 and approximately \$42,000 in O&M costs annually.

In order for the Air Dry / Beneficial Reuse program to break even assuming a landfill rate of \$7.00/wet ton increasing at 2% per year, we would have to charge \$14.80 per CY in order for the program to break even. If we were giving it away, the rate per wet ton would have to increase from \$7.00/wet ton to \$8.71 (24%) in

order for the program to break even. Giving the product away results in a present value loss of \$132,258 when compared to the do nothing alternative.

Marketing

Marketing has not been addressed in great detail, however the Parks Department has claimed that they would take everything the program would produce as the biosolids are a natural soil conditioner that increases available soil moisture and creates favorable conditions for plant root development. For an existing turf grass, approximately ¼ inch (3/4 cubic yard per 1000 square feet) should be broadcast in fall and early spring. The 1,900 dry tons (1425 CY) anticipated to be produced in the year 2005 would cover the fall and early broadcasts for approximately 22 acres.

If a price was applied to the end product, Parks support for the program may dwindle. If our break-even price of \$14.80/CY was charged, it would cost Parks almost \$21,090 per year based on the year 2005 anticipated production of biosolids.

The Louisville and Pinery operations on the eastern slope are able to sell their Class A biosolids for \$10.00 to \$15.00 per CY, however they are much smaller operations with less to product to sell. Both of the operations, only have effluent flows of 2.6 MGD and 0.5 MGD respectively. The City of Grand Junction would be the largest treatment plant in the state of Colorado drying biosolids to Class A.

The Mesa County Landfill composting facility is already increased public awareness about the importance of composting. However, this plan still proposes using the Parks Department as a proving ground and will increase public awareness through newspaper articles, the City's newsletter, and informational brochures that may be included with rate payer's bills or upon request. Many brochures have already been generated by the Water Environment Federation and therefore would minimize the amount of staff time needed to develop brochures.

Phasing

A phase-in or pilot approach was recommended in the 1997 Rick Giardina and Associates Rate Study as a method to not only mitigate short-term costs, but to more importantly, assess the overall feasibility of a beneficial use system. With the turning equipment requiring a substantial upfront investment (\$100,000 to \$200,000 depending on model), as well as the labor and equipment to still haul some of the sludge to the landfill, the pilot approach at Persigo is NOT recommended by staff.

The proposed work plan calls for the construction of pad area sufficient to handle the anticipated sludges production of the plant through the year 2012. In that year, construction of an additional surface area will be constructed to handle the production through the year 2025.

Past Research

In 1999, the Water Environment Research Foundation (WERF) sponsored a project in the Fort Collins area in which various rapid drying methods are being tried and tested. The tests looked at sampling techniques, turning frequency, and overall methodology to determine a “best practice” that could be adopted formally by USEPA Region VIII as a viable alternative to the Two Summer Method.

As of 2003, the EPA is not envisioning rewriting the 503 regulations where the two-summer method is specified to accommodate alternative methods that may be region specific. For now, they are proposing to just stay with the existing 503 regulations which includes the “generic” two-summer method which is for all climatic conditions in all of the United States. They are however, allowing local governments to try other methods as long as extra testing is completed to “prove” that the biosolids are Class A.

Ft. Collins is flash drying and surface applying class B on their own range land. Most likely they are getting class A, but they do not want to, nor do they have to, test the biosolids.

Other Alternatives / Aeration Pilot Testing at Mesa County Landfill.

On March 28, 2003, City staff attended the Mesa County Organic Materials Composting Facility during an open house. A consultant from Sear-Brown was also able to attend. The consultant has offered for \$7,000 to help the City/County investigate to identify process or system modifications that will minimize odors generated from composting biosolids generated by the Persigo WWTP.

In an April 3, 2003 proposal, the consultant recommended that pilot testing be completed looking into aerated windrow and aerated static pile. This is accomplished by placing the material to be composted over an air diffuser system connected to a blower. In the aerated static pile process, large extended piles are constructed that are not disturbed for the active composting period, which is typically 21 days. In the aerated windrow process, the pile temperature is controlled in between turnings by the aeration system. Because the piles are mixed, aerated windrow composting offers the additional advantage of breaking up pockets of poorly mixed material within the pile. This reduces odor generation and produces a more uniform higher quality product when compared with the aerated static pile process.

The advantages of aeration include improved temperature control, maintenance of aerobic conditions within the pile in between periods of agitation and the ability to collect process air and subject it to treatment. While it is difficult to quantify the impact of aeration on odor generation without pilot testing, it is generally recognized that maintenance of aerobic conditions and optimal temperatures within the composting mass result in lower odor emission rates. In addition, the piles may be aerated by drawing air down through the pile, referred to as negative aeration, with the blower discharge directed to an odor treatment system such as a biofilter.

Sear Brown has offered to provide services to 1.) identify capacity of pilot facility; 2.) define dimensions of windrow and required equipment clearance; 3.) develop mix ratio for amendment and dewatered biosolids; 4.) provide design sketches and material specifications for the aeration system; 5.) provide specifications for the blower; 6.)

provide sketches and specifications for the biofiltration system; and 7.) provide O&M advice for the aerated windrow and biofilter.

A biofilter consists of a media, such as lava rock, used in conjunction with a carbon and nitrogen source, and a bulking agent.

It is anticipated that the required facilities will be constructed using City and/or County staff. Site requirements will include electrical power for a 5 to 10 Hp blower and water at greater than 50 psig for the biofilter watering system. Optimally, the site used for the pilot facility would be expandable to allow future full-scale operation.

Conclusions

After evaluating the above items, City staff recommends hold off on any work at Persigo until a pilot study could be completed at the landfill would be in the rate payers best interest.

With the current fee schedule in place at the dump, development of the pad requires a fee of \$14.80 per cubic yard be charged in order to cover costs. As the tipping fees increase, the break-even points drop substantially.

The WERF research had hoped to find a rapid drying methodology that will be acceptable to USEPA Region VIII that would allow rapid drying projects to move forward without special permitting, monitoring and an "experimental" label. This is not envisioned in the near future (1-5 years) as a rewrite of the 503 regulations would be required.

Any rate increases from the dump usually take affect approximately 9 months after first notice. With the site already surveyed and pad sizing already determined, plans could be generated and the pad constructed within 4 months of approval by Council. Therefore to place the project on the back burner at this stage should still allow us the flexibility to get the program operating within a 6 month period, well ahead of the rate increase.

Staff's recommendation is to place a Persigo air drying project on hold until an aerated windrow pilot test confirms whether or not the Mesa County Compost Facility can process the biosolids without odor issues.

City of Grand Junction
 Dept of Public Works and Utilities
 Utilities Division

Subject: Biosolids Program Summary

Landfill Charges:* \$7.00 \$/Wet TN
 Landfill Inflation Rate: 2%
 Revenue per CY: \$0.00
 CY / Dry tons 0.75
 Interest Rate: 6%

Year	Avg Annual Daily Influent (MGD)	Dry tons	Operations Do Nothing Alternative	Air Dry / Sludge Reuse Program				Present Value of Savings	
				Operations	Capital Costs	Total Program Costs	Proposed Revenues Savings		
2003	8.102	1,819	\$ 79,094	\$ 105,000	\$ 235,000	\$ 340,000	\$ - \$ (340,000)	\$ (340,000.00)	
2004	8.319	1,859	\$ 82,087	\$ 40,784	\$ 500	\$ 41,284	\$ - \$ 37,810	\$ 35,669.52	
2005	8.542	1,899	\$ 85,227	\$ 41,080	\$ 520	\$ 41,600	\$ - \$ 43,628	\$ 38,827.41	
2006	8.771	1,941	\$ 88,522	\$ 41,400	\$ 541	\$ 41,941	\$ - \$ 46,581	\$ 39,110.29	
2007	9.007	1,983	\$ 91,982	\$ 41,746	\$ 562	\$ 42,309	\$ - \$ 49,673	\$ 39,345.90	
2008	9.248	2,027	\$ 95,619	\$ 42,123	\$ 585	\$ 42,708	\$ - \$ 52,911	\$ 39,538.02	
2009	9.496	2,071	\$ 99,444	\$ 42,534	\$ 608	\$ 43,143	\$ - \$ 56,301	\$ 39,690.30	
2010	9.751	2,116	\$ 103,471	\$ 42,985	\$ 633	\$ 43,617	\$ - \$ 59,854	\$ 39,806.30	
2011	10.013	2,162	\$ 107,716	\$ 43,480	\$ 136,544	\$ 180,025	\$ - \$ (72,309)	\$ (945,367.29)	
2012	10.281	2,210	\$ 112,195	\$ 44,027	\$ 100,063	\$ 144,091	\$ - \$ (31,896)	\$ (18,878.93)	
				10 year savings				\$ - \$ (97,447)	\$ (132,258.48)

*Current Landfill Charges: \$7.00/Wet TN Originally had proposed in 1999 Charges: \$7.40/Wet TN (initially proposed \$18.00/Wet Ton)

