

**Village of Cimarron, New Mexico
Wastewater System Improvements
Preliminary Engineering Report**

Prepared for the
Village of Cimarron, New Mexico



Prepared by Nolte Associates, Inc.
Colorado Springs, CO
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NOLTE
BEYOND ENGINEERING

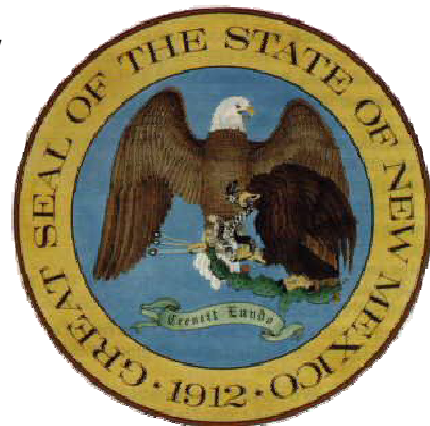


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For and on behalf of Nolte Associates, Inc. Thomas R. Repp, P.E. No. 18084

This revision supersedes all other addendums or issued reports.

I. GENERAL

The purpose of this Preliminary Engineering Report is to identify, provide background on and estimate construction costs for the needed facility improvements for the Village of Cimarron municipal wastewater treatment works and wastewater collection system. This wastewater report is a broad look and shall be used as an outline for a more in-depth future study to obtain additional funding for required improvements.

II. PROJECT PLANNING AREA

A. Location

The Village of Cimarron is located adjacent to the Cimarron River in Colfax County, New Mexico. See attached photos of the area in Appendix A and Vicinity Map in Appendix B.

B. Environmental Resources Present

An environmental review was not required for this level of preliminary engineering report according to the New Mexico Bureau of Construction.

C. Growth Areas and Population Trends

From information gathered in A Comprehensive Plan for Colfax County, the Village of Cimarron is a small rural community encompassing approximately 1,200 acres with development inside the Village limits of approximately 45%. According to the Village of Cimarron 40-Year Water Plan, the existing population is approximately 917 people with a temporary peak tourist population of approximately 20,000 between mid-May and mid-September, although this peak does not appear to increase the volume of wastewater generated (please see Appendix H for treatment flows). Most of this influx is due to the close proximity of the Philmont Boy Scout Ranch.

The Village growth rate has historically been low, and the majority of current development has taken place within the Lambert Heights Subdivision on the north side of the Village. Birth rates are decreasing in Cimarron; however, the retirement population is increasing.

The economy of Cimarron is based on ranching, tourism, forest products, and the Philmont Scout Ranch. The area's major sources of revenue include retail trade, manufacturing, construction, and lodging. Large employers include the Philmont Scout Ranch, the school district, and the tourist businesses. Forest thinning for the National Forest in Colfax County could be a large employer if federal funding is approved. Recent impacts on the Village's economy include the loss of the Tricon Timber lumber mill in 2001 and the shut-down of the York Canyon Mine in 2002. This description of the economy coincides with the land uses within the Village limits which include residential, commercial, municipal, recreational, and industrial. Lastly, the Village is land locked by the Philmont Boy Scout Ranch, the Vermejo Ranch, and the UU Bar Ranch.

According to A Comprehensive Plan for Colfax County, the Village of Cimarron is expected to encounter very little growth and the population is projected to remain stable.

III. EXISTING FACILITIES

A. Location Map

The current wastewater treatment facility and French Lake are located less than one mile east of Cimarron in Section 11, T26N, R19E, Colfax County at the coordinates 36°30'N 104°53'W.

See Sanitary Sewer Vicinity Map in Appendix B.

B. History

The wastewater treatment facility was constructed in the early 1970's. After the Federal Water Pollution Control Act Amendments of 1972 were enacted, the Village of Cimarron applied for and received a National Pollutant Discharge Elimination System (NPDES) Municipal Permit for the discharge of the two lagoons. None of these NPDES Permit records were attainable for review through the Village or the State of New Mexico.

The system consists of two concrete-lined facultative lagoons connected in parallel. The influent headworks consist of a Parshall flume without any screening of coarse solids, i.e. a bar screen system. At the discharge end there are two sand filters with a Parshall flume and head gate system, prior to the effluent being discharged into French Lake. In May 1982, both the sand filters were completely flooded and considered unusable. The current functionality of the sand filters and original hydraulic design is unknown.

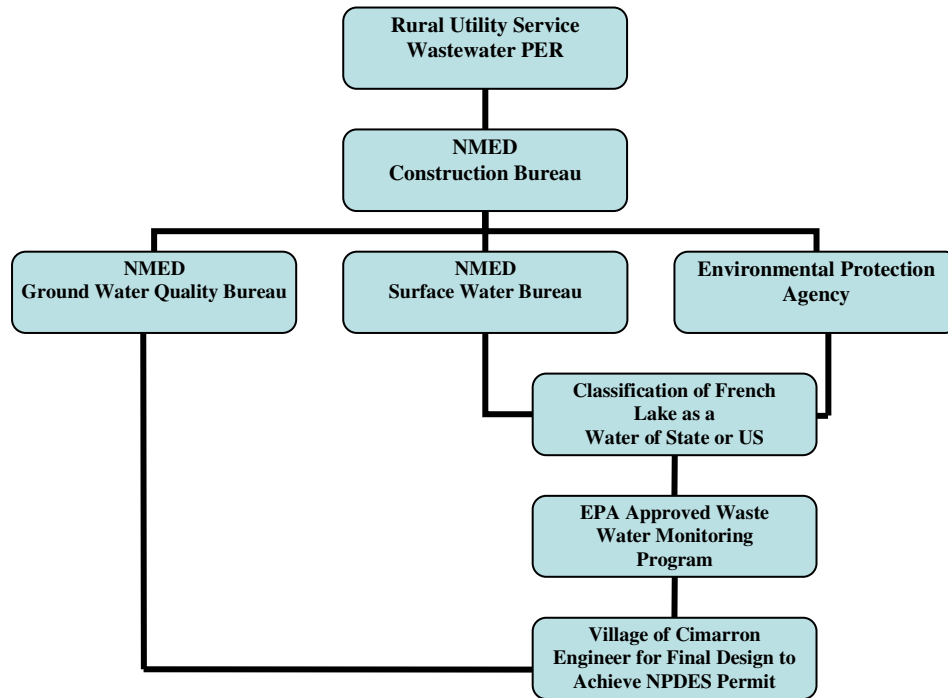
According to the ground water discharge permit, the Village installed three observation wells in 1972 for monitoring the quality of the groundwater around the lagoons. Water from these wells is being monitored by the State of New Mexico Environmental Department (NMED) Ground Water Quality Bureau.

A SB40000R unit "Solar Bee" was installed in the east lagoon on May 20, 2004 with the objective to reduce the sludge depth, improve dissolved oxygen levels, reduce and eliminate odors, and improve the effluent water quality. On April 11, 2006, a service call was made when the "Solar Bee" was found submerged. It was believed that high winds pushed the unit into the shore, breaking a float arm bolt. The motor and float arm were replaced and the "Solar Bee" was tethered in place. Currently, the Solar Bee is inoperable and in the process of having maintenance performed on it prior to its recommission.

According to the NMED Groundwater Quality and Surface Water Quality Bureaus, French Lake has not been classified as a Water of the United States or a Water of the State.

Cimarron’s previous ground water discharge permit from the NMED Ground Water Quality Bureau expired on August 31, 2006. The Village applied for renewal on May 26, 2006. On July 25, 2007, the NMED Ground Water Quality Bureau confirmed via email that the State of New Mexico will renew the permit and the Village can continue with its current operations. See email from Steven Pedro dated July 25, 2007 in Appendix E for details. A NPDES municipal permit was not observed in the records provided for putting together this preliminary engineering report. Upon the classification of French Lake waters, New Mexico Environmental Department has indicated it will proceed with modifying the Village of Cimarron’s permit in accordance with EPA requirements.

Flow Chart to Achieve NPDES Permit



C. CONDITION OF FACILITIES

1. Present Conditions

For the purposes of this Preliminary Engineering Report, the existing infrastructure condition was not fully evaluated in conjunction with the existing treatment system. Furthermore, the integrity of the sanitary sewer network has not been assessed at this time. Maintenance under the contract title of Sewer Cleaning and CCTV (Closed Circuit Television) will be performed in the winter of 2008. This maintenance will help to assess the condition of the sanitary sewer network and establish future capital

improvements programs. An addendum to this PER will be issued to include the capitol improvement program results from the Sewer Cleaning and CCTV project

Domestic wastewater is conveyed to the treatment lagoons through roughly 32,600 lineal feet of conventional gravity sanitary sewer network with one force main for outlying areas. In addition, domestic septage, removed from local septic tanks, is periodically pumped into the lagoons.

Treatment occurs in two concrete-lined facultative lagoons, although it is not confirmed whether or not the concrete liners extend to the bottom of the lagoons. For the purposes of this report, the lagoons are assumed to be concrete lined. Some of the wastewater evaporates from the lagoons while the remainder is assumed to discharge through the sand filters to French Lake. French Lake is currently owned and used by the Vermejo Ranch for irrigating cropland seeded with alfalfa. Information provided through interviews indicate the cropland is used for livestock consumption within Vermejo Ranch.

The “Solar Bee” mentioned in the History section of this report provides some aeration to and mixing of the wastewater for improved treatment.

According to the NMED Ground Water Bureau, the ground water below the site is at a depth of approximately 18 feet with total dissolved solids concentration of approximately 1,370 milligrams per liter.

2. Suitability for Continued Use

In order to determine the suitability of the current facilities, two grab samples were collected from the lagoon system and analyzed by Baca Enterprises on August 31, 2007. The influent sample was taken from the influent Parshall flume and the post treatment sample was taken from the top of the levee on the North side of the lagoon.

These tests showed that the lagoon system is treating the wastewater to acceptable levels except in the removal of fecal coliform. Table 1 shows the pre-treatment and post-treatment sample characteristics as well as state limitations for grab samples as specified in New Mexico Administrative Code (NMAC) 20.6.2.2101.

Table 1 – Current Lagoon Treatment Results

Characteristic	Influent	Effluent	Required
BOD ₅ (mg/L)	138.0	13.8	<30
TSS (mg/L)	88.3	19.7	<30
Settable Solids (mLs/L)	7.0	0	<0.5
Fecal Coliform (colonies/100mLs)	>160,000	30,000	<500
pH	7.67	8.54	6.6-8.6
NH ₃ -N (mg/L)	58.0	13.0	
Temperature (Celsius)	21.2	19.3	
Dissolved Oxygen (mg/L)	0	4.9	

These isolated results would indicate that the lagoons appear suitable for continued treatment if a form of disinfection were installed to reduce Fecal Coliform levels. However, to confirm the lagoons are consistently achieving this level of treatment, a monitoring program has been recommended in the Conclusions section of this report. For detailed information regarding this testing, please see the report titled Baca Enterprises in Appendix C.

3. Adequacy of Current Facilities

Presently, the lagoon liner and the lagoon freeboard concrete are cracking and visually appear to be failing in one location on the southeast corner of the east lagoon. The head works does not have a bar screen, therefore all inorganic material and coarse solids are entering the lagoons. The lagoons need to be serviced for sludge build up and inorganic collections, since they have not been cleaned out since construction.

The headworks are operating without any sort of trash collecting bar screens. This is causing trash and other solids to enter the lagoon system, which are occasionally exiting the lagoons system into French Lake during discharge.

4. Existing Central Facilities/Treatment/Storage/Disposal Capabilities

The discharge process occurs four to five times a year. During this time, a head gate is opened allowing unmeasured volumes of effluent to discharge from the lagoons into French Lake. The effluent is discharged through a Parshall flume with an indistinguishable depth due to the fact that the tape measure is weathered and aged. In addition, this method of flow measurement is inefficient and inaccurate.

D. FINANCIAL STATUS OF ANY OPERATING CENTRAL FACILITIES

The Village of Cimarron has recently increased their sewer rates to accommodate current and future infrastructure repairs and improvements. The current 2007 sewer rate schedule can be seen in Appendix D and is summarized in the table below:

Table 2 – Sewer Rates

Sewer	Base Charge 0-2,000gal	Step 2 2,001-5,000 Per 1,000gal	Step 3 5,001-8,000 Per 1,000gal	Step 4 8,001-10,000 Per 1,000gal	Step 5 10,001-12,000 Per 1,000gal	Step 6 Over 12,001 Per 1,000gal
Residential	5.75	1.15	1.32	1.52	1.75	2.01
Large Commercial (over 120,000 gal./yr.)	14.71	1.52	1.52	1.52	1.52	1.52
Small Commercial	5.75	1.52	1.52	1.52	1.52	1.52

The yearly revenue generated in sewer operations for the 2007/2008 budget is \$43,103.

The yearly expenditure of the Village for sewer operations for the 2007/2008 budget is \$38,445. This includes salary and benefits for the Village employee, as well as system maintenance.

1. Debt Repayments

The Village has two outstanding debts that were taken for utility infrastructure. The first loan was taken in 2004 at a loan amount of \$180,932 and will reach maturity in the year 2044. As of June 30, 2007, the total outstanding amount for this loan was \$136,790. The second loan was taken in 1985 at a loan amount of \$152,000 and will reach maturity in 2025. As of June 30, 2007, the total outstanding amount for this loan was \$117,000. Payment for each of loans comes out of the water operations budget and will not be considered in the sewer operation budget.

2. Debt Service Reserve

The Village annually reserves 12% of the total anticipated expenditures to repay debt in the event that cash generated by operations is insufficient.

3. Short-Lived Asset Reserve

The wastewater treatment plant has a short-lived asset reserve of \$10,000 for pumps, paint and small equipment.

IV. NEED FOR PROJECT

A. Health and Safety, Sanitation, and Security

As shown in Table 1, the lagoons are deficient in treating the wastewater effectively for coliform, which poses a health risk when released into French Lake.

The lack of headworks on the system causes trash and other debris from the sanitary sewer system to flow into the lagoons and on occasion, into French Lake.

Additionally, the freeboard concrete is visibly cracked and is in need of repair or replacement. By visual inspection, the lagoons appear to be properly containing the wastewater with the exception of the manual release of effluent into French Lake as previously stated.

The lagoons are contained within the boundaries of a fence with a locked entrance gate.

B. System O & M

From records and interviews, the following information was obtained:

The sand filters have not been operational since 1982 and need to be repaired or maintained if they will be used as originally designed. If the Village implements another form of wastewater effluent polishing, the sand filters may be discarded and or utilized in other ways.

The sludge blanket on the bottom of the lagoons has not been cleaned in many years and the current depth is unknown. Depending on the depth, this may reduce treatment volume in the lagoons.

As mentioned above, the inflow and infiltration into the existing sanitary sewer system is unknown, but will soon be quantified during the Sewer Cleaning and CCTV contract executed winter of 2008. The results of the Sewer Cleaning and CCTV project will be included as an addendum to this Revised PER

The Village's current operation plan is enclosed within Appendix H.

C. Growth

As mentioned above in the "Growth Areas and Population Trends" Section, A Comprehensive Plan for Colfax County projects very little growth for the Village of Cimarron and that the population will be stable. Because of this, the Village does not require an extensive increase in treatment capacity at this time. Further determination of funding opportunities will reveal the level of additional sewer rate increases.

V. ALTERNATIVES CONSIDERED

A variety of wastewater treatment alternatives were considered for the Village of Cimarron, but two were the most likely to meet their current needs. These two alternatives were aerated lagoons and total evaporative lagoons. The details regarding the consideration of each of alternative can be found below.

1. Aerated Lagoons

A. Description

This alternative will utilize the existing lagoons to create a complete mix lagoon, a partial mix lagoon, a settling pond and a chlorination area. The west lagoon will

be divided into two smaller lagoons through the construction of a partition wall or levee in an effort to create two parallel treatment trains for easy maintenance in the future. Both of the smaller western lagoons will receive sufficient aeration equipment to create a complete-mix regime. In addition, the introduction of aeration can assist with odor control.

By implementing a one year wastewater monitoring plan, the sampling data will reveal the level of aeration required for proper treatment to meet NPDES requirements.

The eastern lagoon will also be divided into two lagoons through the construction of a partition levee or wall. The southern portion will become a partial mix lagoon and the northern portion will be a settling pond. The partial-mix portion of the lagoon will allow for continued treatment of the wastewater and will prevent premature settling of the solids. Having all of the solids depositing in the settling pond will allow for simplified removal of solids during future maintenance.

After settling, the decanted wastewater will receive disinfection treatment before being discharged into French Lake.

B. Design Criteria

The design of the aeration lagoons was completed using the Environmental Protection Agency's Design Manual – Municipal Wastewater Stabilization Ponds published in October 1983.

In order to complete the design, typical values were used where actual data did not exist. Typical domestic wastewater BOD₅ loading characteristics were assumed at 200mg/L and a treated wastewater effluent quality of 30mg/L was used. The influent flow was assumed to be 180,000 gal/day. NMED reported the influent to be up to 175,000gal/day. The lagoon depth is currently unknown, but for the purposes of the design, assumed to be eight feet, which does not account for the sludge currently on the bottom of the lagoon.

To ensure that the wastewater treatment system will be effective into the future, aeration equipment was selected with the ability to satisfy oxygen demands based on a reaction rate coefficient greater than the current needs.

Based on preliminary calculations completed by Aqua-Aerobics Systems, to achieve the proper aeration, 16lbsO₂/hour is required. This can be achieved by installing four 7.5 HP aerators purchased from Aqua-Aerobics. Please see Appendix G for more details.

C. Map – Schematic Layout

See the map titled Complete Aeration Lagoons in Appendix B.

D. Environmental Impacts

There are none at this time. However, an environmental impact study is recommended to appropriately determine the impacts of this preliminary design.

E. Land Requirement

The aeration lagoons will require no additional land and will be able to utilize the existing facultative lagoons without expansion. In order to make the necessary improvements, construction equipment will utilize the existing roads and paths already surrounding the lagoons.

F. Construction Problems

The largest problem in the construction of the aeration lagoons is the time required to thoroughly dry the lagoons to a level suitable for construction. To construct the aeration lagoons, one lagoon will be drained and the sludge hauled to an acceptable recipient of wastewater sludge in accordance with state and federal guidelines, which may be many miles away. Another solution is land application of the sludge into local farm fields as fertilizer in accordance with state and federal guidelines.

The bottom of the lagoon will also need to be tested for the permeability values, and if necessary, a liner installed to prevent wastewater seepage into groundwater beneath the lagoon.

The wall will be constructed and the aeration equipment set in place. Once the first lagoon is completed, the wastewater from the second will be pumped back to the first and the sludge will be hauled off to disposal in accordance with state and federal guidelines, allowing construction to proceed in the second lagoon. Construction will require bypass pumping and a temporary location for disinfection.

G. Cost Estimates

1. Construction

The estimated construction cost for the aeration lagoons is \$785,634. Please see Appendix F for a detailed breakdown of these estimated costs.

2. Non-Construction

Non-construction costs, including permitting, engineering design fees, legal fees, and construction management are estimated to be \$185,000. Please see Appendix F for a detailed breakdown of these estimated costs.

3. Annual Operations and Maintenance

Annual operation and maintenance costs are estimated to be \$63,000. This cost includes employee salaries, benefits, regular equipment maintenance, and electric costs. See Appendix F for a detailed breakdown of these estimated costs.

H. Advantages / Disadvantages

The aeration lagoons will provide thorough treatment of the wastewater for existing flows without the purchase of additional land with exception to a three-phase power easement dedication. The lagoons are capable of receiving additional flows in the future with the addition of more aeration equipment. This solution is cost efficient and an effective way to bring the Village into compliance with the State of New Mexico and EPA requirements.

2. Total Evaporative Lagoons

A. Description

Total evaporative lagoons make use of solar energy to evaporate the liquid from the wastewater influent leaving behind the waste solids in the bottom of the lagoon. There is no effluent from a total evaporative lagoon either by discharge to surface waters or through permeation into the ground. The lagoons are sized to accommodate the complete evaporation of the influent wastewater as well as any precipitation expected for the area. Cimarron's dry climate and breezy environment allows for the consideration of the total evaporative lagoon alternative.

To meet the requirements set forth in the NMAC 20.7.3.806, the depth of the lagoon is set to operate within the range of 24 to 30 inches of wastewater, allowing for a complete penetration of solar energy to the liquid. Wastewater enters the lagoon through a network of distribution laterals that are covered in gravel and sand allowing for even distribution throughout the lagoon.

B. Design Criteria

The first step in determining the feasibility of this alternative was to determine annual precipitation and evaporation data for the area. Average monthly and annual precipitation data were collected from the National Oceanic and Atmospheric Administration's weather station located in Cimarron.

Monthly evaporation data were collected at Eagle Nest Reservoir, which is 20 miles west of Cimarron in Eagle Nest, NM. The evaporation rate is measured using a Class A Evaporation Pan with recorded monthly averages and yearly evaporation data. The evaporation pan data must be adjusted to account for actual lake evaporation considering the small depth of the evaporation pan and the added heat transfer through the sides and bottom of the pan. An adjustment factor of 0.7 was used, which is a typical adjustment factor in this type of application.

Per NMAC 20.7.3.806, annual evaporation data were collected from the "Gross Annual Lake Evaporation, New Mexico," USDA, April 1972. This map showed an annual lake evaporation of roughly 45 inches per year, which is consistent with the monthly Evaporation Pan data collected from Eagle Nest Reservoir.

To reduce the required acreage, yet still comply with NMAC 20.7.3.806, which requires total evaporative lagoons to be between 24 and 30 inches deep, the lagoon depth was set to 30 inches.

Under these conditions, the required acreage for the total evaporative lagoons is 56 acres, which is slightly larger than the 53 acre French Lake.

C. Map – Schematic Layout

See the map titled Total Evaporative Lagoons in Appendix B.

D. Environmental Impacts

There are none at this time. However, an environmental impact study is recommended to appropriately determine the impacts of this preliminary design.

E. Land Requirement

The total evaporative lagoon will require 56 additional acres of completely flat land for proper treatment. This would involve the construction of dikes to retain the wastewater within the evaporation lagoon. The existing lagoons would need to remain active during construction of the total evaporation lagoons in order to provide wastewater treatment. This may prevent including the existing 6 acres of land as treatment land in the total evaporative lagoon system.

F. Construction Problems

Construction of the total evaporation lagoons requires an incredibly large area of flat land, which is difficult to find given the overall (56 acre) size. The best location is just south of French Lake and even this location cuts into a slight hill, which will require substantial earthwork. Even if the site were completely flat, the removal of earth required to construct the ponds will generate a sizable amount of cut material that will need to be hauled off site.

G. Cost Estimates

1. Construction

Construction costs for the total evaporative lagoons are estimated to be \$4,947,560. Please see Appendix F for a detailed breakdown of these estimated costs.

2. Non-Construction

Non-construction costs, including engineering design fees, legal fees, and construction management are estimated to be \$280,000. Please see Appendix F for a detailed breakdown of these estimated costs.