Year	Avg Annual Daily Influent (MGD)	Dry tons	Operations Do Nothing Alternative	Air Dry / Landfill				Present Value of Savings	
				Operations	Capital Costs	Total Program Costs	Proposed Revenues Savings		
2003	8.102	1,819	\$ 79,094	\$ 105,000	\$ 235,000	\$ 340,000	\$ - \$ (260,906)	\$ (260,906.39)	
2004	8.319	1,859	\$ 82,087	\$ 42,947	\$ 500	\$ 43,447	\$ - \$ 38,640	\$ 36,452.93	
2005	8.542	1,899	\$ 85,227	\$ 43,677	\$ 520	\$ 44,197	\$ - \$ 41,029	\$ 36,515.84	
2006	8.771	1,941	\$ 88,522	\$ 44,453	\$ 541	\$ 44,994	\$ - \$ 43,528	\$ 36,547.03	
2007	9.007	1,983	\$ 91,982	\$ 45,277	\$ 562	\$ 45,839	\$ - \$ 46,143	\$ 36,549.30	
2008	9.248	2,027	\$ 95,619	\$ 46,155	\$ 585	\$ 46,740	\$ - \$ 48,779	\$ 36,525.40	
2009	9.496	2,071	\$ 99,444	\$ 47,091	\$ 608	\$ 47,699	\$ - \$ 51,745	\$ 36,478.01	
2010	9.751	2,116	\$ 103,471	\$ 48,092	\$ 633	\$ 48,725	\$ - \$ 54,747	\$ 36,409.78	
2011	10.013	2,162	\$ 107,716	\$ 49,164	\$ 136,544	\$ 185,709	\$ - \$ (77,993)	\$ (48,933.47)	
2012	10.281	2,210	\$ 112,195	\$ 50,316	\$ 100,063	\$ 150,379	\$ - \$ (38,184)	\$ (22,601.02)	
				10 year savings				\$ (52,372)	\$ (76,962.59)

City of Grand Junction
 Dept of Public Works and Utilities
 Utilities Division

Project: Biosolids
Subject: Capital Costs

Pad Design

Detention Time	3 months		
Capacity	2200 dry tons / year	Good through 2012	
Percent Solids	20% Percent solids coming off of belt presses		
Biosolid Depth	6 inches		
Required Area (calculated)	84,615 sq ft		
Required Area (consultant)	87,617 sq ft		
Pad Length (ft)	600	Initial Construction \$/sq ft: \$2.50	4" HMA / 8" Base
Pad Width (calculated / ft)	146.03	Overlay \$/sq ft (2003 \$): \$1.02	2" HMA
Pad Width (constructed / ft)	150 ft		
Total Area to be constructed	90,000 sq ft		

Initial Costs		Expansion Pad		Capacity	3,000 dry tons/yr
Pad Costs	\$ 225,000.00	Pad Costs		Total Area	120,000 sq ft
Storm Drainage	\$ 10,000.00	Upgrade pump		Expansion Area	30,000 sq ft
Total Initial Cost	\$ 235,000.00	Total Cost (2003\$)	\$ 75,000.00		

Annual Inflation: 4%

Year	Sludge Production Dry tons (from Operations sheet)	Expenses	Maintenance Crack Sealing	Total Expenses	Comments
2003	1,819	\$ 235,000.00		\$235,000.00	Initial Costs
2004	1,859		\$500.00	\$500.00	
2005	1,899		\$520.00	\$520.00	
2006	1,941		\$540.80	\$540.80	
2007	1,983		\$562.43	\$562.43	
2008	2,027		\$584.93	\$584.93	
2009	2,071		\$608.33	\$608.33	
2010	2,116		\$632.66	\$632.66	
2011	2,162	\$135,886.43	\$657.97	\$136,544.39	Overlay old section
2012	2,210	\$98,694.88	\$1,368.57	\$100,063.45	30,000 sq ft expansion
		\$469,581.31	\$5,975.68	\$475,556.99	

Subject: Biosolids Production 1987-2002 Actual / 2003-2012 Estimated

Weight Reduction: 79%
 Volume Reduction: 97%
 Dry tone per load: 0

Year	Avg Annual Daily Inflow (MGD)	% Change Dry tone	Length (feet)	% Change	Landfill \$/CY CY	Landfill Changes	Landfill \$/CWT TN	2 trucks	1 truck/1000	Excess Slurry ton	Excess Water/Fee	Excess Difference	Scenario A: Dewatering Change to Landfill	Scenario B: All Dry When to Landfill	Scenario C: All Dry, still Ad Coating over no dewatering	Comment
1987	5,440	1513	405	0%	\$ 80,000	\$ 267,000.00	4,772	11,968	29,210	6,143	5,054	70,425	42,897	13,259	40,200	
1988	6,095	21%	1074	26%	\$ 80,000	\$ 30,940.00	4,772	14,078	29,410	6,688	5,054	88,227	42,897	13,259	38,536	
1989	6,411	2%	1218	13%	\$ 80,000	\$ 28,140.00	4,772	14,238	29,549	6,743	5,054	91,862	42,897	13,259	41,080	
1990	6,523	2%	1486	23%	\$ 73,800	\$ 40,198.00	5,811	14,428	29,649	6,822	5,054	96,610	42,897	13,259	41,600	
1991	7,019	15%	1580	6%	\$ 88,800	\$ 52,258.20	6,791	14,709	30,109	7,060	5,054	107,716	42,897	13,259	42,123	
1992	7,268	3%	1766	12%	\$ 85,800	\$ 52,428.00	6,791	15,031	30,736	7,185	5,054	105,671	42,897	13,259	42,584	
1993	7,443	2%	2170	23%	\$ 91,900	\$ 65,324.20	7,200	15,460	31,460	7,333	5,054	107,716	42,897	13,259	42,887	
1994	7,697	3%	1835	-13%	\$ 86,775	\$ 56,581.58	7,500	15,862	31,660	7,333	5,054	107,716	42,897	13,259	42,887	
1995	7,813	1%	1742	-5%	\$ 97,191	\$ 59,872.74	7,500	16,460	31,660	7,333	5,054	107,716	42,897	13,259	42,887	
1996	7,743	-1%	1819	4%	\$ 98,231	\$ 62,324.48	7,500	16,968	32,210	7,333	5,054	107,716	42,897	13,259	42,887	
1997	8,102	5%	1819	0%	\$ 100,500	\$ 69,008.78	7,238	17,078	32,410	7,333	5,054	107,716	42,897	13,259	42,887	
1998	8,319	3%	1859	2%	\$ 104,500	\$ 72,322.20	7,548	17,428	32,849	7,500	5,054	107,716	42,897	13,259	42,887	
1999	8,771	5%	1941	4%	\$ 108,600	\$ 77,554.47	7,778	17,828	33,349	7,643	5,054	107,716	42,897	13,259	42,887	
2000	9,027	3%	1983	2%	\$ 110,000	\$ 81,651.54	8,004	18,301	33,936	7,785	5,054	107,716	42,897	13,259	42,887	
2001	9,468	5%	2071	4%	\$ 113,100	\$ 86,440.03	8,250	18,862	34,600	7,933	5,054	107,716	42,897	13,259	42,887	
2011	10,023	6%	2116	2%	\$ 117,735	\$ 90,533.24	8,521	19,460	35,340	8,085	5,054	107,716	42,897	13,259	42,887	
2012	10,281	3%	2210	4%	\$ 121,000	\$ 95,000.00	8,800	20,100	36,100	8,233	5,054	107,716	42,897	13,259	42,887	
Actual Increase:		2.81%		1.93%												
Estimate Increase:		2.81%		1.93%												

City of Grand Junction
 Dept of Public Works and Utilities
 Utilities Division

Project: Biosolids
 Subject: Testing

Test	Existing Testing	New Testing	Total Testing 100 % reuse
Frequency / days 60.00			
METALS			
Arsenic	130.00	130.00	780.00
Cadmium	17.00	17.00	102.00
Chromium	17.00	17.00	102.00
Copper	17.00	17.00	102.00
Lead	17.00	17.00	102.00
Mercury	88.00	88.00	528.00
Molybdenum	17.00	17.00	102.00
Nickel	17.00	17.00	102.00
Selenium	130.00	130.00	780.00
Zinc	17.00	17.00	102.00
PATHOGEN CRITERIA			
Fecal Coliform	140.00	210.00	1260.00
Salmonella	0.00	65.00	390.00
Helminth Ova	0.00	55.00	330.00
Enteric Virus	0.00	385.00	2310.00
NUTRIENT/PHYSICAL CHARACTERISTICS			
pH	5.00	5.00	30.00
Total Solids	10.00	10.00	60.00
Volatile Solids	0.00	0.00	0.00
Organic Nitrogen	59.00	59.00	354.00
Total Ammonia	40.00	40.00	240.00
Nitrate	0.00	0.00	0.00
Total Phosphorus	30.00	30.00	180.00
Total Potassium	17.00	17.00	102.00
Total Iron	17.00	17.00	102.00
	17.00	17.00	102.00
Total \$ per occurrence	802.00	1377.00	8262.00
Tests per year:	4.00	2.00	
Total Testing Cost per year	3208.00	2754.00	8262.00

City of Grand Junction
 Dept of Public Works and Utilities
 Utilities Division

Project: Biosolids
 Subject: Equipment Rental

			Truck	
Used Brown Bear 300	\$	105,000.00		
New Cost / BB 300	\$	219,000.00	\$	70,000.00
Replacement Cost	\$	324,173.50	4% per year inflation	\$ 103,617.10
Salvage Value	\$	43,800.00	20%	\$ 14,000.00
Necessary Accruals	\$	280,373.50		\$ 89,617.10
Years		10		10
Interest		6%		6%