3. Annual Operations and Maintenance

Annual operation and maintenance costs are estimated to be \$35,000. This cost includes employee salaries, benefits, and regular maintenance to the system. Please see Appendix F for a detailed breakdown of these estimated costs.

H. Advantages / Disadvantages

The advantages of the total retention pond system lie in its low operation and maintenance costs. Because there are no mechanical devices involved in the system, the primary operation and maintenance issue lies in the effort to keep the distribution laterals clean and functioning. But these advantages are of little significance considering the disadvantages.

The obvious disadvantage is the need for 56 acres of flat land committed to wastewater evaporation. The total retention lagoon system also has the disadvantage of becoming nearly inoperable during the winter or other times when evaporation is not occurring. Additionally, the Village will need to develop a plan to remove and dispose of the solids that collect in the lagoons.

VI. SELECTION OF AN ALTERNATIVE

A. Present Worth (Life Cycle) Cost Analysis

The following cost analysis presents the total estimated capital cost required to design and construct the two alternatives considered in this preliminary engineering report. In addition, the estimated annual operation and maintenance costs have been tabulated for the two alternatives. A 20 year life cycle was considered for this analysis and total present worth of operation and maintenance costs over this period can be found in the following Table 3:

Table 3 – Cost Analysis

Project Alternative	Capital Cost	Annual O&M Cost	Present Worth of Annual O&M Costs Over 20yrs*	Present Worth Total (20year) Cost
Aerated Lagoons	\$1,265,800	\$63,000	\$1,732,000	\$2,997,800
Total Evaporative Lagoons	\$6,161,200	\$35,000	\$962,222	\$7,123,422

*Cost calculated using "Real" federal discount rate from Appendix C of OMB Circular A-94

From Table 3, the cost effective solution appears to be the construction of the aerated lagoons. Recommendations on how to proceed with this alternative can be found below.

VII. PROPOSED PROJECT – AERATED LAGOONS

A. PROJECT DESIGN

1. Collection System Layout

There are no additions or capacity increases to the collection system at this time. However, an addendum to this PER will be issued upon completion of the Sewer Cleaning and CCTV project. This project will develop a capitol improvements program for the Village.

2. Pumping Stations

There are no additional pump stations or station upgrades to be added at this time. However, an addendum to this PER will be issued upon completion of the Sewer Cleaning and CCTV project, which will describe the single pump station conditions and list make, model, age, and maintenance history.

3. Treatment

Before the new aeration lagoons are brought online, the state and the EPA must determine the classification of French Lake, and the Village must secure a completed NPDES permit from the EPA allowing surface water discharge into French Lake.

As described above, the existing treatment lagoons shall be modified in the following ways to make them compliant with State and EPA aeration lagoon standards:

Remove Sludge: Before construction begins on the lagoon improvements, the standing wastewater must be pumped out and sludge removed then disposed of using EPA-approved methods.

Following the sludge removal, the contractor should construct all necessary dividing walls, piping, valving, electrical lines, and equipment to create two parallel trains of complete-mix aeration, a partial mix area, a solids settling area, and a disinfection area.

B. TOTAL PROJECT COST ESTIMATE

Engineering, design, construction, and all other costs required to improve the treatment lagoons from their current status to meet State and EPA regulations have an estimated value of \$1,265,800. Annual operation costs are estimated to be \$63,000. Detailed breakdowns of these costs can be found in Appendix F.

C. ANNUAL OPERATING BUDGET

1. Income

The Village of Cimarron proposed sewer rate schedule for 2007 can be found in Appendix D and includes the increased water meter connection rates.

The yearly revenue generated in sewer operations for the 2007/2008 budget is \$43,103.

In accordance with the Village, there are only 6 buildable lots left within the sewer service area. At a rate of \$567 per new sewer connection, only a one-time \$3,402 and additional yearly revenue of \$133 could be expected if all of these available lots were developed.

2. Operations and Maintenance (O & M) Costs

The yearly expenditure of the Village for sewer operations for the 2007/2008 budget is \$38,445. This includes salary and benefits for the Village employee, as well as system maintenance.

Annual operation costs for the improved aeration lagoons are estimated to be \$63,000, which includes the same salary and benefits of the Village's current employees, regular equipment maintenance, disinfection, and electricity costs to operate the aerators.

3. Debt Repayments

The Village has two outstanding debts that were taken for utility infrastructure. The first loan was taken in 2004 at a loan amount of \$180,932 and will reach maturity in the year 2044. As of June 30, 2007, the total outstanding amount for this loan was \$136,790. The second loan was taken in 1985 at a loan amount of \$152,000 and will reach maturity in 2025. As of June 30, 2007, the total outstanding amount for this loan was \$117,000. Payment for each of loans comes out of the water operations budget and will not be considered in the sewer operation budget.

4. Reserves

The Village annually reserves 12% of the total anticipated expenditures to repay debt in the event that cash generated by operations is insufficient. The wastewater treatment plant has a short-lived asset reserve of \$10,000 for pumps, paint and small equipment.

5. Budget Summary

For the 2007/2008 fiscal year, the yearly revenue is \$43,103 (after sewer rate increases) with expenses of \$38,445 as well as \$4,613 for reserves. This provides the Village with a surplus of \$45 annually. Based on this financial information, a funding analysis is recommended for the capital improvements suggested in this report. For more details, please see Cimarron Budget FY 2007/2008 in Appendix D.

For the proposed aeration lagoons, the total expenses for the Village of Cimarron, including the proposed operation and maintenance costs, debt repayments, and the assets set aside for reserves equal \$63,000 per year. With an income of \$43,103, the Village is short \$19,897 without raising sewer

rates. Based on this financial information, a funding analysis is recommended for the maintenance of the improvements suggested in this report.

VIII. CONCLUSIONS AND RECOMMENDATIONS

A. Intermediate Projects

These projects should be completed in the short term before the aeration improvements to the existing lagoons begins.

1. Wastewater Characteristic Monitoring

One grab sample lab result of the existing lagoons' treated output revealed the wastewater was receiving effective treatment and meeting State and EPA requirements with the exception of fecal coliform.

Before starting construction on the improved aerated lagoons, the current lagoon influent flow volume as well as influent and effluent should be monitored once a month for a complete calendar year using EPA-approved lab techniques for the following characteristics:

- a. BOD₅
- b. CBOD
- c. TSS
- d. TKN
- e. pH
- f. Temperature
- g. Total Coliform
- h. Oil and Grease
- i. Phosphorous

Monitoring these wastewater characteristics will reveal how the existing lagoons are functioning and will help determine the level of aeration and disinfection required to bring the lagoons up to current State and EPA standards. Once the monitoring is complete, the alternatives should be reconsidered and reevaluated before final designs begin.

This intermediate project has an estimated cost of \$11,000 dollars.

2. Update Headworks/Replace Bar Screen

To prevent floating debris and other large solid objects from entering the wastewater lagoons, a new headworks system should be installed on the influent pipe just upstream of the Parshall Flume. The recommended device, an In-Channel Grinder, will grind all incoming objects to small shreds before they pass into the wastewater lagoons. These smaller shreds will be easier to break down in the lagoon digestion process and more efficiently assimilated into the sludge, which gets hauled off for disposal.

This intermediate project has an estimated cost of \$633,650 dollars.

3. Remove Sludge from Existing Lagoons

Since the lagoons have not had any sludge pumped out of them in 30 plus years, removal of the sludge needs to occur immediately. Excessive collection of sludge on the bottom of the lagoons may be reducing the active treatment volume in the lagoons and reducing the quality of the effluent.

This intermediate project has an estimated cost of \$470,000. Please see the quote from Liquid Waste Management in Appendix G.

B. Recommendation

Based on the information contained in this preliminary engineering report, the wastewater treatment facility should be upgraded with aeration equipment and disinfection as described in the Aerated Lagoons alternative described above.

Prior to the design of the aerated lagoons alternative, the Village should complete the intermediate projects listed in this PER.

The Village should also consult with the State of New Mexico and additional programs for funding opportunities and financial assistance.

REFERENCES

- 2007 Village of Cimarron Financial Information, provided by Village Administrator.*
- Design Manual – Municipal Wastewater Stabilization Ponds; United States Environmental Protection Agency, October 1983*
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- State of New Mexico National Pollutant Discharge Elimination System Application; Village of Cimarron, 2006.*
- Various interviews with Village of Cimarron operators and staff.*
- Village of Cimarron 40-Year Water Plan; Daniel B. Stephens & Associates, Inc. Albuquerque, New Mexico. April 1998*
- Water Management Plan for the Village for Cimarron, New Mexico; K. S. Berry Engineering. Raton, New Mexico. October 2003*
- whitehouse.gov. 1 October 2007. Appendix C OMB Circular No. A-94 Real Discount Rates. <http://www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html>*

List of Appendices

Appendix A	Pictures
Appendix B	Maps
Appendix C	Lab Results
Appendix D	Cimarron Finances
Appendix E	Correspondences
Appendix F	Cost Estimates
Appendix G	Product/Vendor Information
Appendix H	Current Operation Plan

APPENDIX A
Pictures

Appendix A Pictures



Figure 1 - Treatment Lagoons



Figure 2 - East Sand Filter Looking North Toward French Lake



Figure 3 - Access Road Surrounding Treatment Lagoons



Figure 4 – Waste Deposited on Concrete Freeboard



Figure 5 – Fence Between Lagoons and French Lake Looking North at French Lake



Figure 6 - Trash and Rags on Fence Between Lagoons and French Lake



Figure 7 – Solar Bee Unit



Figure 8 – Lagoon Influent Headworks



Figure 9 – Lagoon Effluent Head Gate



Figure 10 – Effluent Head Gate Detail



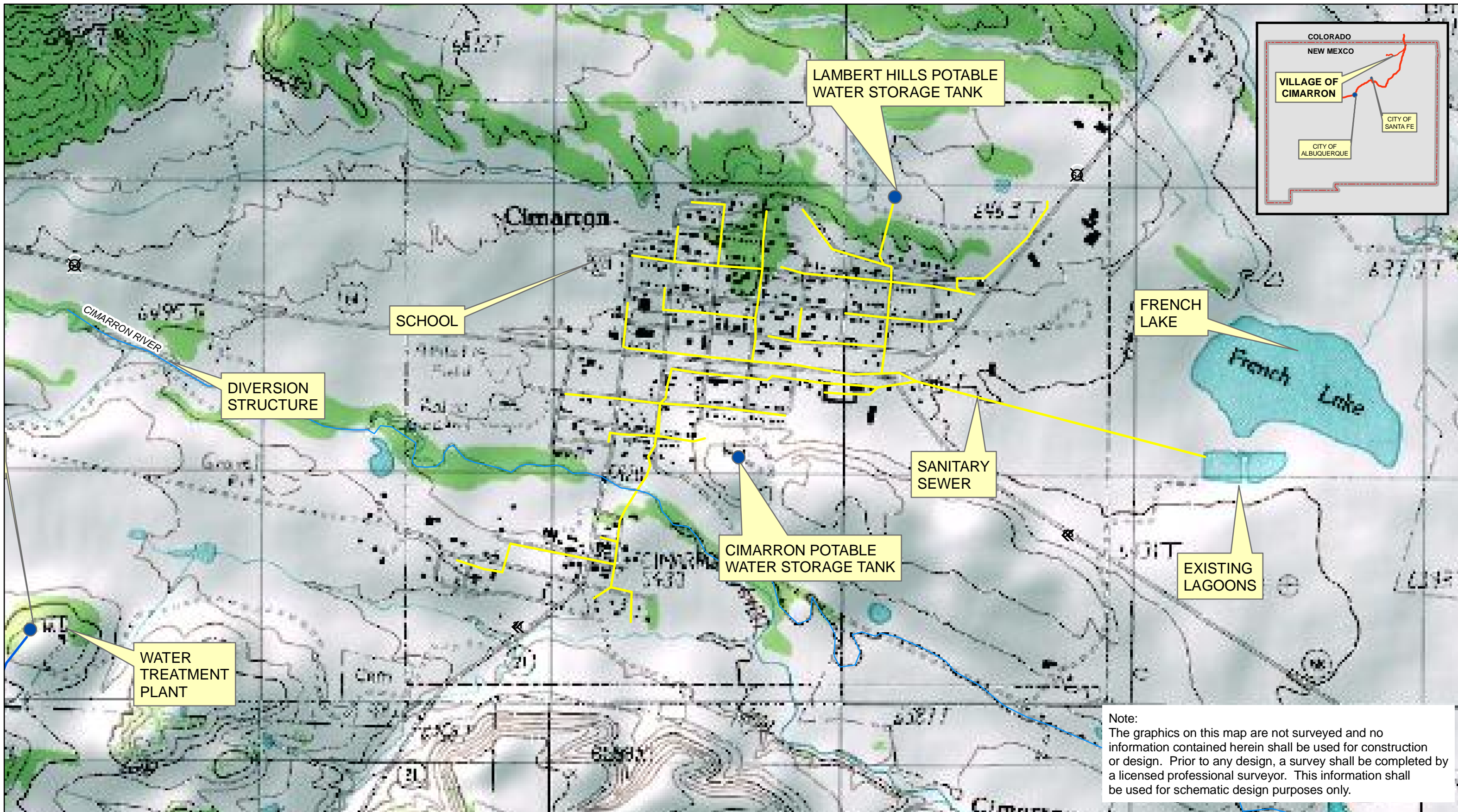
Figure 11 – Effluent Parshall Flume



Figure 12 – Detail of Insufficient Level Reading in Effluent Parshall Flume

APPENDIX B

Maps



DATE: 8/20/07

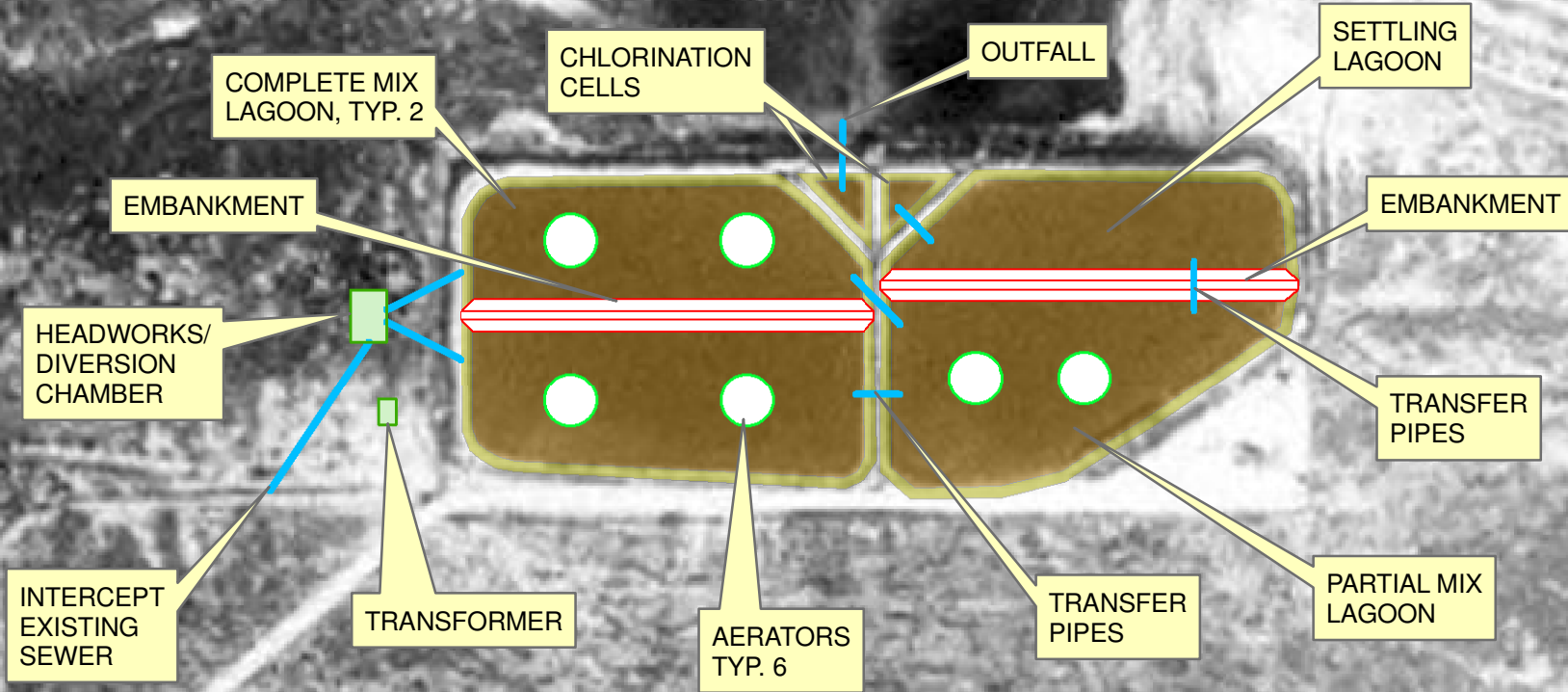
SANITARY SEWER VICINITY MAP

q

VILLAGE OF CIMARRON CIMARRON, NEW MEXICO			
SANITARY SEWER ENGINEERING REPORT			
SERVICE AREA MAP Sheet 2 of 2			
Nolte Associates, Inc.			
CHECKED: TRP	DATE: 8/16/07	ENGRS. FILE NO. XXX	SHEET NO. 2 of 2
CHECKED: TRP	SCALE: 1"=100'		

N:\CSB070003\Task 2\GIS\Maps\Master\Sanitary_Vicinity_Map.mxd

FRENCH LAKE

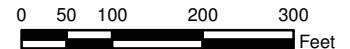


Note:
The graphics on this map are not surveyed and no information contained herein shall be used for construction or design. Prior to any design, a survey shall be completed by a licensed professional surveyor. This information shall be used for schematic design purposes only.

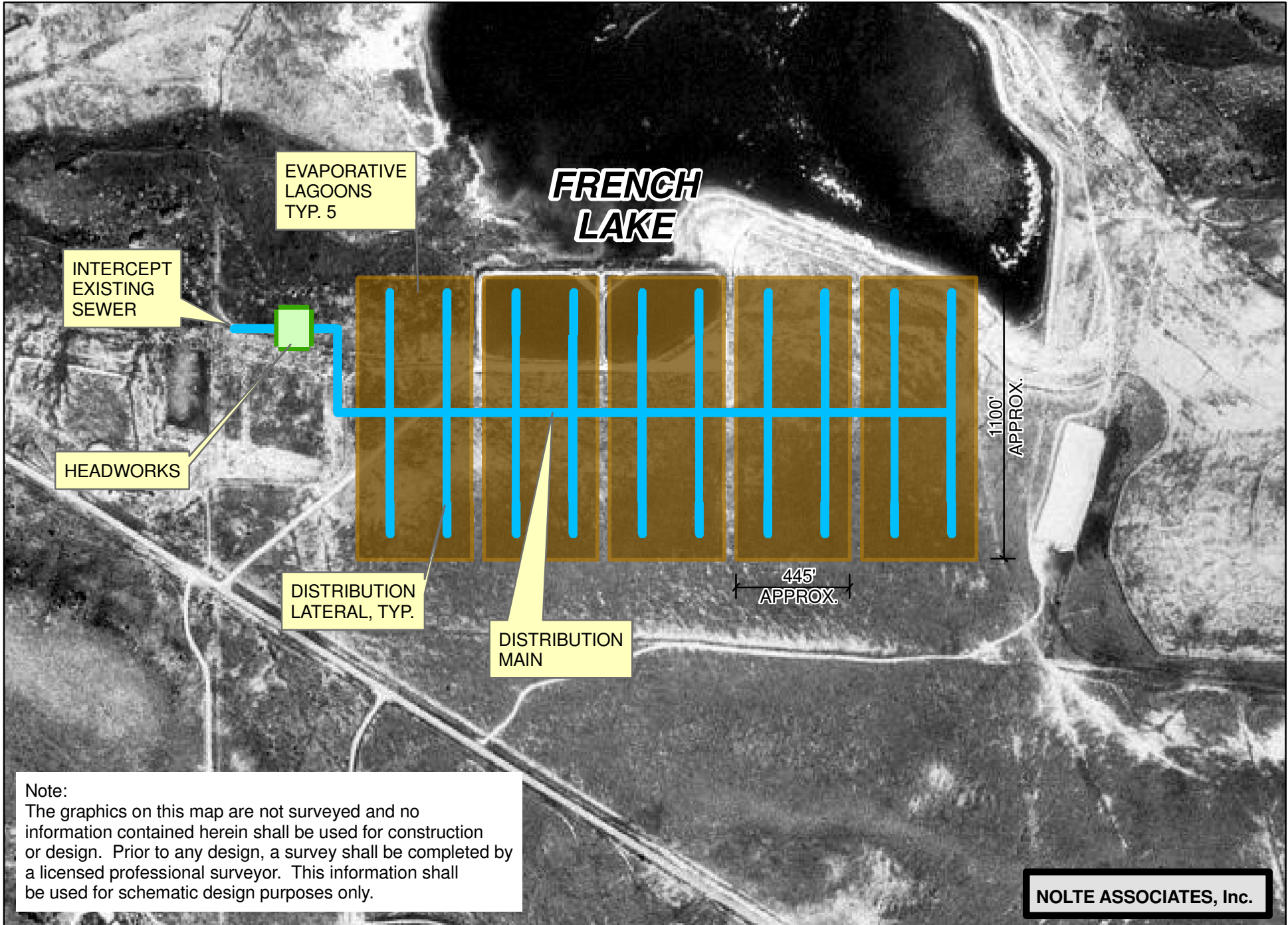
NOLTE ASSOCIATES, Inc.



COMPLETE AERATION LAGOONS Village of Cimarron, New Mexico



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EVAPORATIVE LAGOONS
TYP. 5

INTERCEPT EXISTING SEWER

HEADWORKS

DISTRIBUTION LATERAL, TYP.

DISTRIBUTION MAIN

445'
APPROX.

1100'
APPROX.

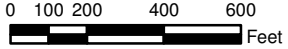
FRENCH LAKE

Note:
The graphics on this map are not surveyed and no information contained herein shall be used for construction or design. Prior to any design, a survey shall be completed by a licensed professional surveyor. This information shall be used for schematic design purposes only.

NOLTE ASSOCIATES, Inc.



**TOTAL EVAPORATIVE LAGOONS
Village of Cimarron, New Mexico**



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APPENDIX C

Lab Results

BACA ENTERPRISES

VILLAGE OF CIMARRON WASTEWATER SAMPLES

INFLUENT SAMPLES WERE GRABBED @ THE
INFLUENT PARSHALL FLUME @ 9:43A. PARSHALL
FLUME STAFF GAUGE WAS @ .25.

EFFLUENT SAMPLES WERE GRABBED FROM
THE NORTH LAGOON @ THE TOP LEVEL @ 9:53A.

INFLUENT

EFFLUENT

	INFLUENT	EFFLUENT
B.O.D.	138.0 mg/L	13.8 mg/L
T.S.S.	88.3 mg/L	19.7 mg/L
SETTLABLE SOLIDS	7.0 mL/L	0
FECAL COLIFORM	$\geq 160,000$ COLONIES / 100MLS	30,000 COLONIES / 100MLS
PH	7.67	8.54
NH ₃ -N	58.0 mg/L	13.0 mg/L
TEMPERATURE	21.2°C	19.3°C
D.O.	0.0	4.9 mg/L

BIOCHEMICAL OXYGEN DEMAND WORKSHEET

Sampler MICHAEL
 Name of Facility CIMARRON LAGOONS
 Date of Sampling 8-31-07
 Time of Sampling 9:43 + 9:53
 Exact Sampling Location INE PER FLUMIT NORTH LAGOON
 Type of Sample: Grab Composite Hour _____
 Type of Flow: Instantaneous Daily
 Sample Preservation ICED

Date of Analysis 8-31-07
 Date & Time of Arrival 8-31-07 @ 10:58
 Method Used: Standard Methods, 18th ed. Pages 5-7 through 5-7 Method # 5210E

Sample temperature at time of analysis should be warmed to 20° C before analysis. If stored over 2 hours must be refrigerated to 4° C.

**LAGOONS ARE NOT CHLORINATED
 NO SEEDING OR DECHLORINATION
 IS NECESSARY.**

SAMPLE PRETREATMENT

Sample pH 8.57 @ 20.7° C
 Sample pH adjusted to _____
 H₂SO₄ _____ NAOH (6.5-7.5)
 Seed Source _____
 Seed Collection: Date _____ Time _____
 UNSEEDED DILUTION WATER BLANKS

Cl₂ present _____ mg/l; DcCl₂ _____
 Date of sodium sulfite prep. _____
 Volume of sodium sulfite used/liter sample _____
 Sample rechecked for Cl₂ _____ mg/l

Bottle #	1	2	3
D.O. Initial	6.5	6.5	6.5
D.O. Final	6.5	6.5	6.5
Difference	0	0	0

INFLUENT

Bottle Number	12	13	14	15
ml Seed Used	1	2	3	5
D.O. Initial	6.5	6.5	6.5	6.4
D.O. Final	5.9	5.5	5.0	4.1
Difference	0.6	1.0	1.5	2.3
Average	1.0	1.0	1.0	3.0
AVG. INE BOD = 13.8 mg/l				

Note: Should be < 0.2 mg/l after 5 days of incubation at 20° C.

D.O. Meter calibration value 6.5 initial
 D.O. Meter calibration value 6.5 final

GLUCOSE-GLUTAMIC ACID STANDARD

Bottle Number	4	5
ml Standard	6	6
ml Seed Used	1	1
D.O. Initial	6.5	6.5
D.O. Final	2.8	2.8
Difference	3.7	3.7
Seed Correction		
Corrected Difference		
BOD mg/l	185	185

Note: GG should be 198 ± 30.5 mg/l

SAMPLE DATA

EFFLUENT

Bottle Number	6	7	8	9	10	11
ml Sample	5	10	20	20	30	50
ml Seed Used	-	-	-	-	-	-
D.O. Initial	6.5	6.5	6.5	6.5	6.4	6.4
D.O. Final	6.1	5.9	5.4	5.4	4.8	4.1
Difference	0.4	0.6	1.1	1.1	1.6	2.3
Seed Correction	-	-	-	-	-	-
Corrected Difference	-	-	-	-	-	-
BOD mg/l	2.4	1.8	1.6	1.6	1.6	1.38
Average BOD = 13.8 mg/l						

Analyst (preparer) MICHAEL
 Analyst (reading) _____

Date & Time of initial reading 8-31-07 @ 2:42
 Date & Time of final reading _____

- Dilutions that result in a residual D.O. of at least 1 mg/l and a D.O. uptake of a least 2 mg/l after 5 days of incubation produce the most reliable results.
- Before seed is used it should be allowed to settle for at least 1 hr. and no longer than 36 hours at 20° C before use.

TOTAL SUSPENDED SOLIDS WORKSHEET

SAMPLER MICHAEL DATE OF ANALYSIS B-31-07
 NAME OF FACILITY CIMARRON LAGOON TIME OF ARRIVAL B-31-07 @ 10:50
 DATE OF SAMPLING B-31-07 SAMPLE PRESERVATION ICED
 TIME OF SAMPLING 9:43 + 9:53 METHOD USED: STANDARD METHODS
 EXACT SAMP. LOC. LINE FRESH FLOW + NORTH LAGOON (EFF) 8TH ED PAGE 2-56
 TYPE OF SAMPLE: GRAB COMP. _____ HOUR _____ METHOD 2540 D
 TYPE OF FLOW: INSTANTANEOUS _____ DAILY _____
 DRYING OVEN TEMP → 104.2°C ANALYZED BY: MICHAEL
 DATE OF ANALYSIS: B-31-07

SAMPLE DATA NO TRACE OF SETTLEABLE SOLIDS IN EFFLUENT

EPFLUENT LOCATION	<u>NORTH LAGOON</u>				BLANKS	
DISH NUMBER	1	2	3	4		
SAMPLE VOLUME (ML)	20	30	30	50	1411	14012
DILUTIONS USED :					1.4110	1.4012
1 ST WT DRY FILTER + DISH GRAMS (TARE)	1.4091	1.4093	1.4099	1.3842	1.411	1.4012
2 ND WT DRY FILTER + DISH GRAMS (TARE)	1.4090	1.4093	1.4100	1.3842	1.411	1.4012
1 ST WT G OF DRY SAMPLE (TIME WEIGHT TAKEN)	1.4093	1.4099	1.4106	1.3854		
2 ND WT G OF DRY SAMPLE (TIME WEIGHT TAKEN)	1.4093	1.4099	1.4106	1.3854		
FINAL WT DRY FILTER + DISH GRAMS (TARE)	1.4090	1.4093	1.4100	1.3842		
FINAL WT G DRY SAMPLE (TIME WEIGHT TAKEN)	1.4093	1.4099	1.4106	1.3854		
TSS MG/L	15.0	20.0	20.0	24.0		
AVERAGE TSS					19.7 mg/L	

INFLUENT SETTLEABLE SOLIDS IN INF = 7.0mg/L

DISH NUMBER	1	2	3	4	
SAMPLE VOLUME (ML)	5	15	15	30	
DILUTIONS USED :					
1 ST WT DRY FILTER + DISH GRAMS (TARE)	1.3860	1.4156	1.3805	1.4129	
2 ND WT DRY FILTER + DISH GRAMS (TARE)	1.3861	1.4156	1.3804	1.4127	
1 ST WT G OF DRY SAMPLE (TIME WEIGHT TAKEN)	1.3869	1.4168	1.3818	1.4157	
2 ND WT G OF DRY SAMPLE (TIME WEIGHT TAKEN)	1.3865	1.4168	1.3818	1.4157	
FINAL WT DRY FILTER + DISH GRAMS (TARE)	1.3861	1.4156	1.3804	1.4127	
FINAL WT G DRY SAMPLE (TIME WEIGHT TAKEN)	1.3865	1.4168	1.3818	1.4157	
TSS MG/L	80.0	80.0	93.3	100.0	
AVERAGE TSS					86.3 mg/L

TSS, MG/L -

FINAL WT GRAMS SAMPLE - TARE WT GRAMS DISH X 1,000,000 / SAMPLE VOLUME, ML

NOTE: REFRIGERATE SAMPLE AT 4°C UP TO THE TIME OF ANALYSIS.

WASTEWATER LABORATORY

pH Worksheet

Name of Facility CIMARRON LAGOONS Method Used: U.S.E.P.A. MTD. 150.1

Date of Sampling 8-31-07

Exact Time of Sampling 9:43 + 9:53 Make, Model of pH Meter FISHER-ACCUMET 100

Exact Sampling Location EFF NORTH Sample Temperature 19.3 + 21.2 °C

LAGOON, INFLUENT PARSHALL FLUME Signature of Analyst Michael L. Pava

Type of Sample GRAB (grab)

Instantaneous Flow .25 INF. STAFF GAUGE

Signature of Sampler Michael L. Pava

pH Meter Calibration

Date of Calibration: 8-31-07 Time of Calibration: 11:07

pH meter adjusted to sample temperature 19.3 + 21.2 °C

First pH buffer used for standardization: 7.00 Meter Reading: 7.00 @ 23.8 °C

Date purchased: 3-6-07 Date opened: 8-29-07 Clarity: Expiration date: 11-08 (1 yr)

Second pH buffer used to check standardization: 10.00 Meter reading: 10.01 @ 23.8 °C

Date purchased: 3-6-07 Date opened: 8-22-07 Clarity: Expiration date: 12-08 (1 yr)

Third pH buffer used to check calibration: 4.00 Meter reading: 4.00 @ 24.1 °C
(data should be within .1 pH unit of last buffer)

Sample Data

	EFFLUENT	INFLUENT
Exact Time of Analysis	11:00	11:07
pH Reading	8.54 @ 19.3 °C	7.67 @ 21.2 °C

Comments _____

IRATON WASTEWATER PLANT

Collection Data:

Sample: CIMARRON EFFLUENT Fecal Coliform MPN Method Bench Sheet
 Date: 8-31-07 Ref. Std. Meth. 18th Ed. Section 9, Pages 52-53
 Time: 9:53 METHOD - 9221E
 Flow: _____ Using A-1 Medium Broth
 Collected By: MICHAEL EFF. at Parshall Flume
 Grab Sample

Analyzed By: MICHAEL Drybath Temp. # 2 Waterbath Temp. 44.5°C
 Date Test Started: 8-31-07 Time: 11:20 35.1°C
 Date Test Ended: 9-1-07 Time: 10:22 44.5°C

Row	Tube Dilution # Factor / Volume Used	3 hrs. Incubation At 35°C. ± 0.5°C	Fecal 21 ± 2 hrs. @ 44.5°C ± 0.2°C	Positive Tubes # Code
A.	1 <u>1</u>		+	<u>5</u>
	2		+	
	3		+	
	4 3 hrs. incubation Started <u>11:53</u>		+	
	5 Ended <u>2:34</u>		-	
B.	1 <u>.1</u>		+	<u>5</u>
	2		+	
	3		+	
	4		+	
	5		+	
C.	1 <u>.01</u>		+	<u>5</u>
	2		+	
	3		+	
	4		+	
	5		+	
D.	1 <u>.001</u>		-	<u>1</u>
	2		+	
	3		-	
	4		-	
	5		-	
E.	1 _____		_____	_____
	2		_____	
	3		_____	
	4		_____	
	5		_____	

Confirm Code: 5-5-1
 MPN Index Fm; Table: 300/100mls

$$300 \times \frac{10}{.1} = 30,000 / 100 \text{ mls}$$

COLIFORMS

Sample Container Lot #: 00721a
 Exp: _____
 P.B.D.W. Lot #: 0704E-A
 Exp: 1-10-08
 A-1 Medium Lot #: A7134-
 Exp: 5-14-08

RATON WASTEWATER PLANT

Collection Data:

Sample: CIMARRON INFLUENT Fecal Coliform MPN Method Bench Sheet
 Date: 8-31-07 Ref. Std. Meth. 18th Ed. Section 9, Pages 52-53
 Time: 9:43 METHOD - 9221E
 Flow: 0.25 (STAFF BAUSE) Using A-1 Medium Broth
 Collected By: MICHAEL EFF. at Parshall Flume
 Grab Sample

Analyzed By: MICHAEL Drybath Temp. 35.0 Waterbath Temp. 44.5°C
 Date Test Started: 8-31-07 Time: 11:02
 Date Test Ended: 9-1-07 Time: 10:22

Row	Tube Dilution # Factor / Volume Used	3 hrs. Incubation At 35°C. ± 0.5°C	Fecal 21 ± 2 hrs. @ 44.5°C ± 0.2°C	Positive Tubes # Code
A.	1 <u>1</u>		+	<u>5</u>
	2		+	
	3		+	
	4 3 hrs. incubation Started <u>11:13</u>		+	
	5 Ended <u>2:14</u>		+	
B.	1 <u>1</u>		+	<u>5</u>
	2		+	
	3		+	
	4		+	
	5		+	
C.	1 <u>.01</u>		+	<u>5</u>
	2		+	
	3		+	
	4		+	
	5		+	
D.	1 <u>.001</u>		+	<u>5</u>
	2		+	
	3		+	
	4		+	
	5		+	
E.	1			
	2			
	3			
	4			
	5			

Confirm Code: 5-5-5
 MPN Index Frm. Table: 2 11000/100 ml

$$\geq 1600 \times 10 = \geq 160,000 / 100 \text{ ml}$$
 COLORES

Sample Container Lot #: 00726
 Exp: _____
 P.B.D.W. Lot #: 07045A
 Exp: 1-10-08
 A-1 Medium Lot #: A713A
 Exp: 5-14-08

8-31-07

WINKLER - AZIDE MODIFICATION

BURET READING

BURET READING

EFFLUENT

INFLUENT

0.0 } 4.9 mg/l

4.9

NO TRACE OF

D.O. IN

4.9 } 4.9 mg/l

9.8

INFLUENT ANALYSIS

EFFLUENT D.O. @ 12:04

4.9 mg/l

INFLUENT D.O. @

12:06 0.0 mg/l

NITRATE NITROGEN (NH₃-N)

HACH METHOD

EFFLUENT

INFLUENT

1.0 mg/l

0.0 mg/l

AMMONIA NITROGEN

EFFLUENT

INFLUENT

13.0 mg/l

58.0 mg/l

HACH METHOD ARE FOR IN-HOUSE
ANALYSIS, NOT FOR REPORTING
PURPOSES.

APPENDIX D

Cimarron Finances

*All financial data included in this report was obtained directly from the Village of Cimarron and has not been modified by Nolte Associates, Inc.

RESIDENTIAL							
	Step 1 Base Service Charge 0-2,000	Step 2 2,001- 5,000 per 1,000	Step 3 5,001- 8,000 per 1,000	Step 4 8,001- 10,000 per 1,000	Step 5 10,001- 12,000 per 1,000	Step 6 over 12,001 per 1,000	
Water							**Once per Year conservation incentive with proof of purchase (10% of purchase value up to \$50.00)
CURRENT Residential / Commercial under 120,000 gallons per year	14.39	3.28	3.28	3.28	3.88	3.88	Last Updated 2006 \$14.39 base 0-2,000 gallons plus 3.28 per 1,000 gallons. Prior Update 1995 13.08 base plus \$2.98 per 1,000 gallons
PURPOSED							
15% increase for all users with conservation step usage incentive	16.55	3.77	4.34	4.99	5.74	6.60	Break even with \$12,305.26 for reserve
Sewer							Last Updated 2006 5.00 base plus \$1.00 per 1,000
CURRENT Residential / Commercial under 120,000 gallons per year	5.00	1.00	1.00	1.00	1.00	1.00	Prior Updated 1995 3.28 base to 2,000 plus \$.85 per 1,000 Prior Updated 1985 0-6,000 \$6.50 plus \$.50 per 1,000 gallons over 6,000
PURPOSED							
15% increase for all users with conservation step usage incentive	5.75	1.15	1.32	1.52	1.75	2.01	
LARGE COMMERCIAL							
Water	Step 1 Base Service Charge 0-2,000	Step 2 2,001- 5,000 per 1,000	Step 3 5,001- 8,000 per 1,000	Step 4 8,001- 10,000 per 1,000	Step 5 10,001- 12,000 per 1,000	Step 6 over 12,001 per 1,000	**Once per Year conservation incentive with proof of purchase (10% of purchase value up to \$50.00)
CURRENT Commercial over 120,000 gallons per year	61.52	3.88	3.88	3.88	3.88	3.88	
PURPOSED							
15% increase for all users with residential conservation step usage incentive	70.75	4.46	4.46	4.46	4.46	4.46	
Sewer							
CURRENT Commercial over 120,000 gallons per year	12.79	1.00	1.00	1.00	1.00	1.00	
PURPOSED							
15% increase for all users with residential conservation step usage incentive	14.71	1.52	1.52	1.52	1.52	1.52	
SMALL COMMERCIAL							
Water	Step 1 Base Service Charge 0-2,000	Step 2 2,001- 5,000 per 1,000	Step 3 5,001- 8,000 per 1,000	Step 4 8,001- 10,000 per 1,000	Step 5 10,001- 12,000 per 1,000	Step 6 over 12,001 per 1,000	**Once per Year conservation incentive with proof of purchase (10% of purchase value up to \$50.00)
PURPOSED							
15% increase for all users with residential conservation step usage incentive	16.55	4.46	4.46	4.46	4.46	4.46	
Sewer							
PURPOSED							
15% increase for all users with residential conservation step usage incentive	5.75	1.52	1.52	1.52	1.52	1.52	
Solid Waste	Purposed Fee						Last Updated 2006 13.50 to 16.50 With No Transfer Station Fees
Residential & Small Home Based Business & Shares with multiple users	18.98						Prior Updated 2003 11.30 to 13.50
Extra Small Business = Business Structure and shares with five (5) plus users under 120,000 per year	28.98						Prior Updated 1993 6.00 to 11.30
Small Business = Business Structure and shares with up to four (4) other users under 120,000 per year	39.48						
Medium Business = Business Structure and shares with up to 2 other users under 120,000 per year	59.48						
Commercial = charged per dumpster per month over 120,000 per year	120.48						

CIMARRON
BUDGET FY 07/08
Sewer Operations

Fiscal Year:
 Entity Code: 09401
 Fund Code: 2100

ACCT	REVENUES	2003/2004	2004/2005	2005/2006	2006/2007	2006/2007 ACTUAL THROUGH APRIL	2007/2008 COUNCIL APPROVAL	COMMENTS
CODE		ACTUAL	ACTUAL	ACTUAL	BUDGET			
34230	Sewer Services	28,755.32	41,395.79	31,343.40	7,266.95	22,213.66	41,987.74	
34240	Sewer Connections	1,061.00	0.00	1,252.55	2,000.00	0.00	1,000.00	
34990	Other Charges	186.00	0.00	0.00	150.00	0.00	0.00	
	Subtotal Acct 34's	30,002.32	41,395.79	32,595.95	9,416.95	22,213.66	42,987.74	
36030	Interest	53.00	97.49	175.33	100.00	96.43	115.72	
36060	Reimbursements	0.00	0.00	0.00	100.00	154.24	0.00	
	Subtotal Acct 36's	53.00	97.49	175.33	200.00	250.67	115.72	
51000	Transfer In (SAP)	18,800.00	0.00	0.00	0.00	0.00	0.00	
52000	Transfer Out/(SAP)	(22,336.00)	0.00	(884.00)	0.00	0.00	0.00	
	Transfer Out/RUS	(5,300.00)	0.00	0.00	0.00	0.00	0.00	
	Total Transfer Out	(27,636.00)	0.00	0.00	0.00	0.00	0.00	
	GRAND TOTAL REVENUES	76,491.32	41,493.28	32,771.28	9,616.95	22,464.33	43,103.46	
	Beg. Bal. 06-30-06 =\$							
ACCT	Description	2003/2004	2004/2005	2005/2006	2006/2007	2006/2007 ACTUAL THROUGH APRIL	2007/2008 COUNCIL APPROVAL	COMMENTS
CODE		ACTUAL	ACTUAL	ACTUAL	BUDGET			
41020	Full time Positions	23,253.00	19,474.68	18,758.20	21,704.00	13,945.94	18,200.00	Jessica 8.75 will be reviewed again June 21, 2008 for a 5% raise
	Subtotal Acct 41's	23,253.00	19,474.68	18,758.20	21,704.00	13,945.94	18,200.00	
42010	F.I.C.A. Regular	1,070.00	903.00	1,072.29	1,346.00	353.39	1,128.00	
42020	F.I.C.A. Medicare	250.00	211.00	250.77	315.00	82.65	264.00	
42030	Retirement Contributions	1,579.00	1,332.00	1,591.28	1,820.00	461.16	1,756.00	
42050	Health Care	3,063.00	3,920.00	4,160.16	4,362.00	1,212.30	4,798.20	
42070	Unemployment Ins	35.00	29.00	15.56	44.00	5.13	44.00	
42080	Workers' Comp	8.00	9.00	9.20	12.00	2.30	12.00	
42090	Direct Deposit Fees	0.00	0.00	3.00	0.00	10.50	39.00	
	Subtotal Acct 42's	6,005.00	6,404.00	7,102.26	7,899.00	2,127.43	8,041.20	
43030	Transportation (oil, gas)	0.00	0.00	0.00	0.00	264.93	250.00	
	Subtotal Acct 43's	0.00	0.00	0.00	0.00	264.93	250.00	
44040	Maintenance	1,431.00	726.62	351.02	1,000.00	2,369.42	1,000.00	
44900	Other Maintenance	806.00	0.00	0.00	0.00	0.00	0.00	
	Subtotal Acct 44's	2,237.00	726.62	351.02	1,000.00	2,369.42	1,000.00	
45010	Audit Contract	0.00	0.00	0.00	600.00	0.00	2,000.00	4 years audit
45900	Other Contractual Services	2,340.00	45.60	1,295.52	2,000.00	926.41	1,500.00	Water sample testing
	Subtotal Acct 45's	2,340.00	45.60	1,295.52	2,600.00	926.41	3,500.00	
46010	Supplies	2,049.00	2,066.08	2,722.54	2,500.00	2,827.08	2,055.00	
46900	Other Supplies	0.00	0.00	10.66	0.00	0.00	0.00	
	Subtotal Acct 46's	2,049.00	2,066.08	2,733.20	2,500.00	2,827.08	2,055.00	
48050	Lease Purchase	4,906.00	0.00	0.00	2,000.00	0.00	0.00	
	Subtotal Acct. 48's	4,906.00	0.00	0.00	2,000.00	0.00	0.00	
47060	Insurance (non-employee)	11,909.00	500.00	0.00	740.00	0.00	0.00	
47070	Postage	600.00	217.32	311.72	600.00	345.42	500.00	
47120	Equipment Rental	0.00	0.00	161.72	0.00	161.62	0.00	
47160	Utilities		0.00	0.00	0.00	104.47	0.00	
	Subtotal Acct 47's	12,509.00	717.32	473.44	1,340.00	611.51	500.00	
48020	Equipment Repairs	0.00	0.00	0.00	0.00	1,909.59	750.00	
48900	Capital Outlay-Wells Fargo/Sewer Vac	2,240.00	2,067.97	0.00	1,825.50	1,918.04	2,000.00	
48600	Gross Receipts Tx on waste water	2,000.00	1,032.03	1,308.65	2,500.00	764.21	2,149.39	
	Subtotal Acct. 49's	4,240.00	3,100.00	1,308.65	4,325.50	4,591.84	4,899.39	
	GRAND TOTAL 503	57,539.00	32,534.30	32,022.29	43,368.50	27,664.56	38,445.59	
	12% Encumbrance	6,904.68	3,904.12	3,842.67	5,204.22	3,319.75	4,613.47	
	ACCOUNT BALANCE	12,047.64	5,054.86	-3,093.68	-38,955.77	-8,519.98	44.40	

New Mexico Department of Finance and Administration
Local Government Division
Budget Request Forms

INSTRUCTIONS - ENTERPRISE FUNDS

Column (C): Line Item and Department Codes correlate to LGD periodic financial reports.
 Column (D): Enter 6-30-05 year-end revenues & expenditures.
 Column (E): Enter 6-30-06 year-end revenues & expenditures.
 Column (F): Enter fiscal year 2007 approved operating budget revenues & expenditures including budget resolutions/adjustments.
 Column (G): Formula driven.
 Column (H): Enter fiscal year 2008 budget request.
 Column (I): Formula driven.