Year	Brown Bears Accruals	Maintenance 10%	Brown Bear Rental Rate	Truck Accruals	Maintenance 20%	Truck Rental Rate	Total Equip Rate
2004	\$21,271.36	\$1,000.00	\$22,271.36	\$6,799.07	\$200.00	\$6,999.07	\$29,270.43
2005	\$21,271.36	\$1,100.00	\$22,371.36	\$6,799.07	\$240.00	\$7,039.07	\$29,410.43
2006	\$21,271.36	\$1,210.00	\$22,481.36	\$6,799.07	\$288.00	\$7,087.07	\$29,568.43
2007	\$21,271.36	\$1,331.00	\$22,602.36	\$6,799.07	\$345.60	\$7,144.67	\$29,747.03
2008	\$21,271.36	\$1,464.10	\$22,735.46	\$6,799.07	\$414.72	\$7,213.79	\$29,949.25
2009	\$21,271.36	\$1,610.51	\$22,881.87	\$6,799.07	\$497.66	\$7,296.73	\$30,178.61
2010	\$21,271.36	\$1,771.56	\$23,042.93	\$6,799.07	\$597.20	\$7,396.26	\$30,439.19
2011	\$21,271.36	\$1,948.72	\$23,220.08	\$6,799.07	\$716.64	\$7,515.70	\$30,735.78
2012	\$21,271.36	\$2,143.59	\$23,414.95	\$6,799.07	\$859.96	\$7,659.03	\$31,073.98
2013	\$21,271.36	\$2,357.95	\$23,629.31	\$6,799.07	\$1,031.96	\$7,831.02	\$31,460.34
2014	\$21,271.36	\$2,593.74	\$23,865.11	\$6,799.07	\$1,238.35	\$8,037.41	\$31,902.52

City of Grand Junction
 Office of Public Works and Utilities
 Utilities Division

Subject: Operations Costs / Air Dry with 100% reuse

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total Cost Through 2008
% REUSE	0	0	0	0	0	0	100	100	100	100	100	100	100
Production / Dry tons	2,107	2,212	2,323	2,439	2,561	2,689	2,824	2,965	3,113	3,269	3,432	3,604	3,604
LABOR MANHOURS/YEAR													
Hauling	737	687	100	135	169	144	150	165	180	186	172	179	2,217
Refrigerator	133	132	132	132	132	132	132	132	132	132	132	132	1,320
Sludge processing	2090	2165	2242	2322	2405	2491	2580	2672	2768	2866	2969	3075	28,555
Turning	0	0	260	312	374	449	539	647	776	932	1118	1342	6,749
Loading	0	0	130	143	157	173	190	209	230	253	279	307	2,072
totals	4160	4185	4114	4264	4428	4610	4811	5035	5297	5569	5889	6263	54,447 hours
Manpower	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.7	2.8	3.0	50% increase
DIESEL CONSUMPTION GALLONS													
Hauling @ 5.44 gph	4009	3737	707	732	759	786	814	843	873	904	938	970	12,061
Turning @ 6.00 gph	0	0	1560	1872	2246	2696	3235	3882	4658	5590	6708	8049	40,496
Loading @ 2.00 gph	4009	3737	2527	2880	3320	3827	4429	5133	5922	7000	8201	9532	56,700
totals	8018	7474	4294	4884	5825	6948	8359	10058	12053	14494	17847	22451	110,257
Diesel cost / Gallon	0.82	0.84	0.86	0.88	0.91	0.93	0.95	0.97	0.99	1.01	1.03	1.05	\$54,966.43
0.021 gallon/mile/year	\$3,297.00	\$3,140.00	\$2,816.00	\$3,297.00	\$3,406.00	\$3,474.00	\$3,538.00	\$3,608.00	\$3,684.00	\$3,766.00	\$3,854.00	\$3,946.00	\$6,946.00
Savings	\$0	\$1,182	\$1,687	\$2,537	\$3,211	\$3,829	\$4,493	\$5,203	\$5,958	\$6,760	\$7,610	\$8,518	\$17,285
MILEAGE													
Hauling @ 28 miles per trip	20636	19236	3640	3770	3905	4044	4188	4338	4493	4653	4819	4991	42,841
Turning hours X 5 = miles	0	0	1300	1560	1872	2246	2696	3235	3882	4658	5590	6708	33,746
Loading hours X 5 = miles	0	0	650	715	787	865	952	1047	1152	1267	1393	1533	10,359
totals	20636	19236	4940	5330	5777	6290	6884	7497	8207	9078	10009	11651	86,946 miles
Savings	0	15,024	10,518	11,415	11,770	11,614	11,375	11,046	10,636	10,156	9,629	9,081	107,416
ADDITIONAL EXPENSES													
Marketing	\$0	\$0	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000
totals	\$0	\$0	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000
BASED ON DO NOTHING													
Manpower increase			11%										
Marketing expenses			\$2,000.00										
Fuel savings			#####										
mileage savings			107,416										

Subject: Operations Costs / Do nothing

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total Cost
Production / Dry tons	0	0	0	0	0	0	0	0	0	0	0	0	0
% REUSE	2.107	2.212	2.323	2.439	2.561	2.688	2.824	2.965	3.113	3.269	3.432	3.604	0 Through 2008
LABOR MANHOURS/YEAR													
Hauling	737	687	713	566	614	645	661	677	566	693	710	727	7,256 hours
Aerobic dig.	1333	1333	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	14,466 hours
Sludge processing	2090	2165	2242	2322	2405	2491	2580	2672	2768	2866	2969	3075	28,555 hours
Turning	0	0	0	0	0	0	0	0	0	0	0	0	0
Loading	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials	4160	4185	4307	4240	4371	4468	4593	4701	4866	4911	5031	5154	50,867 hours
Manpower	2.0	2.0	2.1	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5	35% increase
DIESEL CONSUMPTION GALLONS													
Hauling @ 5.5 mph	4012	3740	3882	3081	3343	3511	3587	3684	3081	3773	3865	3959	39,515 gallons
Turning @ 6.0 gph	0	0	0	0	0	0	0	0	0	0	0	0	0
Loading @ 2.0 gph	0	0	0	0	0	0	0	0	0	0	0	0	0
totals	4012	3740	3882	3081	3343	3511	3587	3684	3081	3773	3865	3959	39,515 gallons
Diesel cost / gallon	0.82	0.84	0.86	0.88	0.89	0.91	0.93	0.95	0.97	0.98	1.01	1.03	39,515 gallons
0.021 inflation rate/year	\$3,301.60	\$3,142.43	\$3,229.65	\$2,698.84	\$2,989.20	\$3,206.06	\$3,352.83	\$3,506.31	\$2,984.37	\$3,743.83	\$3,917.12	\$4,094.43	\$ 39,973.37 fuel \$
Savings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$
MILEAGE													
Hauling @ 28 miles per trip	20636	19236	19964	15648	17192	18060	18498	18947	15648	19407	19878	20360	223,875 miles
Turning hours X 5 = miles	0	0	0	0	0	0	0	0	0	0	0	0	0
Loading hours X 5 = miles	0	0	0	0	0	0	0	0	0	0	0	0	0
totals	20636	19236	19964	15648	17192	18060	18498	18947	15648	19407	19878	20360	223,875 miles
Savings	0	0	0	0	0	0	0	0	0	0	0	0	0
ADDITIONAL EXPENSES													
Marketing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$
totals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$

Subject: Operations Costs / Air Dry and Take solids to landfill

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total Cost Through 2008
% REUSE	0	0	0	0	0	0	0	0	0	0	0	0	0
Production / Dry tons	2,107	2,212	2,323	2,439	2,551	2,689	2,824	2,965	3,113	3,269	3,432	3,604	
LABOR MANHOURS/YEAR													
Hauling	737	687	214	170	184	194	198	203	170	208	213	218	2,658
Aerobic dig.	1333	1333	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	14,853
Sludge processing	2090	2165	2242	2322	2405	2491	2580	2672	2768	2866	2969	3075	28,555
Turning	0	0	260	312	374	449	539	647	776	932	1118	1342	6,749
Landfill	0	0	130	143	157	173	190	209	230	253	279	307	2,072
totals	4,160	4,185	4,198	4,299	4,473	4,659	4,800	5,003	5,298	5,611	5,930	6,293	54,888 hours
Manshower	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.4	2.5	2.7	2.9	3.0	65% increase
DIESEL CONSUMPTION GALLONS													
Hauling @ 5.44 gph	4009	3737	1164	924	1092	1053	1076	1104	924	1131	1159	1187	14,462
Turning @ 6.00 gph	0	0	1560	1872	2246	2698	3205	3810	4605	5599	6706	8048	40,496
Loading @ 2.00 pph	0	0	260	286	315	348	381	419	461	509	562	620	4,144
totals	4009	3737	2384	3092	3553	4094	4684	5405	6242	7228	8424	9923	59,101 gallons
Diesel cost / Gallon	0.82	0.84	0.86	0.88	0.89	0.91	0.93	0.95	0.97	0.99	1.01	1.03	
0.021 inflation rate/year	\$3,299.37	\$3,140.12	\$2,559.53	\$2,699.20	\$3,186.32	\$3,728.37	\$4,375.54	\$5,144.34	\$5,871.98	\$7,171.16	\$8,533.41	\$10,186.91	\$ 56,606.88 fuel \$
Savings	\$2	\$2	\$770	(\$0)	(\$197)	(\$532)	(\$1,023)	(\$1,636)	(\$2,878)	(\$3,427)	(\$4,618)	(\$6,092)	(\$ 19,933)
MILEAGE													
Hauling @ 28 miles per trip	20636	19236	5899	4754	5158	5418	5549	5684	4754	5622	5963	6108	95,073
Turning hours X 5 = miles	0	0	1300	1560	1872	2246	2698	3235	3882	4658	5590	6708	33,746
Loading hours X 5 = miles	0	0	650	768	891	1047	1245	1487	1782	2145	2532	2943	15,359
totals	20636	19236	7849	6314	7027	7661	8092	8417	7089	8427	9155	9533	130,359 miles
Savings	0	0	12,875	8,534	10,182	10,396	10,255	10,028	7,212	8,327	8,325	7,545	95,056
ADDITIONAL EXPENSES													
Marketing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
totals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