County/ Municipality:
VILLAGE OF CIMARRON

FORM EP- 1 / EP-2
 ENTERPRISE & UTILITY REVENUES/TRANSFERS/EXPENDITURES
 (ROUNDED TO NEAREST DOLLAR)

Entity Code:
 Fund Number: 500
 Fiscal Year: 2008

Sewer, Solid Waste & Water (TOTAL OF ALL UTILITIES)

(A) UTILITIES	(B) ACCT. CODE	* (C) LINE ITEM & DEPT. CODES	(D) 6-30-05 FISCAL YEAR ACTUAL	(E) 6-30-06 FISCAL YEAR ACTUAL	(F) F.Y 2007 APPROVED OPER. BUDGET INCL. ADJUST.	(G) % INCREASE (DECREASE) ((F - E) ÷ E)	(H) F.Y. 2008 BUDGET REQUEST	(I) % INCREASE (DECREASE) ((H - F) ÷ F)
Revenues:								
a) Utility - Services	34230	342302	300881	296517	318290	7%	329448	4%
b) Utility Services - Connections	34240	342302	0	7005	8000	14%	4206	-47%
c) Utility Services - Re-connections	34250	342302	0	0	150	#DIV/0!	0	-100%
d) Other Charges for Services	34990	342302	0	0	0	#DIV/0!	0	#DIV/0!
e) Investment Income	36030	342302	334	175	100	-43%	116	16%
f) Penalties	36050	342302	0	0	0	#DIV/0!	0	#DIV/0!
g) Sale - Other	36090	342302	0	1564	5100	226%	1039	-80%
Total Revenues (Carry to Recap)			301,215	305,261	331,640	9%	334,809	1%
Transfers in <out>:								
a) In	51000		0	0	0	#DIV/0!	0	#DIV/0!
b) Out	52000		0	0	0	#DIV/0!	0	#DIV/0!
Total Transfers (Carry to Recap)			301,215	304,377	312,893	3%	334,809	7%
Expenditures: MUNICIPALITY								
a) Salary & Wages	41XXX	21402	85850	71983	98526	37%	82715	-16%
b) Employee Benefits	42XXX	21402	32417	27266	34975	28%	33447	-4%
c) Travel	43XXX	21402	4647	4242	7700	82%	5100	-34%
d) Purchased Property Services	44XXX	21402	2675	7647	4500	-41%	4750	6%
e) Contractual Services	45XXX	21402	95347	92881	101640	9%	98000	-4%
f) Supplies	46XXX	21402	11447	14157	14350	1%	16755	17%
g) Other Operating Costs	47XXX	21402	14988	28848	20540	-29%	28699	40%
h) Capital Purchases	48XXX	21402	24585	17107	17526	2%	25259	44%
Expenditures: COUNTY								
a) Salary & Wages	41XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
b) Employee Benefits	42XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
c) Travel	43XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
d) Purchased Property Services	44XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
e) Contractual Services	45XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
f) Supplies	46XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
g) Other Operating Costs	47XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
h) Capital Purchases	48XXX	21401	0	0	0	#DIV/0!	0	#DIV/0!
Total Expenditures (Carry to Recap)			271,955	264,131	299,757	13%	294,726	-2%

APPENDIX E
Correspondences

Trinity, Mike P.

From: Pedro, Steven, NMENV [Steven.Pedro@state.nm.us]
Sent: Wednesday, July 25, 2007 3:55 PM
To: Repp, Thomas R.
Subject: Village of Cimarron DP Renewal

Tom,

Good afternoon. After talking with our Domestic Waste Team Leader about the renewal of the Village of Cimarron's Discharge Permit, we've decided to renew the permit as a renewal from the expired Discharge Permit as they are currently operating. As I discussed with you of bringing the Village into re-use for renewal, we'll hold off on that until a determination is made by EPA for an NPDES permit. As such, a meeting with the mayor and representatives with Vermejo is not needed at this time. If and when the time should come that EPA/State determine that French Lake is classified as "waters of the US/state" after issuance of an effective Discharge Permit, NMED will proceed with modifying the permit under the NPDES requirements. As you know if in the case EPA does make an NPDES determination, it wouldn't matter to Vermejo of whether they utilize the water for irrigation due to that fact that the NPDES monitoring requirements would be very strict. Until then, we'll renew the permit and the Village will operate as normal as it currently does.

If you have any questions, give me a call. Thanks.

Steven Pedro
Environmental Scientist & Specialist
Ground Water Quality Bureau
New Mexico Environment Department
PO Box 26110
Santa Fe, NM 87507
(505) 827-2957 phone
(505) 827-2965 fax

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HILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2900
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY
DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

September 5, 2006

Linda Pavletich, Mayor
Village of Cimarron Wastewater Treatment Plant
PO Box 654
Cimarron, NM 87114

**RE: Administrative Completeness Determination and Applicant's Public Notice Requirements,
DP-1252, Village of Cimarron Wastewater Treatment Plant**

Dear Discharge Permit Applicant:

The New Mexico Environment Department (NMED) received a Ground Water Discharge Permit Application for the above referenced facility on August 17, 2006. Pursuant to Section 20.6.2.3108 NMAC of the New Mexico Water Quality Control Commission Regulations (20.6.2 NMAC), NMED determined on August 25, 2006 that your application is administratively complete.

Within 30 days of the date your application was deemed administratively complete, you must provide public notice as required by Section 20.6.2.3108 NMAC. The public notice requirements changed as of May 31, 2006. The instructions and materials needed to complete the new requirements are enclosed.

A technical reviewer will contact you within the next few months if additional information is needed to process your application. If you have a deadline of concern in the interim or any questions, please call the Ground Water Quality Bureau at (505) 827-2900.

Sincerely,

Naomi Davidson

for William C. Olson, Chief
Ground Water Quality Bureau

enc: Instructions for Completing Public Notice Requirements
Public Notice Flyer
Text for Newspaper Display Ad

INSTRUCTIONS FOR COMPLETING PUBLIC NOTICE REQUIREMENTSDischarge Permit Renewal DP- 1252

Within 30 days of the date NMED deemed your Discharge Permit application administratively complete, you must provide public notice as follows:

1. Mail a public notice flyer to the owner of the discharge site.

A copy of the enclosed public notice flyer must be sent via certified mail, return receipt requested, to the owner(s) of the discharge site(s), if the applicant is not the owner. The list of owners' names and addresses and the certified mail receipts must be submitted to NMED.

2. Place a display ad in the newspaper.

A display ad 2 x 3 inches in size must be published for one day in a newspaper of general circulation in the location of the proposed discharge. The ad may **not** be placed in the classified or legal section. The text for the ad is enclosed. NMED approves publishing the ad in the following newspaper:

The Raton Range

PROOF OF NOTICE. Within 15 days of completing the above requirements, the applicant must submit the following items as proof of notice to NMED:

- ✓ List of names and addresses of owners of discharge sites.
- ✓ Certified mail receipts for mailing to discharge site owner(s), if required.
- ✓ Copy of newspaper ad.

Send to NMED Ground Water Quality Bureau, PO Box 26110, Santa Fe, NM 87502.

Reviewer's Initials and Date SR

Public Notice Synopsis, DP-1252
(for sign and newspaper display ad)

*Newspaper display ad must be at least 3 inches by 4 inches in size
and must be published for at least one day
in a section other than the classifieds or legals.*

PUBLIC NOTICE
NOTICIA PUBLICA

Discharge Permit Application / Aplicación para Permiso para Descargar:

For up to 175,000 gallons per day of domestic wastewater to a treatment and disposal system / Hasta 175,000 de galones por día de aguas residuales domésticas a un sistema de tratamiento y disposición

Applicant & Discharge Location / Solicitante & Sitio de Descarga:

Village of Cimarron Wastewater Treatment Plant, 356B E. 9th St, Cimarron

For More Information / Para Más Información (DP-1252):

Ground Water Quality Bureau / Sección de Agua Subterránea
NM Environment Department / Departamento del Medio Ambiente

(505) 827-2900

www.nmenv.state.nm.us (public notices)

PUBLIC NOTICE

Discharge Permit Application

Village of Cimarron Wastewater Treatment Plant, DP-1252

DP-1252, Village of Cimarron Wastewater Treatment Plant, Linda Pavletich, Mayor, proposes to renew the Discharge Permit for the discharge of up to 175,000 gallons per day of domestic wastewater from a municipality to a treatment and disposal system. Potential contaminants from this type of discharge include nitrogen compounds. The facility is located at 356B E 9th Street, Cimarron, in Section 11, T26N, R19E, Colfax County. Ground water most likely to be affected is at a depth of approximately 18 feet and has a total dissolved solids concentration of approximately 1,370 milligrams per liter.

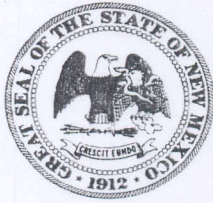
Information in this public notice was provided by the applicant and will be verified by the New Mexico Environment Department during the permit application review process. NMED will accept comments and statements of interest regarding the application and will create a facility specific mailing list for persons who wish to receive future notices.

You may send comments or statements of interest to:

Steven Pedro, DP-1252
Ground Water Quality Bureau
PO Box 26110
Santa Fe, NM 87502.

For additional information, please call:
505-827-2900

Applicant
Linda Pavletich, Mayor
PO Box 654
Cimarron, NM 87114



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2918
Fax (505) 827-2965



RON CURRY
SECRETARY
DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 19, 2006

Elias Gonzales, Mayor
Cimarron (Village of) - WWTP
PO Box 654
Cimarron, NM 87714

RE: Discharge Permit Renewal Reminder, DP-1252, Cimarron (Village of) - WWTP

Dear Mayor. Gonzales:

On August 31, 2001, the NM Environment Department (NMED) approved DP-1252. According to our records, the discharge permit will expire on August 31, 2006.

An application for discharge permit renewal must be submitted to the NMED Ground Water Quality Bureau pursuant to the New Mexico Water Quality Control Commission (WQCC) Regulations 20.6.2.3106.F and 20.6.2.3109.H NMAC. The application for discharge permit renewal must include complete and updated operational, monitoring, contingency and closure plans, and any information necessary to ensure that the discharge will not result in a violation of WQCC ground and/or surface water quality standards. Your renewal application may be made by submitting a completed New Mexico Environment Department Ground Water Discharge Permit Application (copy enclosed). Previously submitted materials may be included by reference provided they are current and readily available to the Ground Water Quality Bureau. Include in the application a detailed description of any changes you are planning to your operation which will affect the amount, quality or location of your discharge.

All requests for renewal must be accompanied by a filing fee of \$100. An additional fee will be assessed prior to permit issuance to cover the estimated cost to the NMED for investigation and issuance of the permit. The fee amounts for investigation and issuance are listed in Section 20.6.2.3114 NMAC.

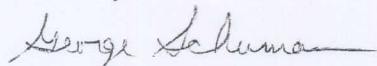
Elias Gonzales, DP-1252
January 19, 2006
page 2

Effective September 15, 2002, all applicants for new, modified, or renewed discharge permits must complete the public notice requirements of Section 20.6.2.3108.A and B NMAC. A summary sheet of these public notice requirements is attached.

If you are no longer discharging, please notify this office so that we may correct our records.

We look forward to your response. Processing of discharge permit renewals requires a minimum of 180 days. Timely action on your part can avoid a lapse in your permit coverage, which would be a violation of the WQCC Regulations. The person whom you may contact is Steven Pedro at 827-2900, if you have any questions.

Sincerely,



George Schuman
Program Manager
Ground Water Pollution Prevention Section

GS:ds

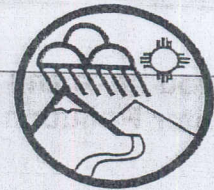
Encl: Discharge Plan Application
Summary of Public Notice Requirements
Frequently Asked Questions – Public Notice

District – II Cecilia Williams, NMED District II Manager



State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110



BILL RICHARDSON
GOVERNOR

Telephone (505) 827-2900

Fax (505) 827-2965

www.nmenv.state.nm.us

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

GROUND WATER DISCHARGE PERMIT APPLICATION

Enclosed is a Ground Water Discharge Permit Application Form (Form) and checklist. Section 20.6.2.3104 NMAC of the NM Water Quality Control Commission Regulations (20.6.2 NMAC) requires that any person proposing to discharge effluent or leachate so that it may move directly or indirectly into ground water must have an approved discharge permit, unless a specific exemption is provided for in the Regulations. The enclosed Form is a general guideline for use by applicants to ensure that an application is complete and provides all of the information required by sections 20.6.2.3106, 20.6.2.3107, 20.6.2.3108, and 20.6.2.3109 NMAC.

Mail **three complete copies** of your application with a **\$100 filing fee** check made payable to the New Mexico Environment Department (NMED) at the address below:

George Schuman, Program Manager
Ground Water Pollution Prevention Section
NM Environment Department
P. O. Box 26110
Santa Fe, NM 87502

Pursuant to Regulation 20.6.2.3108 NMAC, NMED will, within thirty (30) days of deeming the application administratively complete, publish a public notice and allow 30 days for public comment before taking final action on a discharge permit. A public hearing will be held if NMED determines that there is significant public interest. It takes approximately 180 days to process a complete application and issue a discharge permit if no public hearing is held.

All applications must be accompanied by a filing fee of \$100. **An additional fee will be assessed prior to permit issuance** to cover the estimated cost to the NMED for investigation, and, issuance of the permit. **Permit fees are listed in the Regulation 20.6.2.3114 NMAC.**

If you have any questions about this discharge permit application, call the Ground Water Pollution Prevention Section at 505-827-2900

COMPLETION CHECKLIST

<input type="checkbox"/>	<p>All portions of the Ground Water Discharge Permit Application Form have been addressed. (The application will not be considered complete if there are omissions, which will delay publication of the public notice and issuance of the permit.)</p>
<input checked="" type="checkbox"/>	<p>Submitter has included operational, monitoring, contingency, and closure plans that are appropriate for the proposed treatment and disposal system, and meet the site-specific conditions for the proposed facility.</p>
<input checked="" type="checkbox"/>	<p>Plans and specifications for the entire effluent or leachate conveyance, collection, treatment, distribution, and disposal system have been included as required by Regulation 20.6.2.1202 NMAC. For septic tank/leachfield systems, designs should be consistent with NMED's guidelines for Plans and Specifications for Discharge Permit Applications Using Septic Tank/Leachfields.</p>
<input type="checkbox"/>	<p>The application has been signed and dated by the responsible party, generally the owner or lessee.</p>
<input type="checkbox"/>	<p>If your facility site includes an archeological site on the State Register of Cultural Properties or National Register of Historic Places, the State Historic Preservation Office has the authority to require an archeological or historical study prior to NMED taking final action on your discharge permit.</p>
<input type="checkbox"/>	<p>Four maps have been included: 1) area United States Geological Survey (USGS) topographic map that includes the location of the facility and all of the information required in the application, item 7.b, 2) local road map clearly defining the location of the facility and the route to get to the facility, 3) detailed site map that includes all discharge locations (lagoons, leachfields, land application areas, outfalls...), all water supply and monitoring wells, all water courses on the property and all buildings and 4) United States Department of Agriculture (USDA) soils map.</p>
<input type="checkbox"/>	<p>Three copies of all required information have been enclosed.</p>
<input type="checkbox"/>	<p>A filing fee check in the amount of \$100, has been enclosed, made payable to the NM Environment Department at the address on page 1.</p>
<input type="checkbox"/>	<p>The SUMMARY OF APPLICANT'S PUBLIC NOTICE REQUIREMENTS has been reviewed and the option for Public Notice Has been selected on the application page 3.</p>

ADMINISTRATIVE COMPLETENESS

To be deemed administratively complete for publication of a public notice, the following information must be provided. [20.6.2.3106, 20.6.2.3108 NMAC]

Review the **SUMMARY OF APPLICANT'S PUBLIC NOTICE REQUIREMENTS** (attached) to select an option below.

- Public Notice Option 1
 Public Notice Option 2
 Public Notice Option 3

1. Name of the proposed discharger and facility [20.6.2.3106, 20.6.2.3108.C.1 NMAC]:

Type of facility or operation (dairy, municipal wwtp, mining, school, etc.): Municipal WWTP

	Name	Address*	City	State	Zip	Telephone & Fax
Facility*	Village of Cimarron	356B E. 9th St.	Cimarron	NM	87714	(505) 376-2232 (505) 376-2810
Owner	V. Hage of Cimarron	356B E. 9th St.	Cimarron	NM	87714	(505) 376-2232 (505) 376-2810
Responsible Party	Mayor Leo P. Martinez	356B E. 9th St.	Cimarron	NM	87714	" "
Facility Representative	WED R Martinez	356B E 9th St	"	"	"	"
Consultant						
Other (specify)						

*For the facility address, enter physical address- not mailing address.

2. Locations of the Discharges [20.6.2.3106.C.2 and 20.6.3108.C.2 NMAC]:

List the locations of the discharges covered by this permit. Add rows as necessary to include all discharge locations. Sections should be described to the nearest 1/4 of a 1/4 of a 1/4 section (please see attachment).

Discharge Location (lagoons, leachfields, land application areas, outfalls, etc.)	County	Township	Range	Section	Latitude	Longitude
French Lake	Colfax	Cimarron				

3. Brief Description of Discharge [20.6.2.3108.C.3 NMAC]:

Briefly describe the activities which produce the discharge(s) including the treatment and disposal methods. Attach additional pages as necessary.

Basically the amount of water in the lagoons.

4. Discharge Characteristics [20.6.2.3106.C.1 and 20.6.2.3108.C.4 NMAC]:

4.a. **Quantity:**

Peak design discharge rate* in gallons per day (gpd) (design capacity of the treatment and disposal system):	<u>75,000</u> MGD
Average discharge rate on annual basis in gpd (actual flow):	<u>175,000</u>
Methods used to meter or calculate discharge volume:	<u>Parshall Flume</u>

*Peak design discharge rate is the maximum volume of wastewater the system was designed to treat on a daily basis. This is generally based on the capacity of the different components of the system (size of lagoons, volume of tanks, etc.)

4.b. **Quality:** Add rows as necessary to include all contaminants and toxic pollutants.

Contaminant(s) or Toxic Pollutant(s) generally associated with facility type (contaminants of concern are listed in 20.6.2.7. and 20.6.2.3103 NMAC)	Influent Concentration (mg/L)	Effluent Concentration (mg/L)
Total Dissolved Solids (TDS)	<u>not</u> <u>sample results enclosed</u>	
Total Kjeldahl Nitrogen		
Chloride		
Nitrate		

4.c. **Flow Characteristics:**

Number of days per week discharge occurs:	<u>5 days EVERY quarter</u>
Number of months per year discharge occurs (specify months):	<u>3 months Jan Jun Sept</u>
Is flow continuous or intermittent:	<u>Intermittent</u>

5. Ground Water Conditions [20.6.2.3106.C.3 and 20.6.2.3108.C.5 NMAC]:

Sources for this information may be the New Mexico State Engineers Office, NMED, GWPPS web site (www.nmenv.state.nm.us), and USGS reports. If you do not have a TDS value, take a sample from the nearest well to the discharge location and submit the results from the analysis.

Depth to ground water below the discharge site:	18 FT
Flow direction of ground water below the site:	
Flow gradient of ground water below the site:	
Reference* or source for depth, direction and gradient:	

* If determined from well logs, please provide photocopies of well logs with application. If depth is derived from a report include copies of appropriate pages and complete reference to report including author, title, and publication date.

Total Dissolved Solids (TDS) concentration (mg/L) of ground water below the site:	last Analytical Report enclosed
Reference or source for TDS:	American Intersplay

TECHNICAL ADEQUACY

To be deemed technically adequate, for purposes of issuing the discharge permit, the following information must be provided. [20.6.2.3106, 20.6.2.3107, 20.6.2.3109 NMAC]. Operational, monitoring, contingency, and closure plans must be submitted and must be appropriate for the proposed treatment and disposal type and meet the site specific conditions for the proposed facility.

6. Permit Plans [20.6.2.3106.C.7, 20.6.2.3107.A, and 20.6.2.3109.C NMAC]:

6.a. Operational Plan [20.6.2.3106.C.7 and 20.6.2.3109.C NMAC]:

The operational plan must describe how the system(s) for conveyance, collection, treatment, distribution, and disposal of wastewaters or other discharges will be constructed, operated, inspected, and maintained. The operational plan must demonstrate that ground water standards will not be exceeded.

6.a.i. In the following table, identify all proposed conveyance, collection, treatment distribution, and disposal units included in the operational plan. Add rows as necessary to include all units.

Treatment/Storage/ or Disposal Unit Treatment units (lagoon, mechanical treatment plant, manure separator, clarifier, etc.) Disposal Units (land application area, leachfield, evaporative lagoon, leachstockpile, etc.)	Construction Material	Volumetric Capacity*/Area* (gallons or cubic yards/ acres)
2 Lagoon	Concrete	

*Volumetric Capacity must be provided for all tanks, chambers, and impoundments or other storage units.

*Area must be provided for all land application areas, leachfields or other area features.

6.a.ii. Describe in detail the operational plan, including all conveyance, collection, treatment, distribution and disposal systems. Attach additional pages as necessary:

Copies attached

6.a.iii. Describe the operations and maintenance plan that will be followed to ensure the system is maintained as described. At a minimum the plan must include monthly inspections of all wastewater treatment and disposal units. Attach additional pages as necessary.

Copies Attached

6.b. Monitoring Plan [20.6.2.3106.C.5 and 20.6.2.3107.A.1-9 NMAC]:

The monitoring plan must describe how the facility will be monitored to ensure the discharge will not adversely impact ground water quality. The plan must include all monitoring locations (effluent sampling, monitoring wells, lagoons, soil sampling, plant tissue analysis, etc.). Monitoring locations must be included on the facility map.

6.b.i. Monitoring Locations. In the following tables, identify all monitoring locations. Add additional rows as necessary to include all monitoring locations.

Flow, Effluent and Ground Water Monitoring

Monitoring Location	Lat	Long	Northing	Easting	Elevation (also specify at what point in well casing)	Sampling Frequency per year	Reporting Frequency per year	Water or Soil Contaminant Type (please refer to 20.6.2.7.uu, and 20.6.3103 NMAC)
flow meter 1								(volume measurement)
flow meter 2								(volume measurement)
effluent quality*	XXXX					quarterly	quarterly	
monitoring well 1*						quarterly	quarterly	
monitoring well 2*						quarterly	quarterly	
monitoring well 3*						quarterly	quarterly	

*Identify the sampling locations as designated or named by the facility.

Soil, Plant Tissue and Other Sampling

Monitoring Location*	Lat	Long	Sampling Frequency per year	Reporting Frequency per year	Water or Soil Contaminant Type
land application area soil sampling	Don't Discharge to land				
land application area plant tissue analysis					
Other					
Other					

6.b.ii. Describe in detail the sampling protocols that will be used for sample collection at all monitoring locations. Attach additional pages as necessary.

Purging of wells 10 purges each well then taking samples
Samples from lagoons 1 each per quarter
One sample effluent FRENCH LAKE

6.b.iii. Standard Monitoring Requirements: The following paragraphs are standard permit conditions. Please read the condition and check the boxes that you will comply with as a condition of your permit.

- All monitoring wells will be installed according to NMED Monitoring Well Construction and Abandonment Guidelines (copy enclosed).
- All monitoring wells (if 3 or more monitoring wells are on site) will be surveyed to a common permanent benchmark and that the survey will be submitted to the NMED, GWQB within 60 days of installation of all monitoring wells. Survey data will include northing, easting, and elevation to the nearest hundredth of a foot. One of the wells may be used as the benchmark.
- This facility will measure the depth to ground water in each monitoring well to the nearest hundredth of a foot prior to purging and sampling, and that three well volumes will be purged from each monitoring well prior to sample collection.
- This facility will complete land application data sheets (LADS, copy enclosed) documenting the amount of nitrogen applied to each land application area if applicable. The LADS will incorporate the wastewater volume and analytical results of the wastewater testing to determine total nitrogen applied to each field.

6.c. Contingency Plan [20.6.2.3107.A.10 NMAC]:

The contingency plan must describe the actions to be taken if Regulation 20.6.2.3103 NMAC ground water standards are exceeded or if toxic pollutants are present (20.6.2.7.uu) as a result of discharges regulated under the proposed permit, and to cope with failure of the discharge permit or system.

6.c.i. Standard Contingency Requirements: The following paragraphs are standard permit conditions. Please read the condition and check the boxes that you will comply with as a condition of your permit.

- This Facility will comply with the following contingency language:

In the event that monitoring indicates ground water standards are violated or may be violated during the term of the discharge permit or upon post closure monitoring, this facility will collect a confirmation sample from the monitoring wells within 15 days to confirm the initial sampling results. Upon confirmation of contamination, all ground water monitoring will be conducted monthly and a corrective action plan will be submitted to the NMED. The corrective action plan will include a site investigation to define the source, nature and extent of ground water contamination and a proposed abatement option; and a schedule for implementation. The site investigation and abatement option must be consistent with the requirements and provisions of Regulations 20.6.2.4101, 20.6.2.4103, 20.6.2.4106.E, 20.6.2.4107, and 20.6.2.4112 NMAC. The corrective action plan will be submitted to NMED for approval within 30 days of confirmation of ground water contamination, and will be initiated within 30 days of NMED approval.



This facility will comply with the following contingency language:

In the event of a spill or release that is not as prescribed in the approved discharge permit, this facility will take immediate corrective action to contain or mitigate the damage caused by the discharge and will initiate the notifications and corrective actions as required by Regulation 20.6.2.1203 NMAC. Within 24 hours discovery of the incident, this facility will verbally notify NMED and provide the information outlined in Regulation 20.6.2.1203.A.1. NMAC. Within 7 days of discovering the incident, this facility will submit a written verifying the oral notification and providing any additional pertinent information or changes. Within 15 days of the incident, this facility will submit a corrective action plan describing actions taken and/or to be taken to remedy the impact of the unauthorized discharge.

6.c.ii. Specific Contingency Plan:

Describe any additional specific corrective actions or contingencies that will be taken to cope with failure of the discharge system: Attach additional pages as necessary.

Plans Attached

6.d. Closure Plan [20.6.2.3107.A.11 NMAC]:

The closure plan must describe the closure actions to be taken to prevent Regulation 20.6.2.3103 NMAC ground water standards from being exceeded, or the introduction of a toxic pollutant in ground water after cessation of operations. At a minimum, the closure plan must include a description of closure measures, post closure monitoring plans, and financial assurance (if required by NMED).

6.d.i. Specific Closure Plan: Describe the specific closure activities to ensure that ground water quality will be protected after cessation of operations. The plan shall include plugging, removal, and/or filling of all conveyance, collection, treatment, distribution and disposal features in order to prevent future discharges at the facility. The plan must also describe how all liquid and solid wastes will be removed and disposed of according to local, state, and federal laws. The plan must also describe how disturbed areas will be backfilled to blend with the original surface topography to prevent future ponding and to prevent a discharge at the facility from occurring after the cessation of operations. Attach additional pages as necessary.

Copies of Operational & Closure plan attached

6.d.ii. Standard Closure Requirements: The following paragraphs are standard permit conditions. Please read the condition and check the boxes that you will comply with as a condition of your permit.

This facility will comply with the following closure requirements:



The discharger will notify NMED at least 30 days prior to cessation of operations and will provide a schedule for implementation of the closure plan.



This facility will conduct post closure monitoring at the frequency and locations prescribed under the active permit for a period approved by NMED. If Regulation 20.6.2.3103 NMAC ground water standards are violated or toxic pollutants are present during post closure monitoring, this facility will implement the contingency plan required in the active permit.



All monitoring wells will be plugged and abandoned in accordance with NMED Monitoring Well Construction and Abandonment Guidelines once NMED has agreed in writing that post closure ground water monitoring may cease.



Once NMED has approved all closure activities, this facility will submit a letter requesting termination of the discharge permit.

TECHNICAL SUPPORT

The following information must be submitted as required by Regulation 20.6.2.3106, and 20.6.2.3109 NMAC.

7. Other Discharge Locations [20.6.2.3106.C.2 NMAC]:

7.a. List the locations of any other discharges at this facility not covered by this permit but permitted under the New Mexico Liquid Waste Disposal Regulations, Hazardous Waste Management Regulations, Federal Clean Water Act (NPDES), and any un-permitted discharges. Add rows as necessary to include all other discharge locations.

Discharge Type (septic tank/leachfields, surface water discharges, etc.)	Permit Identification	Discharge Location Description
septic Tank		Into lagoons

7.b. **Area Map:** On the appropriate United States Geological Survey (USGS) 7.5 minute topographic quadrangle map, identify the location of all water supply wells, injections wells, seeps, springs, bodies of water, and watercourses within one mile of the outside perimeter of the discharge site.

8. Flooding Potential [20.6.2.3106.C.4 NMAC]:

8.a. Describe the flooding potential of the discharge site based on the latest Federal Emergency Management Agency flood plain map or site specific analysis:

NONE

Source for Information: Flood plain Map

8.b. Describe the methods used to control flooding, run-on and run-off at the discharge site (berms, diversion channels, etc.):

Berms around lagoons

9. **Geologic and Soil Information** [20.6.2.3106.5 NMAC]:

9.a. **Lithology:** Describe the lithology and thickness of each geologic unit below the discharge site and indicate which units bear water. This information may be obtained from a driller's log or geologic report. Include photocopies of all well logs with the application. Add rows as necessary to include all units.

Unit Description	Thickness (feet)	Water Bearing (Y/N)
French lake	N/A	Y

Source for Information: _____

9.b. **Soil Map:** Attach a copy of the United States Department of Agriculture (USDA) Natrual Resources Conservation Service (NRCS) soil survey map and descriptive information for soil(s) associated with the discharge site.

10. **Signatures:**

Owner: I certify that I am the legal owner of the property in which all discharges will occur. I certify that I am knowledgeable about the information contained in this application, and believe the information is true, complete and accurate.

Print Name: _____

Signature: _____ Date _____

Responsible Party* (if property is leased or operated by someone other than the owner):

I certify that I am knowledgeable about the information contained in this application, and believe the information is true, complete and accurate.

Print Name: _____

Signature: _____ Date _____

* Enclose a signed copy of the lease agreement between the responsible party and the owner of the property on which the proposed discharge will occur. Lease agreement should be valid for the duration of the discharge permit or until the discharge permit is modified to reflect a new lessee.

SUMMARY OF APPLICANT'S PUBLIC NOTICE REQUIREMENTS FOR GROUND WATER DISCHARGE PERMITS

The New Mexico Water Quality Control Commission Regulations (20.6.2 NMAC) public notice requirements of 20.6.2.3108 NMAC were revised **effective September 15, 2002** to require the applicant to provide notice to neighboring properties during the discharge permit application process. This document summarizes the applicant's public notice requirements and provides answers to frequently asked questions.

The Water Quality Control Commission Regulations are available on the New Mexico Environment Department's (NMED) internet web site. The web site address is:

www.nmenv.state.nm.us

Click on the heading "Environmental Protection Regulations", then "Water Quality-- Ground and Surface Water Protection". The public notice regulations are in Section 20.6.2.3108 NMAC. You can also call the Ground Water Quality Bureau at (505) 827-2900 and we will mail you a copy of the regulations.

STEP 1 – SELECTING AND IMPLEMENTING A PUBLIC NOTICE OPTION

Anyone applying for a new permit or renewing or modifying an existing permit must provide public notice to neighboring properties (See FAQs). The applicant must select one of three public notice options by checking the selected box on page 3 of the Ground Water Discharge Permit Application. **When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and materials necessary to implement the selected public notice option.** The applicant must implement the public notice option within 30 days of submitting their application to the NMED. The applicant's public notice options are:

Public Notice Option 1

Posting a sign: The sign must be prominently posted in a conspicuous public location at or near the existing or proposed facility for 30 days. The sign should be visible so that passersby are likely to see it. The sign will be a synopsis of the full public notice prepared by NMED.

and

Sending direct notice to adjacent property owners: The public notice prepared by NMED must be sent to all "adjacent property" "owners of record" by certified mail, return receipt requested.

and

Sending direct notice to the owner of the discharge site: If the applicant is not the owner of the discharge site, the applicant must send the public notice prepared by NMED to the owner, by certified mail, return receipt requested.

Public Notice Option 2

Posting a sign: The sign must be prominently posted in a conspicuous public location at or near the existing or proposed facility for 30 days. The sign should be visible so that passersby are likely to see it. The sign will be a synopsis of the full public notice prepared by NMED.

and

Placing a display advertisement: The display ad must be at least two inches by three inches in size and must be published in a newspaper of general circulation in the location of the proposed discharge. The display ad will be a synopsis of the full public notice prepared by NMED.

and

Sending direct notice to the owner of the discharge site: If the applicant is not the owner of the discharge site, the applicant must send the public notice prepared by NMED to the owner, by certified mail, return receipt requested.

Public Notice Option 3

Sending direct notice to property owners within 1/2 mile of the discharge site: The public notice prepared by NMED must be sent to all property "owners of record" within 1/2 mile of the discharge site by certified mail, return receipt requested.

and

Sending direct notice to the owner of the discharge site: If the applicant is not the owner of the discharge site, the applicant must send the public notice prepared by NMED to the owner, by certified mail, return receipt requested.

Step 2 - Providing Proof that the Applicant Completed Public Notice

Proof of Notice

Within 15 days of completion of the public notice requirements above, the applicant must submit proof of notice to NMED. Depending on the option selected, proof of notice may include list of property owners' names and addresses, copies of certified mail return receipts, a copy of the published display ad indicating the newspaper and date of publication, and an affidavit of sign posting. If the department determines that the notice provided is inadequate, the department may require additional notice in accordance with the requirements above.

Important Definitions

The following definitions are excerpted from the Water Quality Control Commission regulations, 20.6.2 NMAC.

"adjacent properties" means properties that are contiguous to the discharge site or property that would be contiguous to the discharge site but for being separated by a public or private right of way, including roads and highways.

"discharge site" means the entire site where the discharge and associated activities will take place.

"owner of record" means an owner of property according to the property records of the tax assessor in the county in which the discharge site is located.

Frequently Asked Questions

Where can I get a copy of the new public notice regulations?

The Water Quality Control Commission Regulations are available on the New Mexico Environment Department's (NMED) internet web site. The web site address is:

www.nmenv.state.nm.us

Click on the heading "Environmental Protection Regulations", then "Water Quality— Ground and Surface Water Protection". The public notice regulations are in Section 20.6.2.3108 NMAC.

You can also call the Ground Water Quality Bureau at (505) 827-2900 and we will mail you a copy of the regulations.

When do the new public notice regulations go into effect?

September 15, 2002

Do the new public notice regulations apply to me?

The regulations apply to all applications for new permits, renewals, and modifications that are submitted to NMED on or after September 15, 2002. Page 3 of the application has a section for the applicant to select one of three public notice options. If you submitted an application for a new discharge permit, renewal or modification before September 15, 2002, then the regulations will not apply to you until you renew or modify your permit, even if your permit has not yet been issued.

Where at my facility should the sign be posted?

In many cases the sign should be posted in a location near the front entrance to the facility where it is likely to be seen by passersby. Other conspicuous public locations can be approved in advance by the Ground Water Quality Bureau if they are more likely to provide notice to the public. You can contact the Ground Quality Bureau at the number below to obtain approval for an alternate sign posting location.

Where do I get the sign that will be posted at my facility?

When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and a laminated poster with an invoice for \$15.00.

How long do I have to keep the sign up at my facility?

The sign must be posted for 30 days.

What properties are considered to be "adjacent" to my property?

"Adjacent properties" are those properties that are contiguous to the discharge site or that would be contiguous to the discharge site except for being separated by a public or private right of way, including roads and highways.

Who are property "owners of record" and where can I find their names and addresses?

An "owner of record" is an owner of property according to the property records of the tax assessor in the county in which the discharge site is located. You can call your county tax assessor and they can, in most cases, provide names and addresses of owners of record within 24 hours. You will need to provide the tax assessor with the location of your discharge site and ask for names and addresses of adjacent properties.

Is there a letter format I should use for the direct notice to property owners?

When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and materials necessary to provide direct notice to property owners.

What if there are no adjacent properties other than properties I own?

If the applicant owns the adjacent properties, then they must implement Option 2 by posting a sign, placing a display ad and notifying the property owner if the owner is different from the applicant.

Is there a required format for the display advertisement?

When the NMED receives the application and deems it administratively complete, we will send the applicant the instructions and materials necessary to place a display advertisement.

What proof must I provide to the NMED to demonstrate that I provided public notice in accordance with the new regulations?

Within 15 days of completion of the public notice requirements, the applicant must submit proof of notice to NMED. Depending on the option selected, proof of notice may include a list of property owners' names and addresses, copies of certified mail return receipts, a copy of the published display ad indicating the newspaper and date of publication, and a signed affidavit that the sign was posted. If the department determines that the notice provided is inadequate, the department may require additional notice in accordance with the new regulations.

Who do I contact if I have additional questions?

You may contact Bill Olson, Chief of the Ground Water Quality Bureau or George Schuman, Program Manager of the Ground Water Pollution Prevention Section at (505) 827-2900.

APPENDIX F
Cost Estimates



BEYOND ENGINEERING

Project: Wastewater System Improvements
Location: Cimarron, New Mexico
Subject: Cost Estimate for Aerated Lagoons
Client: Village of Cimarron

Date: Jan-2008
Job No.: CSB070002
Prep. By: MPT
Ckd. By: TRR

Aerated Lagoons

ITEM NO.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	ITEM COST
1	Construction Survey	LS	1	\$ 50,000.00	\$ 50,000.00
2	Clearing and Grubbing, Light trees up to 6" diam.	Ac	1.70	\$ 2,667.50	\$ 4,532.00
3	Remove Existing Concrete	CY	28,000	\$ 2.95	\$ 82,544.00
4	Dividing Wall in Lagoons, Concrete	CY	373	\$ 475.00	\$ 177,334.00
5	Synthetic Liner on Lagoon	SF	261,360	\$ 0.40	\$ 104,544.00
6	Rip Rap, 9"	SY	2,467	\$ 65.00	\$ 160,334.00
7	Pipe Work to Connect Complete Mix to Partial Mix	LF	150	\$ 19.80	\$ 2,970.00
8	Pipe Work to Connect Partial Mix to Chlorination	LF	120	\$ 19.80	\$ 2,376.00
9	Outfall Structure	LS	1	\$ 20,000.00	\$ 20,000.00
10	Aeration Equipment for Complete and Partial Mix Lagoons	LS	1	\$ 50,000.00	\$ 50,000.00
11	Controls and Electrical Lines for Aeration Equipment	LS	1	\$ 120,000.00	\$ 120,000.00
12	Temporary Disinfection	LS	1	\$ 5,000.00	\$ 5,000.00
13	Bypass Pumping	LS	1	\$ 6,000.00	\$ 6,000.00
14					
15				Subtotal	\$ 785,634.00
16					
17	Engineering & Misc. Fees				
18	Civil Engineering/Survey	LS	1	\$ 100,000.00	\$ 100,000.00
19	Structural Engineering	LS	1	\$ 50,000.00	\$ 50,000.00
20	Electrical/Mechanical Engineering	LS	1	\$ 10,000.00	\$ 10,000.00
21	Geotechnical Analysis	LS	1	\$ 20,000.00	\$ 20,000.00
22	Legal	LS	1	\$ 5,000.00	\$ 5,000.00
				Professional Services Subtotal	\$ 185,000.00
				Subtotal	\$ 970,634.00
				Construction Observation	\$ 130,000.00
				15% Contingency	\$ 165,096.00
				Total Cost:	\$ 1,265,730.00

PROFESSIONAL ENGINEERING AND MISC. FEES ARE ROUGH ESTIMATES AND ARE INTENDED FOR BUDGETARY PURPOSES ONLY.
 A DETAILED COST ANALYSIS AND CONTRACT AGREEMENT SHALL BE COMPLETED FOR THE FINAL PROJECT EXECUTION.
 UNIT PRICES ARE ONLY GOOD FOR THREE (3) MONTHS FROM DATE OF REVISED PRELIMINARY ENGINEERING REPORT AND
 SHALL BE REEVALUATED AT THE TIME OF PROJECT EXECUTION.



BEYOND ENGINEERING

Project: Wastewater System Improvements
Location: Cimarron, New Mexico
Subject: Cost Estimate for Total Evaporative Lagoons
Client: Village of Cimarron

Date: Jan-2008
Job No.: CSB070002
Prep. By: MPT
Ckd. By: TRR

Total Evaporative Lagoons

ITEM NO.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	ITEM COST
1	Construction Survey	LS	1	\$ 50,000.00	\$ 50,000.00
2	Clearing and Grubbing, Light trees up to 6" diam.	Ac	1.70	\$ 2,667.50	\$ 4,532.00
3	Excavation of New Lagoons, Bulk Scrapers	CY	316,213	\$ 10.00	\$ 3,162,134.00
4	Remove Existing Concrete	SF	28,000	\$ 2.95	\$ 82,544.00
5	Synthetic Liner on Lagoon	SF	2,439,360	\$ 0.40	\$ 975,744.00
6	Rip Rap, 9"	SY	6,028	\$ 65.00	\$ 391,806.00
7	Distribution Header, 8"	LF	2,630	\$ 60.00	\$ 157,800.00
8	Purchase 56 Additional Acres of Land	Ac	56	\$ 2,000.00	\$ 112,000.00
9	Temporary Disinfection	LS	1	\$ 5,000.00	\$ 5,000.00
10	Bypass Pumping	LS	1	\$ 6,000.00	\$ 6,000.00
11					
12				Subtotal	\$ 4,947,560.00
13					
14	Engineering & Misc. Fees				
15	Civil Engineering/Survey	LS	1	\$ 125,000.00	\$ 125,000.00
16	Structural Engineering	LS	1	\$ 75,000.00	\$ 75,000.00
17	Geotechnical Analysis	LS	1	\$ 30,000.00	\$ 30,000.00
18	Legal	LS	1	\$ 50,000.00	\$ 50,000.00
				Professional Services Subtotal	\$ 280,000.00
				Subtotal	\$ 5,227,560.00
				Construction Observation	\$ 130,000.00
				15% Contingency	\$ 803,634.00
				Total Cost:	\$ 6,161,194.00

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 SHALL BE REEVALUATED AT THE TIME OF PROJECT EXECUTION.

BEYOND ENGINEERING

Project: Wastewater System Improvements
Location: Cimarron, New Mexico
Subject: Cost Analysis
Client: Village of Cimarron

Date: Jan-2008
Job No.: CSB070002
Prep. By: MPT
Ckd. By: TRR

Cost Analysis

Project Alternative	Capital Cost	Annual O&M Cost	Present Worth of Annual O&M Costs Over 20yrs.*	Present Worth Total (20 Year) Cost
Aerated Lagoons	\$ 1,265,800	\$ 63,000	\$ 1,731,999	\$ 2,997,799
Total Evaporative Lagoons	\$ 6,161,200	\$ 35,000	\$ 962,222	\$ 7,123,422

*Cost calculated using "Real" federal discount rate from Appendix C of OMB Circular A-94

Operation and Maintenance Costs for **Aerated Lagoons**

Item Description	Price/Year
Employee Salary and Benefits	\$ 28,000
Regular Maintenance of System	\$ 5,000
Disinfection Costs	\$ 10,000
Electric Costs for Aerators, 26hp, 24hrs/day, \$0.10/KWH	\$ 20,000
Total	\$ 63,000

Operation and Maintenance Costs for **Total Evaporative Lagoons**

Item Description	Price/Year
Employee Salary and Benefits	\$ 28,000
Regular Maintenance of System	\$ 7,000
Total	\$ 35,000



BEYOND ENGINEERING

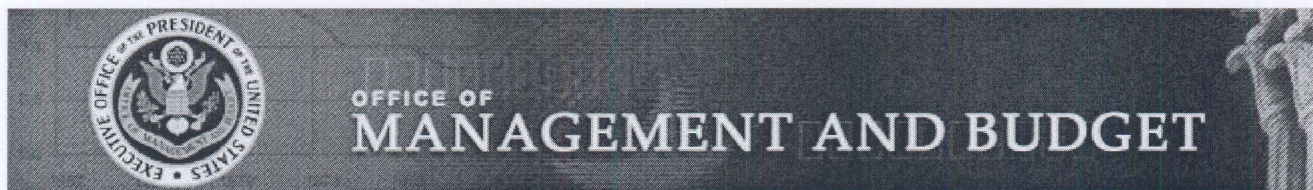
Project: Wastewater System Improvements
 Location: Cimarron, New Mexico
 Subject: Cost Estimate for Intermediate Headworks
 Client: Village of Cimarron

Date: Jan-2008
 Job No.: CSB070002
 Prep. By: MPT
 Ckd. By: TRR

Intermediate Projects - Update Headworks

ITEM NO.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	ITEM COST
1	In-Channel Grinder	EA	1	\$ 120,000.00	\$ 120,000.00
2	3 Phase Power	LS	1	\$ 20,000.00	\$ 20,000.00
3	Equalization Basin	LS	1	\$ 30,000.00	\$ 30,000.00
4	Headloss Pumps	EA	2	\$ 80,000.00	\$ 160,000.00
5	Headworks Structure	LS	1	\$ 25,000.00	\$ 25,000.00
6	Controls	LS	1	\$ 25,000.00	\$ 25,000.00
7					
8				Subtotal	\$ 380,000.00
9					
10	Engineering & Misc. Fees				
11	Survey	LS	1	\$ 10,000.00	\$ 10,000.00
12	Easement Dedication	LS	1	\$ 6,000.00	\$ 6,000.00
13	Civil Engineering	LS	1	\$ 50,000.00	\$ 50,000.00
14	Structural Engineering	LS	1	\$ 15,000.00	\$ 15,000.00
15	Electrical/Mechanical Engineering	LS	1	\$ 15,000.00	\$ 15,000.00
16	Legal	LS	1	\$ 10,000.00	\$ 10,000.00
				Professional Services Subtotal	\$ 106,000.00
				Subtotal	\$ 486,000.00
				Construction Observation	\$ 65,000.00
				15% Contingency	\$ 82,650.00
				Total Cost:	\$ 633,650.00

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 UNIT PRICES ARE ONLY GOOD FOR THREE (3) MONTHS FROM DATE OF REVISED PRELIMINARY ENGINEERING REPORT AND
 SHALL BE REEVALUATED AT THE TIME OF PROJECT EXECUTION.