BASED ON DO NOTHING
 Marketing increase 15%
 Marketing expenses \$#####
 Fuel savings 95,056
 mileage savings

Subject: Operations Costs / Air Dry with 100% reuse

	1987	1988	1989	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total Cost Through 2008
% REUSE	0	0	0	0	0	0	100	100	100	100	100	100	
Production / Dry tons	2,107	2,212	2,323	2,439	2,561	2,689	2,824	2,965	3,113	3,269	3,432	3,604	
LABOR MANHOURS/YEAR													
Hauling	737	687	130	135	139	144	150	155	160	166	172	178	2,217
Aerobic dig.	1333	1333	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	14,653
Sludge processing	2090	2165	2242	2322	2405	2491	2580	2672	2768	2866	2960	3075	28,555
Turning	0	0	260	312	374	449	539	647	776	932	1,118	1,342	6,749
Loading	0	0	130	143	157	173	190	209	230	253	279	307	2,072
totals	4160	4185	4114	4264	4428	4610	4811	5035	5287	5589	5889	6253	54,447
Manpower	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.7	2.8	3.0	50% increase
DIESEL CONSUMPTION GALLONS													
Hauling @ 5.44 gph	4009	3737	707	732	759	786	814	843	873	904	936	970	12,061
Turning @ 6.00 gph	0	0	1560	1672	2246	2696	3235	3882	4658	5590	6708	8049	40,496
Loading @ 2.00 gph	0	0	260	286	315	346	381	419	461	507	557	613	4,144
totals	4009	3737	2527	2690	3320	3827	4429	5133	5992	7000	8201	9632	56,700
Diesel cost / Gallon	0.82	0.84	0.86	0.88	0.89	0.91	0.93	0.95	0.97	0.99	1.01	1.03	
0.021 inflation rate/year	\$3,209.37	\$3,140.12	\$2,167.98	\$2,531.67	\$2,968.61	\$3,494.62	\$4,129.01	\$4,895.38	\$5,822.56	\$6,945.81	\$8,308.21	\$9,962.46	\$54,366.43
Savings	\$0	\$0	\$1,162	\$167	\$21	(\$269)	(\$776)	(\$1,389)	(\$2,828)	(\$3,202)	(\$4,393)	(\$5,868)	(\$17,395)
MILEAGE													
Hauling @ 28 miles per trip	20636	19236	3640	3770	3905	4044	4188	4338	4493	4653	4819	4991	42,841
Turning hours X 5 = miles	0	0	1300	1600	1872	2246	2696	3235	3882	4658	5590	6708	35,746
Loading hours X 5 = miles	0	0	650	715	787	865	952	1047	1152	1267	1393	1533	10,358
totals	20636	19236	4940	5330	5777	6290	6884	7573	8374	9311	10409	11689	86,946
Savings	0	0	15,024	10,518	11,415	11,770	11,614	11,375	7,474	10,068	9,469	8,861	107,416
ADDITIONAL EXPENSES													
Marketing	\$0	\$0	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000
totals	\$0	\$0	\$1,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000

BASED ON DO NOTHING
Manpower increase 11%
Marketing expenses \$2,000.00
Fuel savings #####
mileage savings 107,416

Staff Report

Date: April 16, 2003

To: City Council/Board of County Commissioners

From: Greg Trainor, Utility Manager

Re: Joint Persigo Meeting April 25, 2003
Privatization of Grease Handling Facility

See Attached staff report of October 14, 2002, Persigo Grease and Septage Receiving Facility

Current Status of “privatization” efforts by private business interests

Mr. Galen Kettle is proceeding through the process of opening a sand trap/restaurant grease receiving facility in the Grand Junction area. State and local regulations require Mr. Kettle to obtain both a Mesa County Conditional Use Permit (CUP), and a State of Colorado Certificate of Designation (CD).

As a result of the cost associated with obtaining the CD, Mr. Kettle has decided to determine if he will be able to obtain the CUP, before investing the money into the extensive geological research required in obtaining the CD.

The following progress has been made by Mr. Kettle on this project:

- a) Purchased 80 acres of desert property approximately one mile north of the I-70 / 33-Road overpass.
- b) Attended a March 12, 2003, Pre-application meeting with the Mesa County Planning Department.
- c) Retained a Professional Engineer for the preparation of site development plans, and completion of the CUP application. It is anticipated that the CUP submission will occur by the end of May or first part of June, 2003.

Once the CUP has been obtained, Mr. Kettle plans to proceed with obtaining the CD from the State. As a result, Mr. Kettle has anticipated his facility start-up to occur toward the end of this year.

Description of Operation:

According to Mr. Kettle, his facility will only receive restaurant grease and sand trap waste; as a result odor is not expected to be a problem. He plans to implement the use of a separation tank that will be installed at ground level, and will not be visible beyond his property line boundaries. The tank will be designed to retain solids, and allow the cleaner water to flow through and be diverted to an evaporation pond. The pond will measure approximately one half acre in surface area, and maintain an average liquid depth of 2.5 feet.

CITY OF GRAND JUNCTION / MESA COUNTY PERSIGO SEWER SYSTEM

CITY COUNCIL/ COUNTY COMMISSIONER AGENDA						
Subject	Persigo Grease and Septage Receiving Facility					
Meeting Date	October 14, 2002					
Date Prepared	October 10, 2002					
Author	Trent Prall		City Utilities Engineer			
Presenter Name	Greg Trainor		City Utilities Manager			
Report results back to Council	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	When	To Be Determined
Citizen Presentation	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	Name	
<input checked="" type="checkbox"/>	Workshop		Formal Agenda			Consent

Summary:

The Persigo Wastewater Treatment Plant is nearing capacity on its ability to accept grease. With only one private receptacle available on the western slope, costs and timely delivery of service is driving Persigo to consider a \$1.6 million facility to meet demands.

Background:

Grease has long been a maintenance issue with sewage collection systems. Grease has a tendency to collect and stick to the sides of sewer pipes similar to cholesterol sticks to the side of arteries in the human body. Grease will accumulate to the point where it breaks off and then floats downstream where it usually gets stuck against another grease deposit or restriction in the sewer system.

In the last 20 years, grease interceptors for grease generating facilities, such as restaurants, have become a “standard” method to remove grease from the collection system. Grease is then hauled to either a private repository (landfill) or a public wastewater treatment plant.

In 1995, the Persigo system started its Grease Reduction Program. Under this program, new food preparation facilities were required to install grease

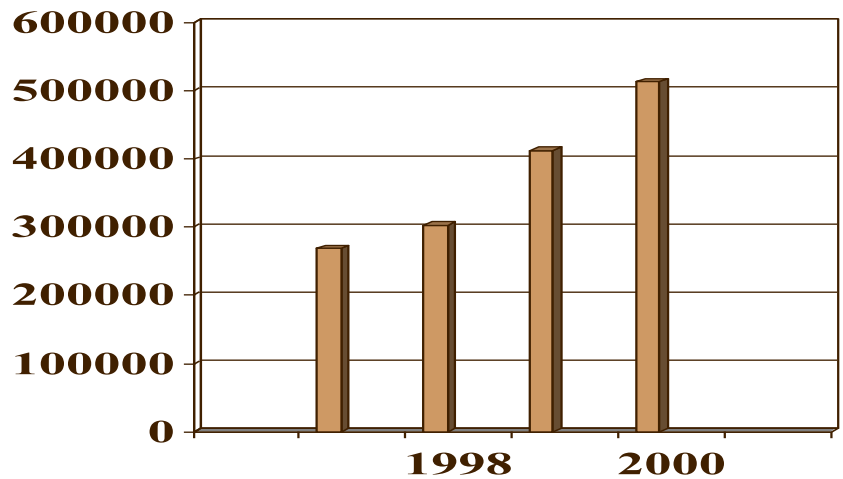


interceptors. Existing facilities were required to pay accelerated cleaning charges. As a result grease blockages in the collection system dropped 99%.

CURRENT PROBLEM: Domestic Wastewater treatment plants are not designed to treat large quantities of grease. The discharge permit for Persigo limits grease to only 2000 gallons per day or 730,000 gallons per year. Currently, Persigo is having haulers booking grease loads through July 2003. This includes Saturday and Sundays.

Since 1997 grease quantities have increased from 269,000 gallons per year to 630,990 gallons per year in 2001 (134% or 23% per year). **Projected quantities in 2002 will exceed our discharge permit limit of 730,000 gallons per day.**

1997 = 269,000
1998 = 303,000
1999 = 412,000
2000 = 513,000



ALTERNATIVE #1. NULL (Do Nothing) ALTERNATIVE. Persigo can continue to take up to 730,000 per year with the remaining market demand being referred to the privately managed, licensed, Deer Creek Disposal Facility located approximately 20 miles south of Grand Junction off of Hwy 50. Currently Persigo charges \$0.03 per gallon as opposed to the Deer Creek facility which charges \$0.15 per gallon. From a haulers standpoint, that is a wide variation in cost that makes it hard to maintain consistent pricing for customers.

When demand gets high enough, another private facility may be developed. On October 9, City staff discussed a private grease facility with a local businessman. His proposal was for a facility north of Persigo about 10 miles that would be open for grease, septage, and sand/oil separator pumpings. He appears to be on top of Colorado Department of Health and Environment permitting requirements as well as Mesa County condition use permit requirements. His only concern with his financial plan is if Persigo was to remain or expand its grease operations. Therefore he

would like some assurance that Persigo would not accept grease, in exchange for a cap on rates, in order to make the project viable.

ALTERNATIVE #2. EXPAND GREASE HANDLING CAPACITIES AS PERSIGO.

The current proposal is to design and construct a \$1.6 million grease and septage facility. This facility would take the dewatered grease, extract the liquid portion that would then run through the treatment plant. The grease would then be consolidated and hauled to the landfill for disposal. This process would also reduce the BOD loadings on the rest of the plant. If City Council / Board of County Commissioner approved the facility in December, the facility could be up and running by March 2004.

Estimated operations and maintenance costs for the facility would run about \$100,000 over current operations, including an additional half-time position. However the additional staff would not be recommended until further manpower evaluations are completed after the facility is operating. Based on 776,000 gal grease/year (the 2002 estimated demand) and 2,000,000 gallons of septage per year, **the cost per gallon would be \$0.103**. This considers operating costs of \$125,638/year as well as repayment of the facility to the sewer fund at an estimated cost of \$159,660 per year.

The \$0.103 per gallon is approximately 33% less than the \$0.15 per gallon currently charged

The sewer fund is already looking at rate increases of 5% for 2003 and 2004 and 2.5% rate increases through 2011 to fund existing facility / interceptor / collection system replacement and the Combined Sewer Elimination Project and the Septic System Elimination Program. The sewer fund could handle the \$1.6 million expenditure however the fund balance would slip from \$4,332,792 to \$2,655,259 in 2005 (the low year in the financial plan). The more critical number is the Minimum Working Capital (MWC) which would only be exceeded by \$8,000 in 2003 with the grease and septage facility being funded. Without the grease handling facility, the sewer fund would be approximately \$1.6 million over the \$586,522 MWC.

WHAT ARE OTHER AREAS DOING? With the exception of Craig, there are no publicly maintained grease receiving facilities on the Western Slope. Out of 32 Colorado agencies / municipalities contacted, only six accepted grease. Private disposal facilities are what meet demands in other areas.

RECOMMENDED ALTERNATIVE:

The apparent need for a grease handling facility is approximately 40,000 gallons in excess of Persigo's current capacity of 730,000 gallons. Staff's recommendation is to consider total privatization of grease handling. Staff would recommend that the City/County sewer system sign an agreement with the businessman identified in

Alternative #1 that roughly states that Persigo will no longer accept grease and septage once the private individual's facility is up and running provided that his rates will not exceed \$0.10 per gallon received for 10? years. Other appropriate clauses could be added to enable the City to back out of agreement if the individual were to lose the license or CUP or his rates exceeded the above amount.

The private businessman believes that contingent upon CDPHE and Mesa County approvals, he could be up and running by March 2004.

Privatization would reduce the burden on the sewer fund to try and fund another major capital project within the currently planned rate structure yet still enable Persigo to have some control on pricing to the local customers.

MEMORANDUM

DATE: April 25, 2003

TO: Grand Junction City Council and Mesa County Board of Commissioners

FROM: Mark Relph, City Public Works & Utilities Director

RE: **Joint Persigo Meeting - Central Grand Valley, Orchard Mesa and Fruitvale Sanitation Districts**

CC: Kelly Arnold, City Manager

Since the last Joint Persigo meeting of October 14th, 2002, City and County have met with Mr. Larry Beckner, representing the Special Sanitation Districts, to discuss a proposal on how the Persigo System might participate with the special districts in the construction of capital improvements within the special district boundaries. Our latest meeting was April 17, 2003.

At his time, staff has delivered to the Special Districts a draft proposal or concept that would allocate \$500,000 annually for the use of capital improvements within the Special Districts. This amount would be divided among the three (3) districts based upon their flow or Residential Equivalent Units (EQUs).

The most recent discussions have reviewed a proposal that would take a portion of these funds and allocated them to the Special Districts based upon the amount of District capital funds allocated to improvements. In other words, use Persigo funds as a match to the Special Districts to reward those that are actively planning and constructing capital improvements. Further discussion is necessary to identify the details.

Part of the draft proposal to the Special Districts identified dissolution of the Districts as an issue that would have to be formalized. While City and County staff have proposed a shorter timeline (3 to 5 years), the Districts are looking at a longer time frame (7 to 9 years). This particular issue will require further discussion to create a framework that is acceptable to all parties involved. City and County staff with the input of the Districts are to draft another proposal by the first of May. Staff anticipates presenting to the Policy Makers a more formal document by late Spring.

MEMORANDUM

DATE: April 25, 2003

TO: Grand Junction City Council and Mesa County Board of Commissioners

FROM: Mark Relph, City Public Works & Utilities Director

RE: **Joint Persigo Meeting - Clifton Sanitation District #2**

CC: Kelly Arnold, City Manager

The City of Grand Junction has received from the Clifton Sanitation District #2 a proposal, whereby the District would connect to the Persigo System and eliminate their treatment process or responsibility. The proposal identifies the issues associated with cost, but does not address any of the other issues associated with development and the Persigo Agreement.

Staff is currently reviewing the physical and financial impacts to the Persigo system. Staff would be presenting that analysis at a future date and would be looking for direction on this and the other issues associated with the connection of Clifton Sanitation District #2 to the Persigo system.

**Attachment 5
Boundary Adjustments 21.5, 22 and H Roads**

JOINT PERSIGO MEETING
GRAND JUNCTION CITY COUNCIL
AND
MESA COUNTY BOARD OF COMMISSIONERS
24 APRIL 2003

AGENDA TOPIC: 21 ½ / 22 ROADS & H ROAD AREA – 201 BOUNDARY

ACTION REQUESTED: Approval to proceed with a public process to notify affected landowners of a public hearing consider adjusting the 201 boundary at the July Joint Persigo meeting.

PROJECT DESCRIPTION: A request to consider proceeding with a boundary adjustment of the 201 Area to include properties zoned for commercial and industrial uses.

RECOMMENDATION: Approval to proceed with the formal hearing process to consider extension of the 201 boundary to include those properties zoned for commercial and industrial uses and four parcels of land zoned AFT as identified on the enclosed maps. The process should include formal notification of a public hearing to owners of all potentially added properties and surrounding properties.

BACKGROUND

At the October 14, 2001 Joint Persigo meeting staff was directed to conduct initial analysis of the 21 ½ and H Roads, and 22 and H Road commercial / industrial area for potential inclusion on the 201 boundary. Information on zoning, current land use, future land use, drainage basins, and sewer capacities was requested and is included in this report.

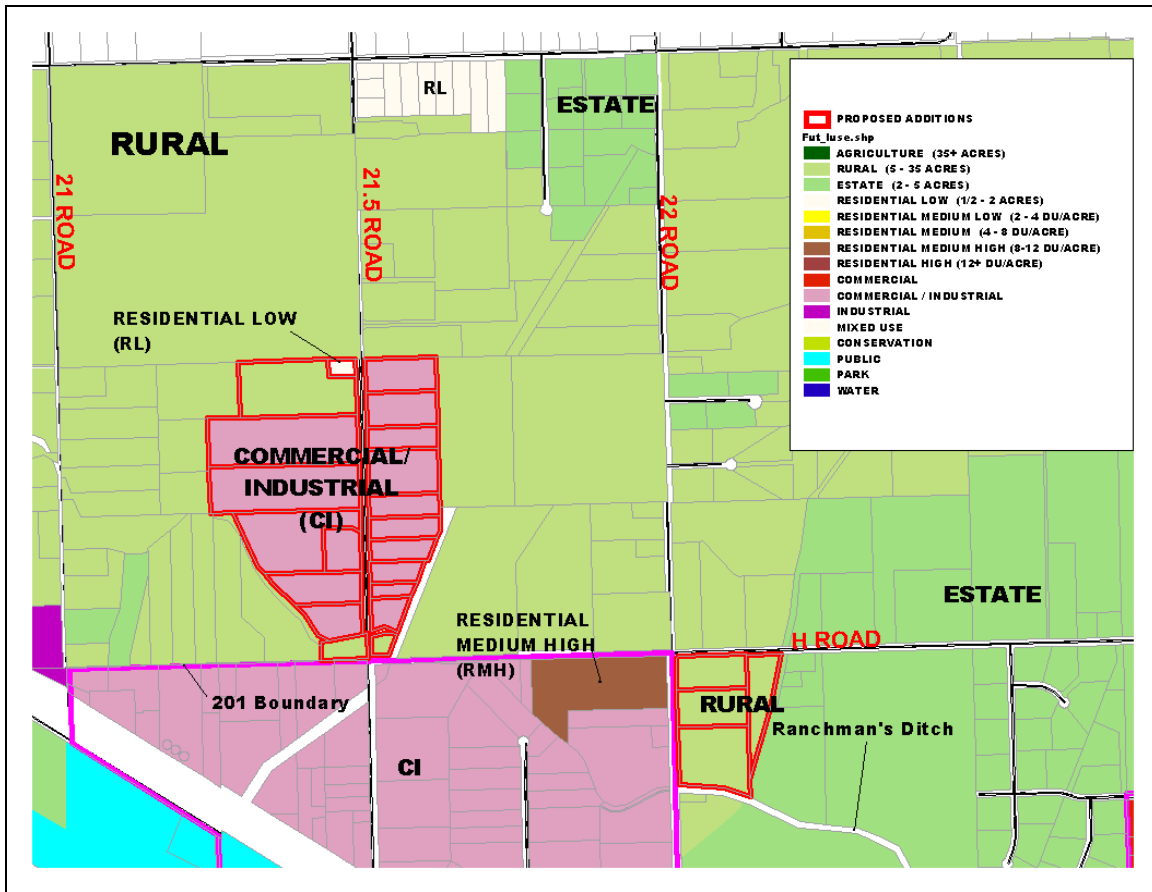
ANALYSIS

The proposed boundary adjustment includes two separate areas with a total of 110 acres comprised of 24 parcels. The larger area is on both sides of 22 ½ Road north of H Road (89 acres, 20 parcels). The smaller area (21 acres) is on the east side of 22 Road south of 22 Road. An area south of the Ranchman's Ditch has (2 parcels, 51 acres) on the east side of 22 Road north of Interstate 70 requires more research to determine the its zoning status and whether it should be included in the adjustment.