OMB Circular No. A-94

APPENDIX C Revised January 2007

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DISCOUNT RATES FOR COST-EFFECTIVENESS, LEASE PURCHASE, AND RELATED ANALYSES

Effective Dates. This appendix is updated annually around the time of the President's budget submission to Congress. This version of the appendix is valid for calendar year 2007. A copy of the updated appendix can be obtained in electronic form through the OMB home page at http://www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html, the text of the main body of the Circular is found at <http://www.whitehouse.gov/omb/circulars/a094/a094.html>, and a table of past years' rates is located at <http://www.whitehouse.gov/omb/circulars/a094/dischist-2007.pdf>. Updates of the appendix are also available upon request from OMB's Office of Economic Policy (202-395-3381).

Nominal Discount Rates. A forecast of nominal or market interest rates for 2007 based on the economic assumptions from the 2008 Budget are presented below. These nominal rates are to be used for discounting nominal flows, which are often encountered in lease-purchase analysis.

Nominal Interest Rates on Treasury Notes and Bonds of Specified Maturities (in percent)

3-Year	5-Year	7-Year	10-Year	20-Year	30-Year
4.9	4.9	4.9	5.0	5.1	5.1

Real Discount Rates. A forecast of real interest rates from which the inflation premium has been removed and based on the economic assumptions from the 2008 Budget is presented below. These real rates are to be used for discounting real (constant-dollar) flows, as is often required in cost-effectiveness analysis.

Real Interest Rates on Treasury Notes and Bonds of Specified Maturities (in percent)

3-Year	5-Year	7-Year	10-Year	20-Year	30-Year
2.5	2.6	2.7	2.8	3.0	3.0

Analyses of programs with terms different from those presented above may use a linear interpolation. For example, a four-year project can be evaluated with a rate equal to the average of the three-year and five-year rates. Programs with durations longer than 30 years may use the 30-year interest rate.

Other Documents

Text of OMB Circular No. A-94 in [HTML](#) or [PDF](#) (269k)

APPENDIX G
Product/Vender Information

Cimarron WW Lagoons
Cimarron, NM
Nolte Associates

Objective: Recommend quantity and size of Aqua-Jet II covered discharge aerators for lagoon treatment at high altitude.

Design Data:

Wastewater Characteristics

Average Flow	=	0.18 MGD
Peak Flow	=	0.80 MGD
Wastewater Temp	=	20 °C (summer, assumed)
	=	10 °C (winter, assumed)
Influent BOD	=	200 mg/l
Influent TSS	=	200 mg/l
Effluent BOD	=	30 mg/l
Effluent TSS	=	30 mg/l

Basin Dimensions

WS Dimensions	=	420 ft x 300 ft
Bottom Dimensions	=	372 ft x 252 ft
Water Depth	=	8 ft
Side Slope	=	3:1
Volume	=	6.55 MG
Material	=	earthen
Elevation	=	7000 ft

Scope:

Recommend quantity and size of Aqua-Jet II covered discharge aerators for lagoon treatment at high altitude.

Calculations:

Hydraulic Retention Time

$$\begin{aligned} \text{HRT} &= 6.55 \text{ MG} / 0.18 \text{ MGD} \\ &= 36.3889 \text{ days} \end{aligned}$$

Actual Oxygen Requirement

The oxygen demand is based on 1.3 lb O₂ / lb BOD applied.

$$\begin{aligned} \text{AOR (BOD)} &= 1.3 \text{ lb/lb} \times 200 \text{ mg/l} \times 0.18 \text{ MGD} \times 8.34 / 24 \text{ hr} \\ &= 16 \text{ lb O}_2 / \text{hr} \end{aligned}$$

Field Oxygen Transfer Efficiency

$$\text{FTE} = \frac{\text{SOTE} \times [(C_s \times \beta) - C_r] \times 1.024^{(T-20)} \times \alpha}{9.09}$$

where:

$$\begin{aligned} \text{SOTE} &= 2.1 \text{ lbs O}_2 / \text{BHP-hr} \\ T &= 20 \text{ }^\circ\text{C (assumed)} \\ C_s &= 6.95 \text{ mg/l (at 20oC and 7000 ft)} \\ \beta &= 0.95 \text{ (typical, assumed)} \\ \alpha &= 0.85 \text{ (typical, assumed)} \\ C_r &= 2.0 \text{ mg/l} \end{aligned}$$

$$\text{FTE} = 0.90 \text{ lbs O}_2 / \text{BHP-hr}$$

Power Requirements

$$\begin{aligned} \text{Power (aeration)} &= \frac{16 \text{ lb/hr}}{0.9 \text{ lb/BHP-hr} \times 0.92} \\ &= 19 \text{ HP} \end{aligned}$$

A mixing level of approximately 4 HP/MG is recommended to provide partial mix conditions and oxygen dispersion.

$$\begin{aligned} \text{Power (mixing)} &= 4 \text{ HP/MG} \times 6.55 \text{ MG} \\ &= 26 \text{ HP} \end{aligned}$$

The energy demand for oxygen dispersion is greater than the calculated oxygen demand even at peak flow. Therefore this leads to a recommendation of four (4) - 7.5 HP Aqua-Jet II aerators.

Recommendation:

Recommend four (4) - 7.5 HP Aqua-Jet II SS aerators with FRP covered discharge for winter operation.

DRH

liquid **LWMA** *management, inc.*

September 20, 2007

Mr. Mike Trinity
Project Engineer
Nolte & Associates
719-268-8569 / Fax: 719-268-9200

SENT VIA FAX: & U.S. MAIL

Re: Estimate for the Complete Cleanout of the Town of Cimarron's Two Lagoons:

Dear Mr. Trinity:

It was a pleasure to visit the Village of Cimarron this week and I truly enjoyed meeting the Village's staff. I would like to thank all of them for their help and their hospitality.

The following is provided for estimate purposes only. After profiling the two lagoons at the Village of Cimarron's Water Reclamation Facility and base on information you have provided, Liquid Waste Management (LWM) would recommend the total cleanout both of the lagoons. The total cleanout of the lagoons will remove all of sludge buildup that is presently in the lagoons. To perform a total cleanout of the lagoons the influent flow would have to be diverted from lagoon 1 to either lagoon 2 or a newly constructed lagoon 3. Then LWM would pump the top water off lagoon 1 to lagoon 2 or 3 exposing the biosolids to be removed, transported, and land applied for beneficial reuse. This procedure would be repeated to cleanout lagoon 2.

The biosolids will be removed and transport to EPA permitted land application sites within a (10) mile radius of the lagoons. All of the biosolids will be handled and land applied subject to all regulations, including EPA part 503 and State and Local regulations.

Following is our cost estimate:

Mobilization:	\$15,000 per mobilization
Removal, Transportation, and Land Application:	\$0.065 per gallon

***TOTAL cost (based on 7,000,000 gallons & 1 mobilization) \$470,000**

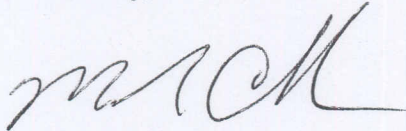
Final cost will depend on the number of mobilizations to the site & the actual number of gallons removed, transported, and land applied.

The Village of Cimarron will be responsible for maintaining the access road into and out of the Lagoons, as well as being responsible to pay any State fee associated with the land application of biosolids.

liquid waste management, inc.

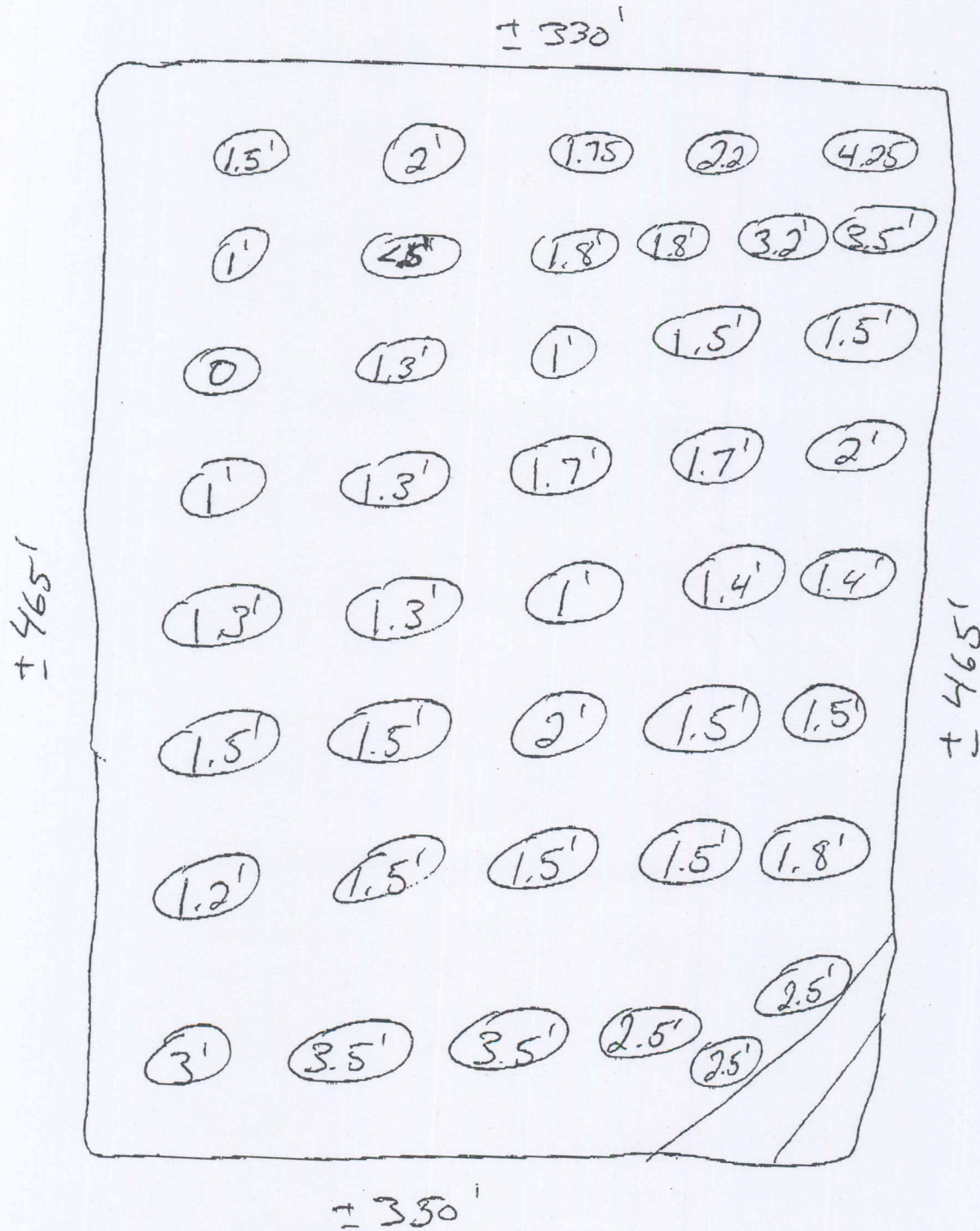
Please be advised to allow 3-4 months for site locating and permitting. We are estimating that we will need to permit 1000 acres of tillable land divided among different landowners for the land application of the lagoon biosolids. With the time requirements the Village is trying to achieve, scheduling the Project is very important. Weather factors can delay or postpone the project at any time. Issues with weather, cropping schedules, and farmer preferences can affect the ability to have adequate land area to apply biosolids even if the land is permitted for use. LWM has the understanding, prior experience, and current working relationships to help facilitate the project and adjust to the circumstances that arise. I am estimating 40-60 working days to complete this project, weather permitting. At the appropriate time LWM would like to make an additional visit prior to submitting a firm price quote. Please call me at 303-651-7070 or 1-800-696-6691 if you have any questions.

Yours truly,



Mark Cubbon
Sales/Business Development Manager

Pond # 1

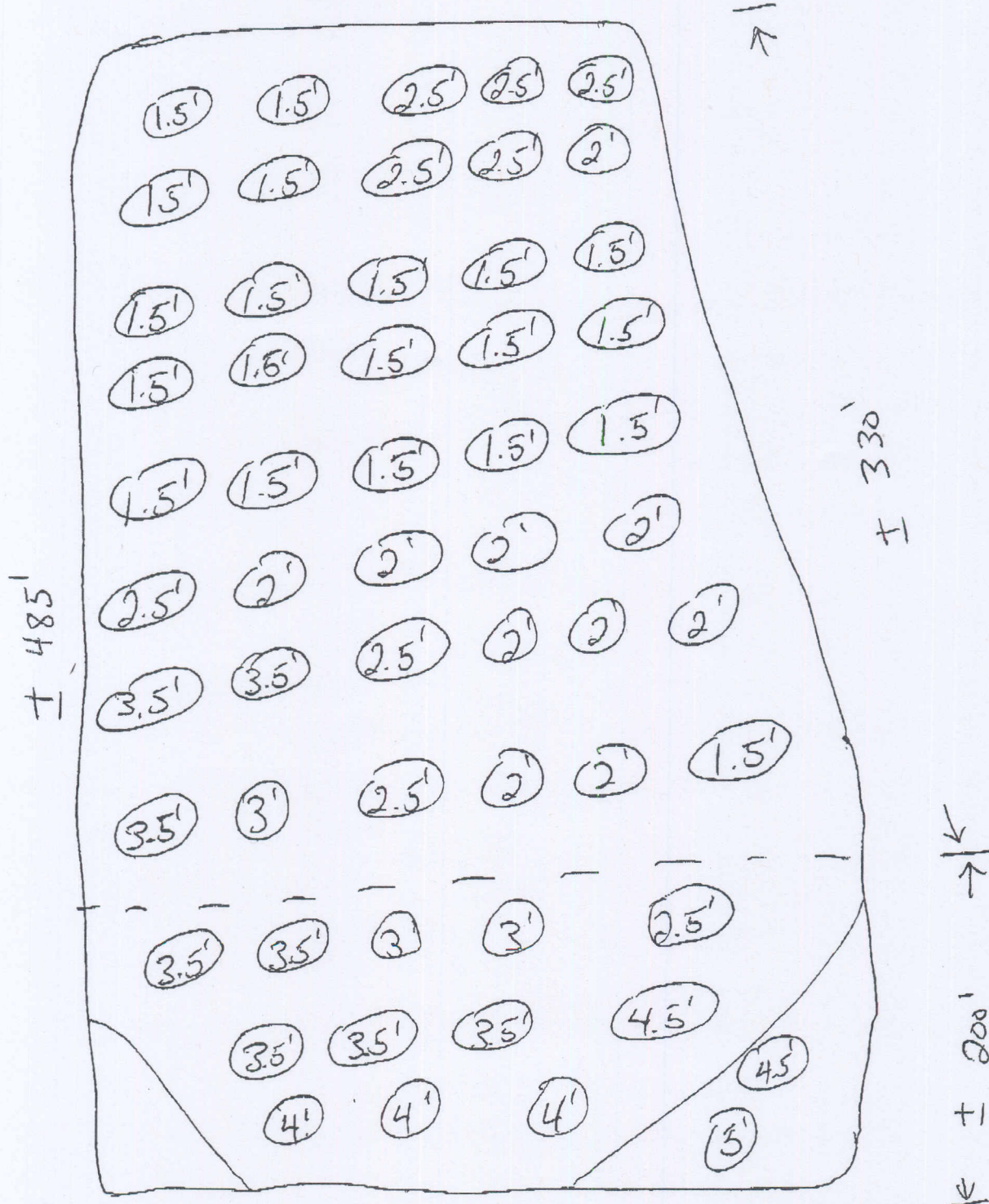


○ - Location of Probe and approximate depth of liquid waste.

Cimarron, NM

Pond #2

± 185'



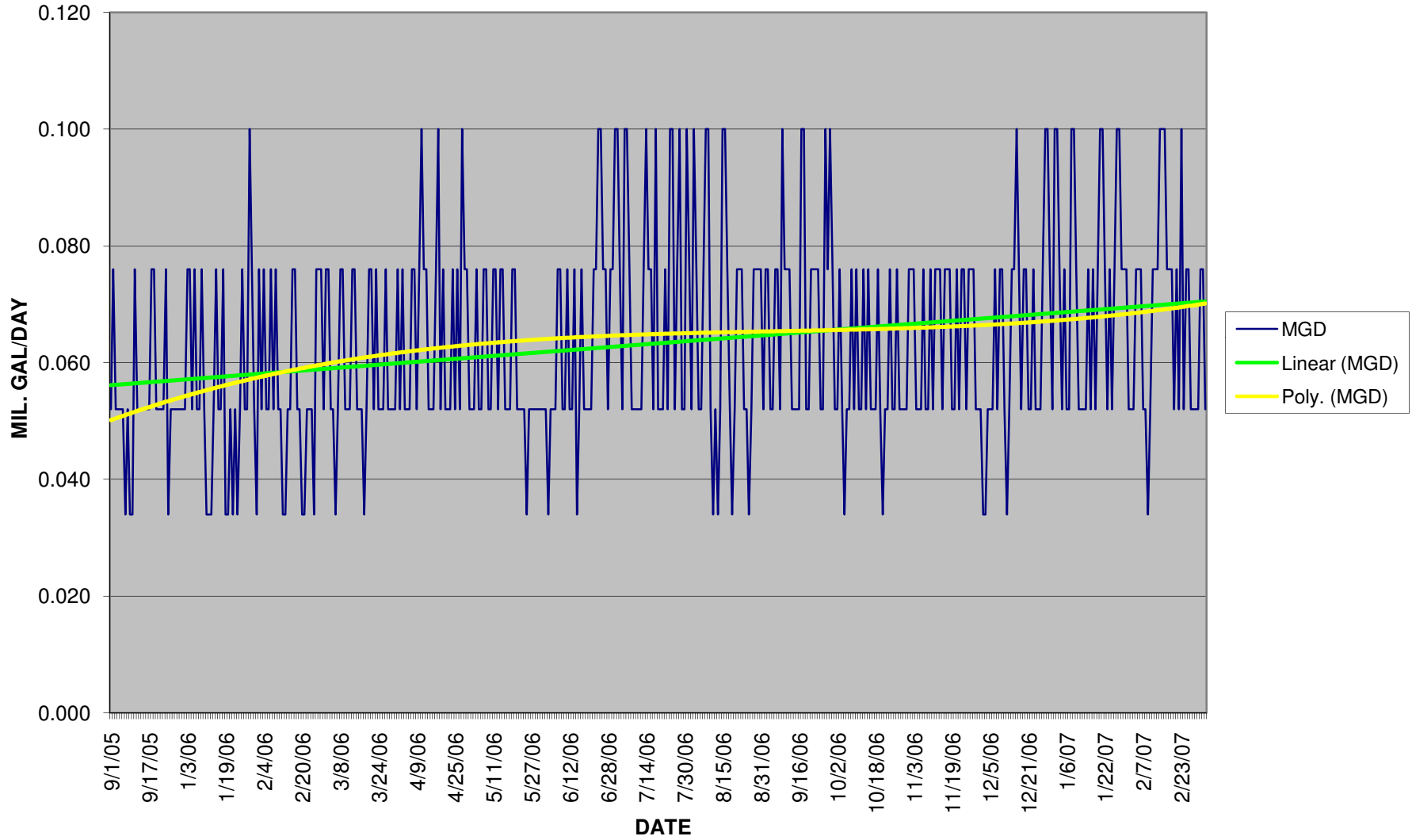
O - location of probe & approximate depth of biosolids

APPENDIX H

Current Operation Plan

*This daily wastewater report was generated from daily observations transferred to an excel spreadsheet. The precision of these readings is low considering the operator can only measure the flume to the nearest 0.05 foot. Each change in 0.05 feet equals a change of 24,000gpd.