Future Land Use Designation in Grand Junction Growth Plan and Mesa Countywide Land Use Plan.

Future Land Use	Acres	Parcels
Commercial/Industrial	75	16
Rural	34	7
Residential Low (1/2 to 2 acre)	1	1

**PROPOSED 201 BOUNDARY ADJUSTMENT
FUTURE LAND USE DESIGNATION**



Current Zoning of Properties

21 1/2 Road

Properties north of H Road on 21 1/2 Road to about H 1/2 Rd are primarily zoned Planned Unit Development or Planned Commercial (PUD) for commercial and light industrial uses. These properties were rezoned from AFT to PUD/PC and subdivided as follows:

- 1981 – River View Commercial Subdivision
- 1981 – E & C Commercial Park Subdivision
- 1995 – Ferris Commercial Parks Subdivision
- 1997 – KN Energy Park PUD
- 1999 – Nelson PUD
- 2000 – Kipp Simple Land Division
- 2001 – Jobsite PUD

Two parcels at the northwest and northeast corners of H and 21 1/2 Roads and two parcels on the west side of 21 1/2 Road immediately south of the H 1/2 Road alignment are zoned AFT.

22 Road

Properties on the east side of 22 Rd south of H Road are zoned Planned Industrial. The properties were rezoned from AFT to PI and subdivided as follows:

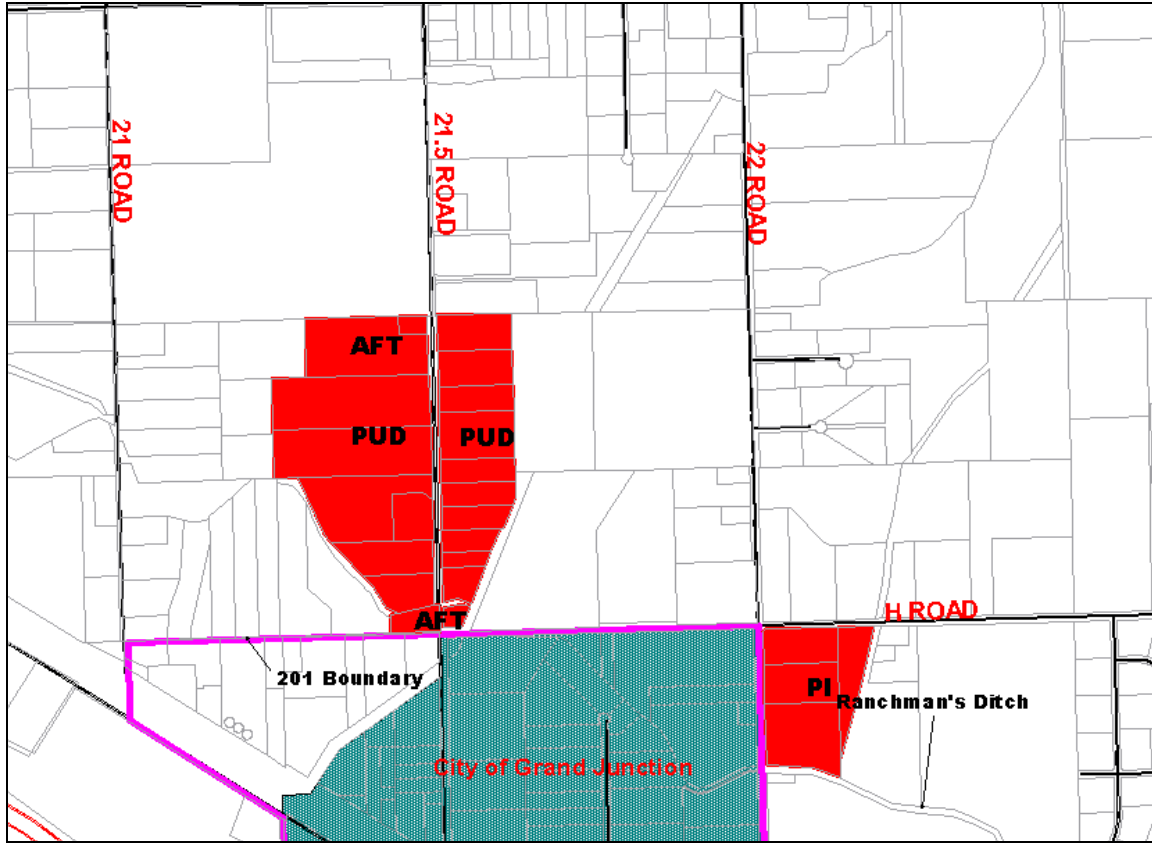
- 1981 – W. R. Hall Industrial PI rezone
- 1983 – T.I.C. Industrial Park
- 1984 – Swanson PUD

More research is required to determine the zoning status of the parcel of land south of the Ranchman’s ditch.

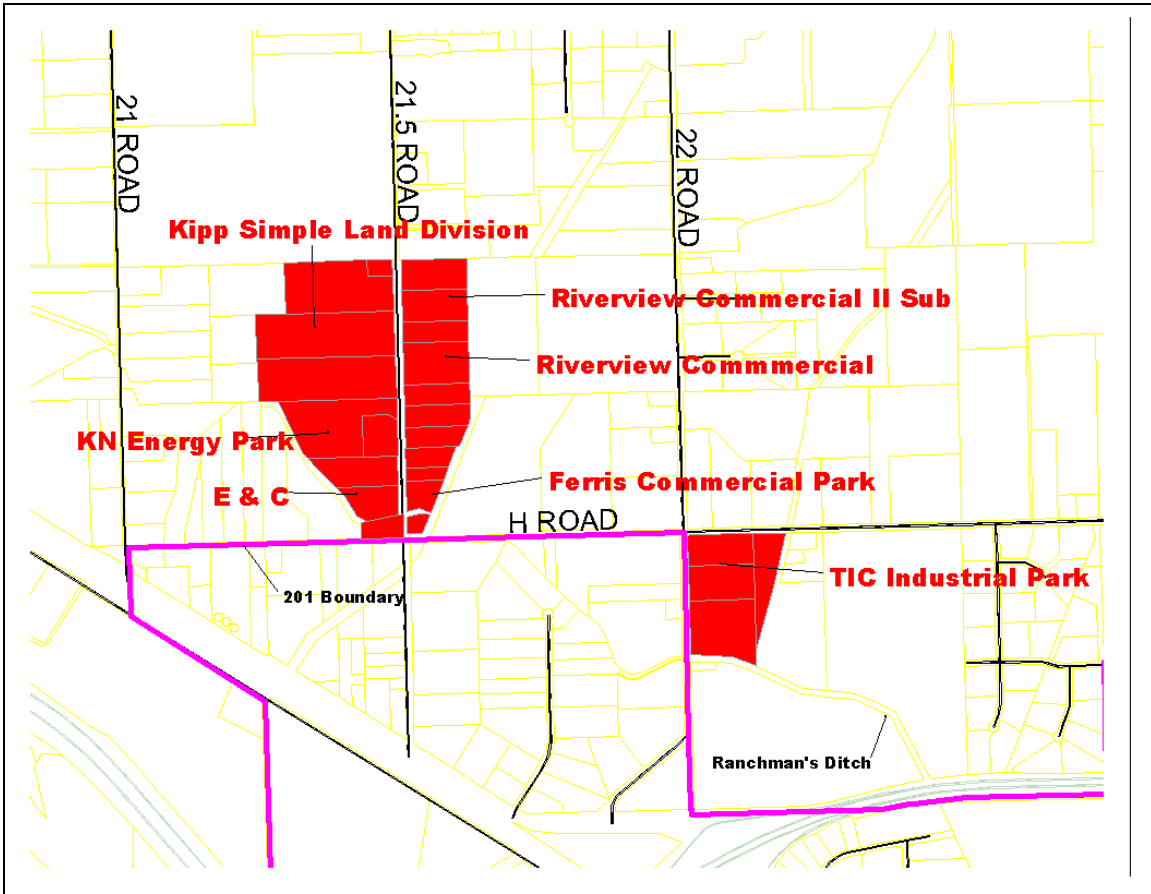
Zone District	Acres	# of Parcels
PUD / PC <i>(Along 21 1/2 Rd)</i>	75	16
PI (Planned Industrial) <i>(22 and H Rd)</i>	21	4
AFT	14	4

PROPOSED 201 BOUNDARY ADJUSTMENT

ZONING



**PROPOSED 201 BOUNDARY ADJUSTMENT
PLATTED
SUBDIVISIONS**

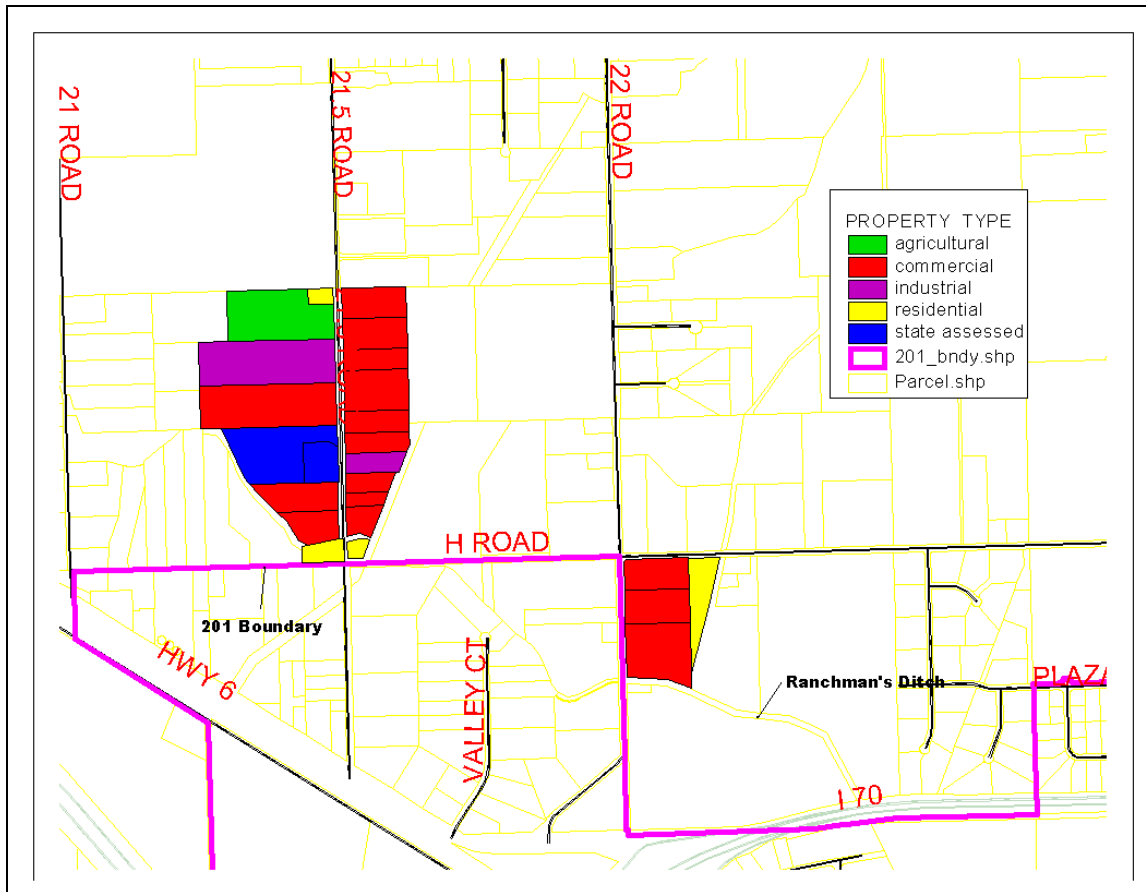


Current Use of Properties

The Mesa County Assessor's office has classified the property types (current land use) of the proposed area to be added to the 201 area as follows:

Property Type	Acres	# of Parcels
Agriculture	11	1
Commercial	65	15
Industrial	15	2
Residential	7	4
State Assessed (Oil and Gas)	12	2

**PROPOSED 201 BOUNDARY ADJUSTMENT
ASSESSOR'S PROPERTY TYPE
CLASSIFICATION**



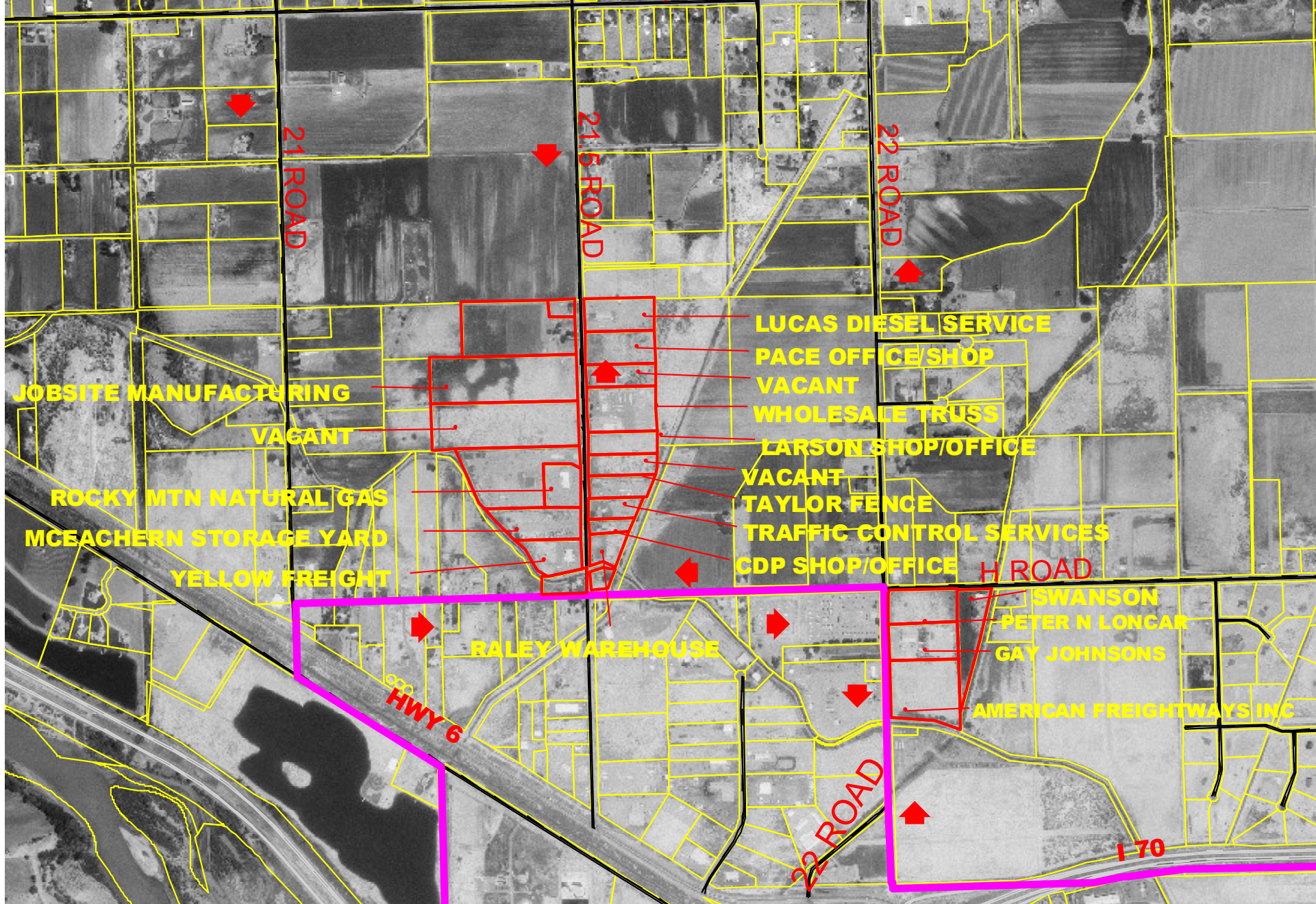
PERSIGO AGREEMENT

If the 201 boundary is expanded:

1. Connection to the Persigo sewer system will be required for development of vacant properties and redevelopment of existing businesses pursuant to applicable County and City Codes unless a variance is granted per the regulations, and
2. annexation to the City of Grand Junction will be required for future development of vacant properties and redevelopment or expansion of existing businesses pursuant to the definition of annexable development in the Persigo Agreement.

CONCLUSIONS:

1. The area can be serviced by sewer (see attached memorandum from Trent Prall, City Utility Engineer).
2. Based on the staff analysis the area would:
 - a. not qualify for any "Trunk Line Extension" funds per the requirements adopted previously by the Council and Commissioners.
 - b. not be eligible for the Septic System Elimination Program.
 - c. require creation of an improvement district to fund construction of sewer.



Memorandum

Date: April 15, 2003

To: Mark Relph, Public Works and Utilities Director
Greg Trainor, City Utility Manager
Bob Blanchard, Community Development Director
Keith Fife, Mesa County Long Range Planning

From: Trent Prall, City Utility Engineer

Project: 21 ½ Rd and 22 Rd Commercial Areas

Subject: Sewer Feasibility

Executive Summary

Sewer can be extended north into the area along 21 ½ Rd at a cost between \$225,000 and \$300,000. Sewer can be extended into the area east of 22 Rd at a cost between \$153,000 and \$206,000.

If any of these areas are to be considered for inclusion into the 201 Sewer Service Area, then staff suggests that the Policy Makers consider the following issues:

1. Inclusion into the 201 Area requires development to connect to the Persigo System, unless a variance is granted per the regulations. It does not necessarily provide opportunities for the System to fund any portion of new sewer line construction.
2. The construction of sewer in this specific area would likely occur under an improvement district. This area would not qualify for any "Trunk Line Extension" funds per the requirements adopted previously by the Council and Commissioners.
3. If this area was to be considered for an improvement district, then the Policy Makers would have to decide if any subsidy is appropriate. If so determined, a new policy would likely have to be considered along with a review of the impacts to the sewer rates.