MONTHLY WASTE WATER REPORT



MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
SEPTEMBER, 2005	9/1/05	8:20	LM	0.200	0.052	
	9/2/05	8:15	LM	0.250	0.076	
	9/3/05	8:25	LM	0.200	0.052	
	9/4/05	8:19	LM	0.200	0.052	
	9/5/05	8:20	LM	0.200	0.052	
	9/6/05	8:30	LM	0.200	0.052	
	9/7/05	9:00	LM	0.150	0.034	
	9/8/05	8:10	LM	0.200	0.052	
	9/9/05	8:10	LM	0.150	0.034	1,000 gal Haynie
	9/10/05	8:20	DC	0.150	0.034	
	9/11/05	8:54	DC	0.250	0.076	
	9/12/05	8:27	LM / DC	0.200	0.052	
	9/13/05	8:30	LM / DC	0.200	0.052	
	9/14/05	9:20	LM / DC	0.200	0.052	
	9/15/05	8:45	LM / DC	0.200	0.052	
	9/16/05	8:17	LM / DC	0.200	0.052	
	9/17/05	8:30	LM	0.200	0.052	
	9/18/05	8:11	LM	0.250	0.076	
	9/19/05	8:10	LM / DC	0.250	0.076	
	9/20/05	8:14	LM / DC	0.200	0.052	
	9/21/05	8:35	LM / DC	0.200	0.052	
	9/22/05	8:30	LM / DC	0.200	0.052	
	9/23/05	8:28	LM / DC	0.200	0.052	
	9/24/05	8:11	DC	0.250	0.076	
	9/25/05	8:40	DC	0.150	0.034	
	9/26/05	8:30	LM / DC	0.200	0.052	
	9/27/05	8:17	LM / DC	0.200	0.052	
	9/28/05	8:20	LM / DC	0.200	0.052	1,000 gal Haynie
	9/29/05	8:30	LM / DC	0.200	0.052	
	9/30/05	8:25	LM / DC	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
JANUARY, 2006	1/1/06	10:00	DC	0.200	0.052	
	1/2/06	8:30	LM	0.200	0.052	Discharged French Lake
	1/3/06	8:45	LM	0.250	0.076	Discharged French Lake
	1/4/06	8:30	LM	0.250	0.076	Discharged French Lake
	1/5/06	8:35	LM	0.200	0.052	Discharged French Lake
	1/6/06	9:00	LM	0.250	0.076	Discharged French Lake
	1/7/06	9:00	LM	0.200	0.052	Discharged French Lake
	1/8/06	8:35	LM	0.200	0.052	Discharged French Lake
	1/9/06	8:40	LM	0.250	0.076	
	1/10/06	8:20	LM	0.200	0.052	
	1/11/06	8:30	LM	0.150	0.034	
	1/12/06	8:35	LM	0.150	0.034	
	1/13/06	9:00	LM	0.150	0.034	
	1/14/06	9:00	DC	0.200	0.052	
	1/15/06	9:00	DC	0.250	0.076	
	1/16/06	8:40	LM	0.200	0.052	
	1/17/06	10:00	LM	0.200	0.052	
	1/18/06	8:15	LM	0.250	0.076	
	1/19/06	8:30	LM	0.150	0.034	
	1/20/06	8:35	LM	0.150	0.034	
	1/21/06	8:10	LM	0.200	0.052	
	1/22/06	8:45	LM	0.150	0.034	
	1/23/06	8:45	LM	0.200	0.052	
	1/24/06	9:00	LM	0.150	0.034	
	1/25/06	9:00	LM	0.200	0.052	
	1/26/06	9:00	LM	0.250	0.076	
	1/27/06	8:35	LM	0.200	0.052	
	1/28/06	9:00	DC	0.200	0.052	
	1/29/06	9:00	DC	0.300	0.1	
	1/30/06	8:40	LM	0.250	0.076	
	1/31/06	9:00	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
FEBRUARY, 2006	2/1/06	9:30	LM	0.150	0.034	
	2/2/06	9:00	LM	0.250	0.076	
	2/3/06	9:00	LM	0.200	0.052	
	2/4/06	8:30	LM	0.250	0.076	
	2/5/06	8:30	LM	0.200	0.052	
	2/6/06	9:00	LM	0.200	0.052	
	2/7/06	9:20	LM	0.250	0.076	
	2/8/06	9:00	LM	0.200	0.052	
	2/9/06	8:30	LM	0.250	0.076	
	2/10/06	8:35	LM	0.200	0.052	
	2/11/06	8:30	DC	0.200	0.052	
	2/12/06	10:00	DC	0.150	0.034	
	2/13/06	9:00	LM	0.150	0.034	
	2/14/06	9:15	LM	0.200	0.052	
	2/15/06	8:30	LM	0.200	0.052	
	2/16/06	8:30	LM	0.250	0.076	
	2/17/06	8:30	LM	0.250	0.076	
	2/18/06	9:35	AF	0.200	0.052	
	2/19/06	8:45	AF	0.200	0.052	
	2/20/06	8:30	LM	0.150	0.034	
	2/21/06	8:45	LM	0.150	0.034	
	2/22/06	9:00	LM	0.200	0.052	
	2/23/06	8:30	LM	0.200	0.052	
	2/24/06	8:30	LM	0.200	0.052	
	2/25/06	8:30	LM	0.150	0.034	
	2/26/06	8:15	LM	0.250	0.076	
	2/27/06	9:00	LM	0.250	0.076	
	2/28/06	9:00	LM	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
MARCH, 2006	3/1/06	9:00	LM	0.200	0.052	
	3/2/06	9:00	LM	0.250	0.076	
	3/3/06	9:00	LM	0.250	0.076	
	3/4/06	9:30	AF	0.200	0.052	
	3/5/06	9:30	AF	0.200	0.052	
	3/6/06	8:10	LM	0.150	0.034	
	3/7/06	9:00	LM	0.200	0.052	
	3/8/06	8:25	LM	0.250	0.076	
	3/9/06	8:15	LM	0.250	0.076	
	3/10/06	9:00	LM	0.200	0.052	
	3/11/06	9:30	DC	0.200	0.052	
	3/12/06	9:30	DC	0.200	0.052	
	3/13/06	8:30	LM	0.250	0.076	
	3/14/06	8:30	LM	0.250	0.076	
	3/15/06	8:15	LM	0.200	0.052	
	3/16/06	8:25	LM	0.200	0.052	
	3/17/06	8:20	LM	0.200	0.052	
	3/18/06	8:10	LM	0.150	0.034	
	3/19/06	8:35	LM	0.200	0.052	
	3/20/06	9:00	AF, DC	0.250	0.076	
	3/21/06	9:10	AF, DC	0.250	0.076	
	3/22/06	8:35	AF, DC	0.200	0.052	
	3/23/06	8:30	AF, DC	0.250	0.076	
	3/24/06	8:35	LM, AF	0.200	0.052	
	3/25/06	9:00	AF	0.200	0.052	
	3/26/06	9:00	AF	0.200	0.052	
	3/27/06	8:35	LM	0.250	0.076	
	3/28/06	8:30	LM	0.200	0.052	
	3/29/06	8:30	LM	0.200	0.052	
	3/30/06	8:15	LM	0.200	0.052	1,000 gal Art Garcia
	3/31/06	9:25	DC, AF	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
APRIL, 2006	4/1/06	9:10	DC	0.250	0.076	
	4/2/06	9:31	DC	0.200	0.052	
	4/3/06	8:30	LM	0.250	0.076	750 Gal Becky Berala 1,000 gal Vermejo Ranch
	4/4/06	8:21	LM	0.200	0.052	
	4/5/06	9:45	LM	0.200	0.052	
	4/6/06	9:01	DC, AF	0.200	0.052	
	4/7/06	8:19	DC, AF	0.250	0.076	
	4/8/06	8:23	DC	0.250	0.076	
	4/9/06	8:57	DC	0.200	0.052	
	4/10/06	8:25	DC, AF	0.250	0.076	
	4/11/06	8:17	DC, AF	0.300	0.1	
	4/12/06	9:30	DC, AF	0.250	0.076	
	4/13/06	9:21	DC, AF	0.250	0.076	
	4/14/06	9:17	DC, AF	0.200	0.052	
	4/15/06	10:21	AF	0.200	0.052	
	4/16/06	11:00	DC	0.200	0.052	
	4/17/06	10:15	DC, AF	0.250	0.076	
	4/18/06	9:23	DC, AF	0.300	0.1	
	4/19/06	9:15	DC, AF	0.200	0.052	
	4/20/06	9:01	DC, AF	0.250	0.076	
	4/21/06	11:21	DC, AF	0.200	0.052	
	4/22/06	8:31	DC, AF	0.200	0.052	
	4/23/06	10:11	DC, AF	0.200	0.052	
	4/24/06	9:30	DC, AF	0.250	0.076	
	4/25/06	14:15	DC, AF	0.200	0.052	
	4/26/06	10:01	DC	0.250	0.076	1,000 gal Vermejo Park
	4/27/06	9:27	DC	0.200	0.052	3,000 gal Vermejo Park
	4/28/06	9:30	DC	0.300	0.1	
	4/29/06	11:15	DC	0.250	0.076	
	4/30/06	11:21	DC	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
MAY, 2006	5/1/06	8:30	DC	0.200	0.052	
	5/2/06	8:35	DC	0.200	0.052	
	5/3/06	8:30	DC	0.200	0.052	
	5/4/06	8:20	DC	0.250	0.076	
	5/5/06	8:40	DC	0.200	0.052	
	5/6/06	8:30	DC	0.200	0.052	
	5/7/06	8:35	DC	0.250	0.076	
	5/8/06	8:35	DC	0.250	0.076	
	5/9/06	8:25	DC	0.200	0.052	
	5/10/06	8:25	DC	0.200	0.052	
	5/11/06	8:30	DC	0.250	0.076	
	5/12/06	8:25	DC	0.250	0.076	
	5/13/06	8:30	DC	0.200	0.052	
	5/14/06	8:30	DC	0.250	0.076	
	5/15/06	8:30	DC	0.250	0.076	
	5/16/06	8:35	DC	0.200	0.052	
	5/17/06	8:37	DC	0.200	0.052	
	5/18/06	8:30	DC	0.200	0.052	
	5/19/06	8:15	DC	0.250	0.076	
	5/20/06	8:20	DC	0.250	0.076	
	5/21/06	8:25	DC	0.200	0.052	
	5/22/06	8:25	DC	0.200	0.052	
	5/23/06	8:30	DC	0.200	0.052	
	5/24/06	8:35	DC	0.200	0.052	
	5/25/06	8:50	DC	0.150	0.034	
	5/26/06	8:45	DC	0.200	0.052	
	5/27/06	8:30	DC	0.200	0.052	
	5/28/06	8:35	DC	0.200	0.052	
	5/29/06	8:45	DC	0.200	0.052	
	5/30/06	8:45	DC	0.200	0.052	
	5/31/06	8:30	DC	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
JUNE, 2006	6/1/06	9:00	DC	0.200	0.052	
	6/2/06	9:10	DC	0.200	0.052	
	6/3/06	9:30	DC	0.150	0.034	
	6/4/06	8:10	DC	0.200	0.052	
	6/5/06	8:30	DC	0.200	0.052	
	6/6/06	8:45	DC	0.200	0.052	
	6/7/06	9:00	DC	0.250	0.076	
	6/8/06	9:05	DC	0.250	0.076	
	6/9/06	9:10	DC	0.200	0.052	
	6/10/06	9:00	DC	0.200	0.052	
	6/11/06	8:45	DC	0.250	0.076	
	6/12/06	8:30	DC	0.200	0.052	
	6/13/06	8:30	DC	0.200	0.052	
	6/14/06	8:15	DC	0.250	0.076	
	6/15/06	8:50	DC	0.150	0.034	
	6/16/06	9:00	DC	0.200	0.052	
	6/17/06	8:20	DC	0.250	0.076	
	6/18/06	9:30	DC	0.200	0.052	
	6/19/06	9:00	DC	0.200	0.052	
	6/20/06	8:45	DC	0.200	0.052	
	6/21/06	9:10	DC	0.200	0.052	
	6/22/06	9:10	DC	0.250	0.076	
	6/23/06	9:00	DC	0.250	0.076	
	6/24/06	8:15	DC	0.300	0.1	
	6/25/06	8:15	DC	0.300	0.1	
	6/26/06	8:25	DC	0.250	0.076	
	6/27/06	8:15	DC	0.250	0.076	
	6/28/06	8:40	DC	0.200	0.052	
	6/29/06	8:20	DC	0.250	0.076	
	6/30/06	8:30	DC	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
JULY, 2006	7/1/06	9:15	DC	0.300	0.1	
	7/2/06	9:00	DC	0.300	0.1	
	7/3/06	8:35	DC	0.250	0.076	
	7/4/06	10:00	DC	0.200	0.052	
	7/5/06	9:35	DC	0.300	0.1	
	7/6/06	9:00	DC	0.300	0.1	
	7/7/06	8:40	DC	0.250	0.076	
	7/8/06	10:00	DC	0.200	0.052	
	7/9/06	10:00	DC	0.200	0.052	
	7/10/06	8:30	LM	0.200	0.052	
	7/11/06	8:35	LM	0.200	0.052	
	7/12/06	8:20	LM	0.200	0.052	
	7/13/06	9:00	LM	0.250	0.076	
	7/14/06	8:25	LM	0.300	0.1	
	7/15/06	10:00	JS	0.250	0.076	
	7/16/06	9:30	JS	0.250	0.076	
	7/17/06	8:15	LM	0.200	0.052	
	7/18/06	8:25	LM	0.300	0.1	
	7/19/06	9:00	LM	0.200	0.052	
	7/20/06	10:45	LM	0.200	0.052	
	7/21/06	9:15	LM	0.200	0.052	
	7/22/06	9:00	JW	0.250	0.076	
	7/23/06	9:30	JW	0.200	0.052	
	7/24/06	8:40	LM	0.300	0.1	
	7/25/06	8:10	LM	0.300	0.1	
	7/26/06	9:20	LM	0.200	0.052	
	7/27/06	8:20	LM	0.250	0.076	
	7/28/06	10:00	LM	0.300	0.1	
	7/29/06	9:30	DC	0.200	0.052	
	7/30/06	9:00	DC	0.200	0.052	
	7/31/06	8:30	LM	0.300	0.1	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
AUGUST, 2006	8/1/06	9:00	LM	0.250	0.076	
	8/2/06	9:00	LM	0.200	0.052	
	8/3/06	9:30	LM	0.300	0.1	
	8/4/06	8:30	LM	0.250	0.076	
	8/5/06	10:00	JS	0.200	0.052	
	8/6/06	7:45	JS	0.200	0.052	
	8/7/06	8:30	LM	0.250	0.076	
	8/8/06	8:15	LM	0.300	0.1	
	8/9/06	9:00	LM	0.300	0.1	
	8/10/06	9:00	LM	0.200	0.052	
	8/11/06	9:15	LM	0.150	0.034	
	8/12/06	10:00	DC	0.200	0.052	
	8/13/06	9:00	DC	0.150	0.034	
	8/14/06	8:10	LM	0.200	0.052	
	8/15/06	9:30	LM	0.300	0.1	
	8/16/06	9:20	LM	0.300	0.1	
	8/17/06	8:15	LM	0.250	0.076	
	8/18/06	8:20	LM	0.200	0.052	
	8/19/06	10:00	JS	0.150	0.034	
	8/20/06	9:30	JS	0.200	0.052	
	8/21/06	8:10	LM	0.250	0.076	
	8/22/06	8:30	LM	0.250	0.076	
	8/23/06	8:30	LM	0.250	0.076	
	8/24/06	9:00	LM	0.200	0.052	
	8/25/06	9:00	LM	0.200	0.052	
	8/26/06	10:00	DC	0.150	0.034	
	8/27/06	9:20	DC	0.200	0.052	
	8/28/06	8:30	LM	0.250	0.076	2,000 gal,
	8/29/06	8:10	LM	0.250	0.076	
	8/30/06	8:15	LM	0.250	0.076	
	8/31/06	8:10	LM	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
SEPTEMBER, 2006	9/1/06	8:30	LM	0.200	0.052	
	9/2/06	8:00	DC	0.250	0.076	
	9/3/06	8:15	DC	0.250	0.076	
	9/4/06	9:10	LM	0.200	0.052	
	9/5/06	8:05	LM	0.200	0.052	
	9/6/06	8:30	LM	0.250	0.076	
	9/7/06	9:15	LM	0.250	0.076	
	9/8/06	8:20	LM	0.200	0.052	
	9/9/06	8:05	LM	0.300	0.100	
	9/10/06	8:10	LM	0.250	0.076	
	9/11/06	8:20	LM	0.250	0.076	
	9/12/06	9:00	LM	0.250	0.076	
	9/13/06	9:20	LM	0.200	0.052	
	9/14/06	9:10	LM	0.200	0.052	2000 Vermejo Park
	9/15/06	8:20	LM	0.200	0.052	
	9/16/06	8:30	JJ	0.200	0.052	
	9/17/06	9:00	JJ	0.300	0.100	
	9/18/06	9:00	LM	0.300	0.100	Discharged 0.15
	9/19/06	9:10	DC	0.200	0.052	Discharged 0.15
	9/20/06	9:15	DC	0.200	0.052	Discharged 0.15
	9/21/06	9:00	DC	0.250	0.076	Discharged 0.15
	9/22/06	8:35	DC	0.250	0.076	Discharged 0.15
	9/23/06	8:30	DC	0.250	0.076	Discharged 0.15
	9/24/06	8:25	DC	0.250	0.076	Discharged 0.15
	9/25/06	8:25	LM	0.200	0.052	Discharged 0.15
	9/26/06	8:30	LM	0.200	0.052	
	9/27/06	9:00	LM	0.300	0.100	1000 Ponil Camp Ground
	9/28/06	9:00	LM	0.250	0.076	1000 Patrick LeDoux
	9/29/06	9:15	LM	0.300	0.100	
	9/30/06	9:00	LM	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
OCTOBER, 2006	10/1/06	9:00	LM	0.200	0.052	
	10/2/06	9:00	LM	0.200	0.052	
	10/3/06	9:05	LM	0.250	0.076	
	10/4/06	9:10	LM	0.200	0.052	
	10/5/06	9:00	LM	0.150	0.034	
	10/6/06	9:30	DC	0.200	0.052	
	10/7/06	10:00	JJ	0.200	0.052	
	10/8/06	9:30	JJ	0.250	0.076	
	10/9/06	9:30	JJ	0.200	0.052	
	10/10/06	8:10	LM	0.250	0.076	
	10/11/06	8:15	LM	0.200	0.052	
	10/12/06	8:15	LM	0.200	0.052	
	10/13/06	8:20	LM	0.250	0.076	
	10/14/06	9:30	DC	0.200	0.052	
	10/15/06	9:30	DC	0.250	0.076	
	10/16/06	9:00	LM	0.200	0.052	
	10/17/06	9:20	DC / JS	0.200	0.052	
	10/18/06	9:10	DC / JS	0.200	0.052	
	10/19/06	9:00	DC / JS	0.250	0.076	
	10/20/06	9:10	DC / JS	0.200	0.052	
	10/21/06	9:30	JJ	0.150	0.034	
	10/22/06	9:15	DC	0.200	0.052	
	10/23/06	8:20	LM	0.200	0.052	
	10/24/06	8:20	LM	0.250	0.076	
	10/25/06	8:15	LM	0.200	0.052	
	10/26/06	8:15	LM	0.200	0.052	
	10/27/06	8:20	LM	0.300	0.076	
	10/28/06	9:30	JS	0.200	0.052	
	10/29/06	9:35	JS	0.200	0.052	
	10/30/06	8:10	LM	0.200	0.052	
	10/31/06	8:10	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
NOVEMBER, 2006	11/1/06	8:30	LM	0.250	0.076	
	11/2/06	8:30	LM	0.250	0.076	
	11/3/06	8:35	LM	0.250	0.076	
	11/4/06	8:30	LM	0.200	0.052	
	11/5/06	9:00	DC	0.200	0.052	
	11/6/06	8:20	LM	0.200	0.052	
	11/7/06	8:20	LM	0.250	0.076	
	11/8/06	8:25	LM	0.200	0.052	
	11/9/06	8:30	LM	0.200	0.052	
	11/10/06	8:30	LM	0.250	0.076	
	11/11/06	8:20	LM	0.200	0.052	
	11/12/06	8:10	LM	0.250	0.076	
	11/13/06	8:25	LM	0.250	0.076	
	11/14/06	8:25	LM	0.250	0.076	
	11/15/06	8:30	LM	0.200	0.052	
	11/16/06	8:30	LM	0.250	0.076	
	11/17/06	9:00	DCJS	0.250	0.076	
	11/18/06	9:00	JS	0.250	0.076	
	11/19/06	9:10	JS	0.200	0.052	
	11/20/06	8:35	LM	0.200	0.052	
	11/21/06	8:30	LM	0.250	0.076	
	11/22/06	8:30	LM	0.200	0.052	
	11/23/06	9:30	JS	0.250	0.076	
	11/24/06	9:20	DC	0.250	0.076	
	11/25/06	9:30	DC	0.200	0.052	
	11/26/06	10:00	DC	0.250	0.076	
	11/27/06	9:00	LM	0.250	0.076	
	11/28/06	8:15	LM	0.250	0.076	
	11/29/06	8:30	LM	0.200	0.052	
	11/30/06	8:30	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
DECEMBER, 2006	12/1/06	8:01	LM	0.200	0.052	
	12/2/06	8:10	LM	0.150	0.034	
	12/3/06	8:10	LM	0.150	0.034	
	12/4/06	8:20	LM	0.200	0.052	
	12/5/06	8:15	LM	0.200	0.052	
	12/6/06	8:20	LM	0.200	0.052	
	12/7/06	8:30	LM	0.250	0.076	
	12/8/06	8:30	LM	0.200	0.052	
	12/9/06	8:28	JS	0.250	0.076	
	12/10/06	8:30	JS	0.250	0.076	
	12/11/06	8:20	LM	0.200	0.052	
	12/12/06	8:15	LM	0.150	0.034	
	12/13/06	8:20	LM	0.200	0.052	
	12/14/06	8:15	LM	0.250	0.076	
	12/15/06	8:25	LM	0.250	0.076	
	12/16/06	8:30	DC	0.300	0.100	
	12/17/06	8:18	DC	0.250	0.076	
	12/18/06	8:30	LM	0.200	0.052	
	12/19/06	8:36	LM	0.250	0.076	
	12/20/06	8:05	LM	0.250	0.076	
	12/21/06	8:00	LM	0.200	0.052	
	12/22/06	8:15	LM	0.200	0.052	
	12/23/06	8:30	LM	0.250	0.076	
	12/24/06	8:20	LM	0.200	0.052	
	12/25/06	8:21	LM	0.200	0.052	
	12/26/06	8:30	LM	0.200	0.052	
	12/27/06	8:05	LM	0.250	0.076	
	12/28/06	8:30	LM	0.300	0.100	
	12/29/06	8:30	LM	0.300	0.100	
	12/30/06	8:20	JS	0.250	0.076	
	12/31/06	8:05	JS	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
JANUARY, 2007	1/1/07	8:05	LM	0.300	0.100	
	1/2/07	8:05	LM	0.300	0.100	
	1/3/07	9:00	LM	0.250	0.076	
	1/4/07	8:55	LM	0.200	0.052	
	1/5/07	9:00	LM	0.250	0.076	
	1/6/07	8:10	DC	0.200	0.052	
	1/7/07	8:15	DC	0.200	0.052	
	1/8/07	8:10	LM	0.300	0.100	
	1/9/07	8:15	LM	0.300	0.100	
	1/10/07	8:15	LM	0.250	0.076	
	1/11/07	8:30	LM	0.200	0.052	
	1/12/07	8:35	LM	0.200	0.052	
	1/13/07	8:10	LM	0.200	0.052	
	1/14/07	8:20	LM	0.200	0.052	
	1/15/07	8:25	LM	0.250	0.076	
	1/16/07	8:15	LM	0.200	0.052	
	1/17/07	8:11	LM	0.250	0.076	
	1/18/07	8:16	LM	0.200	0.052	
	1/19/07	8:22	LM	0.250	0.076	
	1/20/07	8:15	JS	0.300	0.100	
	1/21/07	8:20	JS	0.300	0.100	
	1/22/07	8:20	LM	0.250	0.076	
	1/23/07	8:15	LM	0.200	0.052	
	1/24/07	8:26	LM	0.250	0.076	
	1/25/07	8:30	LM	0.200	0.052	
	1/26/07	8:15	LM	0.250	0.076	
	1/27/07	8:20	DC	0.300	0.100	
	1/28/07	8:21	DC	0.300	0.100	
	1/29/07	8:08	LM	0.250	0.076	
	1/30/07	8:15	LM	0.250	0.076	
	1/31/07	8:26	LM	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
FEBRUARY, 2007	2/1/07	9:00	LM	0.200	0.052	
	2/2/07	8:30	LM	0.200	0.052	
	2/3/07	8:30	LM	0.200	0.052	
	2/4/07	8:20	LM	0.250	0.076	
	2/5/07	8:10	LM	0.250	0.076	
	2/6/07	8:15	LM	0.250	0.076	
	2/7/07	8:30	LM	0.200	0.052	
	2/8/07	8:15	LM	0.200	0.052	
	2/9/07	8:20	LM	0.150	0.034	
	2/10/07	8:36	LM	0.200	0.052	
	2/11/07	9:00	LM	0.250	0.076	
	2/12/07	9:10	LM	0.250	0.076	
	2/13/07	8:15	LM	0.250	0.076	
	2/14/07	8:20	LM	0.300	0.100	
	2/15/07	8:22	LM	0.300	0.100	
	2/16/07	8:18	LM	0.300	0.100	
	2/17/07	8:20	LM	0.250	0.076	
	2/18/07	8:16	LM	0.250	0.076	
	2/19/07	8:15	LM	0.250	0.076	
	2/20/07	8:20	LM	0.200	0.052	
	2/21/07	8:26	LM	0.250	0.076	
	2/22/07	8:20	LM	0.200	0.052	
	2/23/07	8:25	LM	0.300	0.100	
	2/24/07	8:15	LM	0.200	0.052	
	2/25/07	8:30	LM	0.250	0.076	
	2/26/07	8:30	LM	0.250	0.076	
	2/27/07	8:20	LM	0.200	0.052	
	2/28/07	8:15	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
MARCH, 2007	3/1/07	8:30	LM	0.200	0.052	
	3/2/07	8:30	LM	0.200	0.052	
	3/3/07	9:00	DC	0.250	0.076	
	3/4/07	9:00	DC	0.250	0.076	
	3/5/07	8:30	LM	0.200	0.052	
	3/6/07	8:45	LM	0.200	0.052	
	3/7/07	8:30	LM	0.200	0.052	
	3/8/07	8:25	LM	0.200	0.052	
	3/9/07	8:25	LM	0.250	0.076	
	3/10/07	8:30	LM	0.200	0.052	
	3/11/07	8:25	LM	0.300	0.1	
	3/12/07	8:30	LM	0.200	0.052	
	3/13/07	8:30	LM	0.200	0.052	
	3/14/07	8:33	LM	0.200	0.052	L.A. Whitten, 1,000 gal.
	3/15/07	8:20	LM	0.200	0.052	
	3/16/07	9:00	DC	0.150	0.034	
	3/17/07	9:00	DC	0.300	0.1	
	3/18/07	9:00	DC	0.250	0.076	
	3/19/07	8:40	LM	0.200	0.052	Whitten, 2,000 gal.
	3/20/07	8:30	LM	0.250	0.076	
	3/21/07	8:25	LM	0.250	0.076	
	3/22/07	8:30	LM	0.200	0.052	
	3/23/07	8:30	LM	0.200	0.052	
	3/24/07	8:30	LM	0.200	0.052	
	3/25/07	9:26	LM	0.150	0.034	
	3/26/07	8:20	LM	0.200	0.052	Vermejo 1,000 gal
	3/27/07	8:20	LM	0.200	0.052	
	3/28/07	8:30	LM	0.250	0.076	
	3/29/07	8:15	LM	0.250	0.076	1,000 gal Ron Welch
	3/30/07	9:00	DC	0.250	0.076	
	3/31/07	9:15	DC	0.250	0.076	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
APRIL, 2007	4/1/07	8:50	LM	0.200	0.052	
	4/2/07	9:00	LM	0.200	0.052	
	4/3/07	8:30	LM	0.200	0.052	
	4/4/07	8:30	LM	0.200	0.052	
	4/5/07	8:25	LM	0.200	0.052	
	4/6/07	8:30	LM	0.200	0.052	
	4/7/07	8:35	LM	0.200	0.052	
	4/8/07	9:00	LM	0.250	0.076	
	4/9/07	9:05	LM	0.250	0.076	
	4/10/07	8:30	LM	0.200	0.052	
	4/11/07	8:30	LM	0.200	0.052	
	4/12/07	8:20	LM	0.200	0.052	
	4/13/07	9:00	DC	0.200	0.052	
	4/14/07	9:00	DC	0.300	0.1	
	4/15/07	9:00	DC	0.200	0.052	
	4/16/07	8:30	LM	0.200	0.052	
	4/17/07	8:25	LM	0.250	0.076	
	4/18/07	8:45	LM	0.200	0.052	
	4/19/07	8:40	LM	0.200	0.052	
	4/20/07	8:45	LM	0.300	0.1	
	4/21/07	8:20	LM	0.300	0.1	
	4/22/07	9:30	LM	0.300	0.1	
	4/23/07	8:20	LM	0.200	0.052	
	4/24/07	8:15	LM	0.200	0.052	
	4/25/07	8:30	LM	0.200	0.052	
	4/26/07	8:35	LM	0.200	0.052	Vermejo Park 1,000 gal
	4/27/07	8:20	DC	0.250	0.076	Vermejo Ranch 3,000 gal
	4/28/07	9:00	DC	0.250	0.076	
	4/29/07	9:00	DC	0.300	0.1	
	4/30/07	8:45	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
MAY, 2007	5/1/07	8:05	LM	0.200	0.052	
	5/2/07	8:05	LM	0.200	0.052	
	5/3/07	9:00	LM	0.300	0.1	
	5/4/07	9:00	LM	0.300	0.1	
	5/5/07	8:20	LM	0.200	0.052	
	5/6/07	8:20	LM	0.250	0.076	
	5/7/07	8:25	LM	0.200	0.052	
	5/8/07	8:45	LM	0.200	0.052	
	5/9/07	9:00	LM	0.200	0.052	
	5/10/07	8:22	DC	0.200	0.052	
	5/11/07	8:30	DC	0.250	0.076	
	5/12/07	9:00	DC	0.250	0.076	
	5/13/07	9:00	DC	0.300	0.1	
	5/14/07	8:20	LM	0.250	0.076	
	5/15/07	8:30	LM	0.250	0.076	
	5/16/07	8:30	LM	0.250	0.076	
	5/17/07	8:30	LM	0.200	0.052	
	5/18/07	8:45	LM	0.200	0.052	
	5/19/07	8:17	LM	0.200	0.052	
	5/20/07	8:30	LM	0.200	0.052	
	5/21/07	9:00	LM	0.250	0.076	
	5/22/07	9:00	LM	0.200	0.052	
	5/23/07	8:45	LM	0.150	0.034	
	5/24/07	8:20	LM	0.200	0.052	
	5/25/07	9:00	DC	0.200	0.052	
	5/26/07	9:05	DC	0.300	0.1	
	5/27/07	9:00	DC	0.250	0.076	
	5/28/07	9:20	LM	0.200	0.052	
	5/29/07	8:30	LM	0.200	0.052	
	5/30/07	8:30	LM	0.200	0.052	
	5/31/07	8:30	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
JULY, 2007	7/1/07	8:30	LM	0.200	0.052	
	7/2/07	8:30	LM	0.200	0.052	
	7/3/07	9:00	LM	0.200	0.052	
	7/4/07	9:30	DC	0.150	0.034	
	7/5/07	10:00	DC	0.150	0.034	
	7/6/07	8:40	LM	0.200	0.052	
	7/7/07	9:00	JS	0.250	0.076	
	7/8/07	9:10	JS	0.250	0.076	
	7/9/07	9:00	LM	0.200	0.052	
	7/10/07	8:15	LM	0.250	0.076	
	7/11/07	8:00	LM	0.200	0.052	
	7/12/07	8:45	LM	0.200	0.052	
	7/13/07	9:00	LM	0.200	0.052	
	7/14/07	8:40	LM	0.200	0.052	
	7/15/07	8:30	LM	0.200	0.052	
	7/16/07	8:30	LM	0.200	0.052	
	7/17/07	8:30	LM	0.200	0.052	
	7/18/07	8:30	LM	0.200	0.052	
	7/19/07	8:10	LM	0.250	0.076	
	7/20/07	9:00	DC	0.300	0.1	
	7/21/07	9:15	DC	0.300	0.1	
	7/22/07	9:00	DC	0.250	0.076	
	7/23/07	8:30	LM	0.200	0.052	
	7/24/07	8:35	LM	0.200	0.052	
	7/25/07	8:35	LM	0.200	0.052	
	7/26/07	8:30	LM	0.200	0.052	
	7/27/07	8:30	LM	0.200	0.052	
	7/28/07	9:15	JS	0.250	0.076	
	7/29/07	10:00	JS	0.150	0.034	
	7/30/07	8:30	LM	0.200	0.052	
	7/31/07	8:30	LM	0.200	0.052	