The current Septic System Elimination Program (SSEP) was structured towards the existing residential septic systems within the 201 Boundary with a subsidy of 30% of the construction costs. Staff has assumed this particular area being considered would not be eligible for the SSEP.

4. The Policy Makers may want to consider making the inclusion of this area dependent upon the return of a successful petition by the property owners for a sewer improvement district.
5. Staff would recommend that the cost for any improvement district should be based on \$/acreage in order to fairly assess costs to the commercial beneficiaries.

General Background

In October 2002, Mesa County planning staff requested the City Council and Board of County Commissioners to consider adding two commercial areas into the Persigo WWTP 201 Service Boundary. Staff was authorized that the area warranted further study and to summarize recommendations at a future joint meeting of the Council and the Board. The analysis below covers the physical aspects associated with adding the commercial areas to the 201.

Funding Analysis

If the subject areas were formally added to the 201, sewer lines could then be constructed to serve the areas. The 75 acre commercial area along 21 1/2 Rd is comprised of 16 properties. Sewer to this area would cost between \$225,000 and \$300,000. The 21 acre commercial area east of 22 Rd is made up of 4 properties. To add the areas would cost between \$153,000 and \$206,000.

Sewer Improvement Districts. Sewer IDs have become a very popular mechanism for financing sewer improvements to areas. Since the inception of the Septic System Elimination Program (SSEP) in May of 2000, 14 sewer improvement districts have been formed bringing sewer to over 800 homes. If a sewer improvement district was proposed the costs could evenly be distributed over the benefiting properties either on \$/lot or \$/acre cost. The table below depicts the costs of the improvements without the 30% SSEP subsidy which is discussed later.

Area	Cost for sewer	# of lots	Cost per lot	# of acres	Cost per acre
21 1/2 Rd Commercial	\$ 275,000	16	\$ 17,188	75	\$ 3,667
22 Rd Commercial	\$ 185,000	4	\$ 46,250	21	\$ 8,810

Trunk Extension Fund. One common misconception would be for the sewer trunk extension fund to pay for the sewer line. This fund is reserved for sewer lines that serve much larger basins than the one that would be served by this sewer line. There are a number of parameters governing the use of the fund when it was established by City and County resolution in 1993. (City Resolution 47-93 / County 93-118). The parameters include: A. line must be shown on 1992 HDR Basin Study, B. trunk line must be located in an area of the 201 Sewer service area that is developed or developing; C. At least 15% of the total cost of the trunk line shall be committed by property owners within the basin; and D. The financial objective of the sewer fund shall be to collect sufficient fees to recover trunk line construction costs and finance further trunk line projects.

Trunk Line Ext Fund Parameter	21.5 Rd	22 Rd
A. Shown on 1992 HDR Study	NO	NO
B. Must be located in 201 in developed or developing area	Could add / developed	Could add / developed
C. 15% of total cost committed by property owners	Possibly	Possibly
D. Self-sustaining revenues	NO	NO

The basin that would serve the facility does not qualify as a trunk.

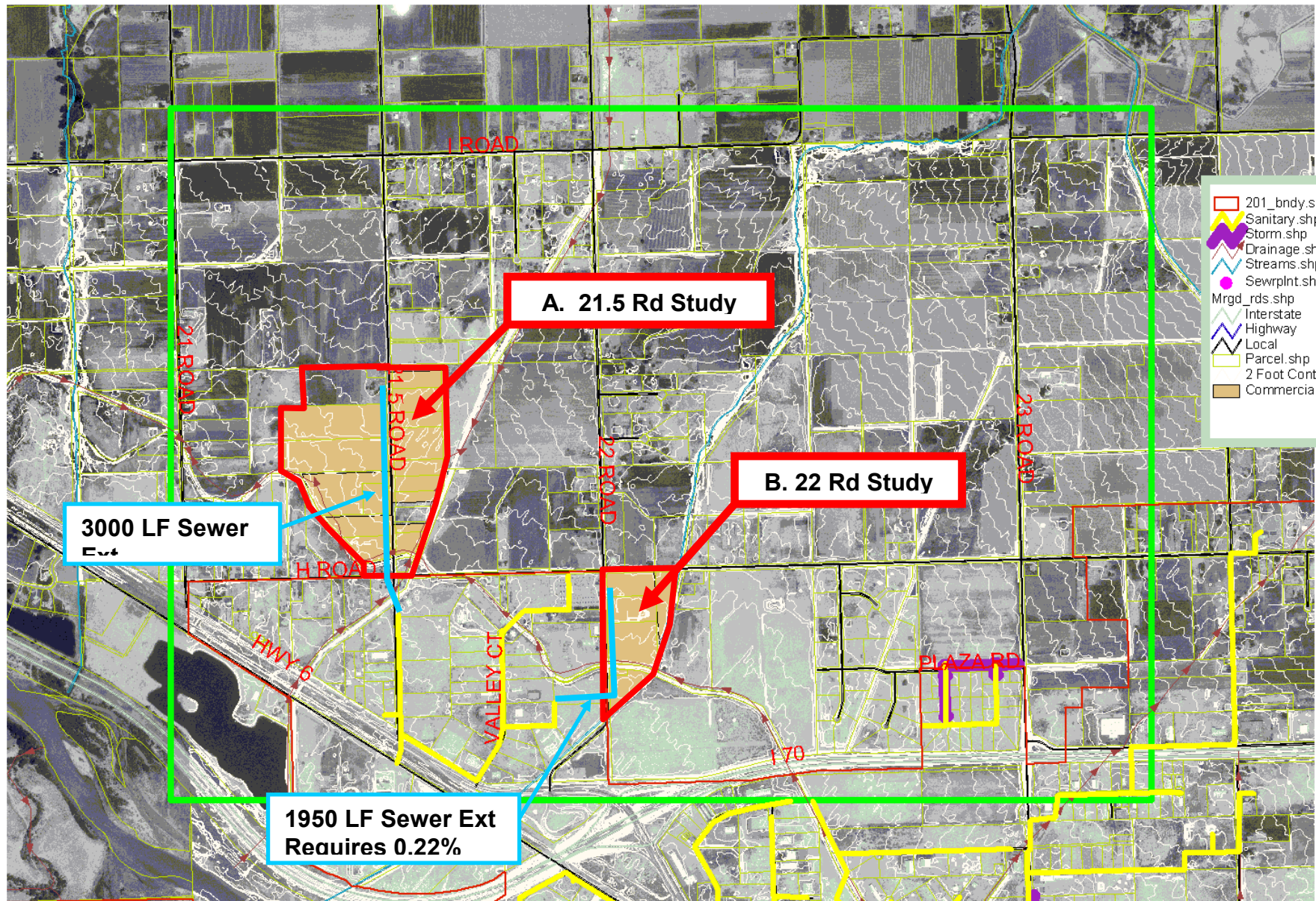
Other Considerations.

A. Expansion of 201 System Boundaries / Capacity issues. The addition of more area than just the commercial properties would require further system evaluation than has been completed to date. A “mass balance” would need to be completed for the 201 to ensure that it has adequate reserve capacity to accept the additional demand that would be placed on the system. However for just the anticipated 20-35 EQUs generated from the two commercial areas, staff is comfortable accepting that relatively small amount of flow due to recent private developments generating less flow than originally zoned and planned into the 201.

B. Outside 201 System / Eligibility for Septic System Elimination Program (SSEP). One other issue is whether a property owner outside the 201 should be eligible for the 30% SSEP subsidy if they were to form an improvement district. Further complicating the discussion, one would include the fact that the SSEP was developed to assist existing residential areas, already within the 201 boundary, form sewer improvement districts.

As these areas are commercial and outside the 201 boundary, one could argue that they would not be eligible for a 30% subsidy.

The net impact on the sewer fund would be between \$114,000 and \$151,000 to pay 30% of the cost of extending sewer service to the commercial areas. These funds are not budgeted as part of the current SSEP and therefore are not included in the current rate structure



**Attachment 6
Procedural Issues**

Sweet

Board of Commissioners

NOV 12 2002



City of Grand Junction, Colorado
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November 8, 2002

Kathy Hall
Mesa County Chairman
Board of Commissioners
P.O. Box 20,000
Grand Junction, CO 81502-5010

Dear Kathy,

Since our annual meeting on the Persigo agreement and with the upcoming follow-up meeting, City Council has been discussing some of the relevant issues for the follow-up meeting. It's led us to three basic questions that we would like the County Commissioners to consider and respond. The questions are:

1. What does the County believe the City's role should be when there are development applications in the Joint Urban Planning Area that are inconsistent with the Growth Plan or that request a change in zone?
2. Will the County support new commercial development in the Joint Urban Planning Area on parcels that were not commercially zoned prior to the Persigo Agreement being adopted?
3. What is the appropriate method of resolution when the City and County disagree on interpretation of any portion of the Persigo agreement and how should that method of resolution be triggered?

We sincerely want to make sure that the Persigo Agreement works for both the City and County, and we have no desire to re-open the entire agreement. Having these answers should lead us to a better understanding of how we can make the agreement work better in the future. We hope you will take time to think about our questions so we can discuss them at the November 21st workshop.

Again, thank you for your patience and diligence as we work through some of the intricacies of the Persigo Agreement.

Sincerely,

Cindy Enos-Martinez

Cindy Enos-Martinez
Mayor

CC: County Commissioners
City Council