MONTHLY WASTEWATER REPORT / MILLION GAL. per DAY

	DATE	TIME	INITIAL	INLET (ft)	MGD	SEWAGE LOADS DUMPED
AUG., 2007	8/1/07	8:30	LM	0.200	0.052	
	8/2/07	8:05	LM	0.200	0.052	
	8/3/07	8:00	LM	0.250	0.076	
	8/4/07	8:15	LM	0.200	0.052	
	8/5/07	8:15	LM	0.200	0.052	
	8/6/07	8:18	LM	0.200	0.052	
	8/7/07	8:30	LM	0.200	0.052	
	8/8/07	9:00	LM	0.200	0.052	
	8/9/07	9:00	LM	0.200	0.052	
	8/10/07	9:00	DC/JM	0.300	0.1	
	8/11/07	9:10	DC	0.250	0.076	
	8/12/07	9:00	DC	0.250	0.076	
	8/13/07	8:30	LM	0.250	0.076	
	8/14/07	8:30	LM	0.250	0.076	
	8/15/07	8:20	LM	0.200	0.052	
	8/16/07	8:20	LM	0.200	0.052	
	8/17/07	8:30	LMJS	0.200	0.052	
	8/18/07	9:00	JS	0.250	0.076	
	8/19/07	9:30	JS	0.250	0.076	
	8/20/07	8:00	LM	0.200	0.052	
	8/21/07	8:30	LM	0.200	0.052	
	8/22/07	8:35	LM	0.200	0.052	
	8/23/07	8:35	LM	0.200	0.052	
	8/24/07	8:30	LM	0.200	0.052	
	8/25/07	8:15	LM	0.200	0.052	
	8/26/07	8:00	LM	0.200	0.052	
	8/27/07	8:00	LM	0.200	0.052	
	8/28/07	7:45	LM	0.250	0.076	
	8/29/07	8:00	LM	0.200	0.052	
	8/30/07	8:10	LM	0.200	0.052	
	8/31/07	8:15	LM	0.200	0.052	

Operational Plan

1. The Village of Cimarron is authorized to discharge up to 175,000 gpd of domestic wastewater from the village. Wastewater is conveyed by either gravity flow or force main to two concrete-lined facultative lagoons, which are connected in parallel. Periodically, domestic septage pumped from septic tanks is also discharged to the lagoons. Wastewater is allowed to evaporate in the lagoons, and, as a contingency, is discharged through sand filters to French Lake, an irrigation lake. Water from the lake is used to irrigate cropland seeded with alfalfa.
2. The Village of Cimarron shall accept domestic septage in accordance with the Village of Cimarron Solids Management Plan. The Village of Cimarron shall record for each discharge of domestic septage to the lagoons the following information: the date of discharge, the name of residence owner or name of business served, the address of residence or business served, total volume discharged, and the disposal location, i.e. Lagoon #1 (west lagoon) or Lagoon #2 (east lagoon).

The reason for this condition is to comply with WQCC Regulation 20.6.2.3109.

3. The Village of Cimarron shall maintain a minimum of two feet of freeboard in each of the two lagoons at all times. In the event that a minimum of two feet of freeboard can not be maintained at all times, the Village of Cimarron shall submit a corrective action plan to manage discharge volumes to the NMED for approval.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3107.

4. The Village of Cimarron shall measure the thickness of the sludge blanket in each lagoon every five years. The initial measurements shall be performed and submitted to NMED within one year of receipt of this permit. When sludge accumulation exceeds 1/3 of the total depth of either lagoon, the Village of Cimarron shall remove the sludge in a manner which is protective of the lagoon liner. Removed sludge shall be contained, transported, and disposed in accordance with all local, state, and federal (40 CFR Part 503) regulations.

Enforcement

Failure to grant the Secretary or his authorized representative access to the records required to be kept by this discharge plan or to allow an inspection of the discharge facilities or to the collection of samples is a violation of this discharge plan and the WQCC Regulations. Such violations as well as other violations of the discharge plan, may subject the discharger to a compliance order, a compliance order assessing a civil penalty or an action in district court pursuant to § 74-6-10 NMSA 1978, and/or modification or termination of this discharge plan pursuant to § 74-6-5.L NMSA 1978. Penalties assessed as part of a compliance order shall not exceed \$15,000 per day for violations of the terms of this permit or the requirements of § 74-6-5 NMSA 1978, and shall not exceed \$10,000 per day for violations of other sections of the Water Quality Act.

Modifications and/or Amendments

The discharger shall notify NMED, pursuant to WQCC Regs. 20.6.2.3107.C, of any modifications or additions to the Cimarron WWTP, including any increase in wastewater flow rate or wastewater storage and disposal management changes to the system as approved under this discharge plan. The discharger shall obtain NMED's approval, as a discharge plan modification, prior to any increase in the quantity or concentration of constituents in the leachate above those approved in this plan. Please note that WQCC Regs. 20.6.2.3109.E and F provide for possible future amendment of the plan.

Other Requirements

Please be advised that the approval of this plan does not relieve the Village of Cimarron of liability should your operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations.

RIGHT TO APPEAL

If Mayor Gonzales is dissatisfied with this action taken by NMED, Mayor Gonzales may file a petition for hearing before the WQCC. This petition shall be in writing to the Water Quality Control Commission within thirty (30) days of the receipt of this letter. Unless a timely request for hearing is made, the decision of the NMED shall be final.

TRANSFER OF DISCHARGE PLAN

Pursuant to WQCC Regulation 20.6.2.3111, prior to any transfer of ownership, the discharger shall provide the transferee a copy of the discharge plan, including a copy of this approval letter and shall document such to the NMED.

Monitoring and Reporting

Monitoring and reporting shall be as specified in the discharge plan and supplements thereto. These requirements are summarized on the attached sheet(s). Any inadvertent omissions from this summary of a discharge plan monitoring or reporting requirement shall not relieve you of responsibility for compliance with that requirement.

Record Keeping

1. The discharger shall maintain at the facility, a written record of ground water and wastewater quality analyses.

The following information shall be recorded and shall be made available to the NMED upon request.

- a. The dates, exact place and times of sampling or field measurements.
- b. The name and job title of the individuals who performed the sampling or measurements.
- c. The dates the analyses were performed.
- d. The name and job title of the individuals who performed the analyses.
- e. The analytical techniques or methods used.
- f. The results of such analyses, and
- g. The results of any split sampling, spikes or repeat sampling.

2. The discharger shall maintain a written record of any spills, seeps, and/or leaks of effluent, leachate and/or process fluids not authorized by this discharge plan.

3. The discharger shall maintain a written record of the operation, maintenance and repair of facilities/equipment used to treat, store and/or dispose of wastewater; to measure flow rates; and/or to monitor water quality. This will include repairs, replacement or calibration of any monitoring equipment and repairs or replacement of any equipment used in the Cimarron WWTP.

4. The discharger shall maintain a written record of the Village of Cimarron's public water supply usage.

Inspection and Entry

In accordance with § 74-6-9.B & E NMSA 1978 and WQCC Regulation 20.6.2.3107.D, the discharger shall allow the Secretary or his authorized representative; upon the presentation of credentials, to:

1. Enter at regular business hours or at other reasonable times upon the discharger's premises or where records must be kept under the conditions of this discharge plan.
2. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of the discharge plan.
3. Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment), practices or operations regulated or required under this discharge plan.
4. Sample or monitor, at reasonable times for the purpose of assuring discharge plan compliance or as otherwise authorized by the New Mexico Water Quality Act, any effluent at any location before or after discharge.

Duty to Provide Information

In accordance with § 74-6-9.B NMSA 1978 and WQCC Regulation 20.6.2.3107.D, the discharger shall furnish to the NMED, within a reasonable time, any relevant information which it may request to determine whether cause exists for modifying, terminating and/or renewing this discharge plan or to determine compliance with this plan. The discharger shall furnish to the NMED, upon request, copies of records required to be kept by this discharge plan.

Spills, Leaks and Other Unauthorized Discharges

This approval authorizes only those discharges specified in the discharge plan. Any unauthorized discharges violate WQCC Regulation 20.6.2.3104, and must be reported to the NMED and remediated as required by WQCC Regulation 20.6.2.1203. This requirement applies to all seeps, spills, and/or leaks discovered from the lift station, conveyance lines, lagoons and sand filters.

Retention of Records

The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this discharge plan, and records of all data used to complete the application for this discharge plan, for a period of at least five years from the date of the sample collection, measurement, report or application. This period may be extended by request of the Secretary at any time.

Contingency Plan

12. In the event that ground water standards are exceeded during the term of the discharge permit, upon closure of the permitted facility or during post-closure monitoring, the Village of Cimarron shall collect a confirmatory sample from the monitoring wells within 15 days to confirm the initial sample results. Within 30 days of confirmation of ground water contamination, the Village of Cimarron shall submit a corrective action plan to NMED. The corrective action plan shall include a site investigation to define the source, nature and extent of contamination and a proposed abatement option. The site investigation and abatement option shall be consistent with the requirements and provisions of sections 20.6.2.4101, 20.6.2.4103, 20.6.2.4106, 20.6.2.4107, and 20.6.2.4112 of the Water Quality Control Commission Regulations. The corrective action plan shall also provide appropriate source control measures for the domestic waste including but not limited to improvements in the wastewater treatment system such as the installation of an advanced treatment system. The corrective action plan shall be implemented within 30 days of NMED approval.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3107.A.10 by providing a contingency plan to address potential impacts to ground water quality.

13. In the event of an effluent spill or release that is not prescribed under the approved discharge plan, the Village of Cimarron shall initiate the notification and corrective actions as required in WQCC Regulation 20.6.2.1203. Within 24 hours of the incident, the Village of Cimarron shall verbally notify NMED and provide the information outlined in WQCC Regulation 20.6.2.1203.A.1. Within seven days of discovering the incident, a written report shall be submitted verifying the oral notification and providing any additional pertinent information or changes. Within 15 days of the incident, the Village of Cimarron shall submit a corrective action report describing actions taken and/or to be taken to remedy the impact of the spill.

The reason for this condition is to comply with WQCC Regulation 20.6.2.1203 and 20.6.2.3107.A.10 by providing a corrective action response to address unauthorized releases.

14. Pursuant to WQCC Regulation 20.6.2.3109, NMED reserves the right to modify permit requirements in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of 20.6.2.3103 are being or may be violated. This may include a determination that structural controls and/or management practices approved under the discharge permit for Cimarron WWTP are not protective of ground water quality, and that more stringent requirements to protect and/or remediate ground water quality may be required by NMED. These requirements may include re-lining lagoons, expanding land application/disposal areas, changing waste storage or land application/disposal management practices, and/or implementing remediation systems.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3109 by ensuring that protective measures put in place perform the task of protecting ground water quality.

Closure Plan

15. Upon closure of the wastewater treatment and disposal facility, the Village of Cimarron shall perform the following closure measures:
- A. Remove or plug all lines leading to the lagoons, sand filters and French Lake so that a discharge to the lagoons, sand filters, and French Lake can no longer occur.
 - B. Drain and/or evaporate all liquids from the lagoons and sand filters, and dispose of all sludge in accordance with all local, state, and federal (40 CFR Part 503) regulations.
 - C. Perforate the concrete liners, backfill the lagoons and sand filters with clean fill, and re-grade the site to minimize surface infiltration.
 - D. Perform post-closure monitoring, which shall include continuation of quarterly ground water monitoring as described in Condition No. 11 above until monitoring results indicate that ground water quality at the site meets the WQCC Regulation 20.6.2.3103 standards for four consecutive quarterly sampling events.
 - E. If post-closure monitoring shows ground water contaminants above the WQCC Regulation 20.6.2.3103 standards, the Village of Cimarron shall implement Condition No. 12 of the Contingency Plan
 - F. Once the NMED agrees that post-closure monitoring may cease, the Village of Cimarron shall plug and abandon all monitor wells in accordance with the NMED GWPPS Monitoring Well Construction and Abandonment Guidelines (copy enclosed).
 - G. Once the NMED agrees that all post-closure requirements have been met, the Village of Cimarron may request to terminate the discharge plan.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3107.A.11. By providing a closure plan to address potential impacts to ground water quality after the facility is closed.

GENERAL DISCHARGE PLAN REQUIREMENTS

In addition to any other requirements provided by law, approval of discharge plan, DP-1252, is subject to the following general requirements:

The reason for this condition is to comply with WQCC Regulation 20.6.2.3109 by providing for removal of solids from the wastewater treatment system.

5. The Village of Cimarron shall install and maintain fences around the entire wastewater treatment and disposal facility which are constructed in a manner which shall prevent access by children and dogs (e.g., field/woven fencing, chain link fencing). The Village of Cimarron shall post signs at the facility entrance and other areas where public contact is likely which indicate that the water is not potable.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3109.

6. The Village of Cimarron shall perform visual inspection of the lagoons and surrounding berms on a monthly basis. The water surface of the lagoons shall be kept free of floating plants and debris. Berms surrounding the lagoons shall be kept free of all "deep-rooted" plants.

The reason for this condition is to comply with WQCC Regulations 20.6.2.3106 and 20.6.2.3109 by preventing contaminated wastewater from moving directly or indirectly into ground water.

Monitoring Plan

7. The Village of Cimarron shall measure the monthly wastewater discharge volume using a parshall flume located at the inlet to the lagoons. The Village of Cimarron shall submit to NMED within 90 days of receipt of this permit a schedule for reading the parshall flume.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3107.A.1 and 20.6.2.3109.H by providing a method of flow measurement.

8. The Village of Cimarron shall keep a record of when effluent is discharged from the Cimarron WWTP to French Lake. The log shall include the dates of the discharge and source of the discharge (Lagoon #1 or Lagoon #2).

The reason for this condition is to comply with WQCC Regulation 20.6.2.3106 and 20.6.2.3109.

9. The Village of Cimarron shall install three monitoring wells: one well (MW-1) located downgradient of Lagoon #1 (west lagoon), one well (MW-2) located downgradient of Lagoon #2 (east lagoon) and one well located upgradient of the lagoons within one year of the date of this permit. Locations of the wells shall be approved by NMED prior to installation. The wells shall be completed according to NMED GWPPS Monitoring Well Construction and Abandonment Guidelines (copy enclosed).

The reason for this condition is to comply with WQCC Regulation 20.6.2.3107 by providing adequate monitoring of ground water quality.

10. The Village of Cimarron shall survey all monitoring wells to a common permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot. One of the monitoring wells may be used as the benchmark. The data shall be submitted to NMED within 60 days of the installation of the three monitoring wells as required in Condition No. 9 above.

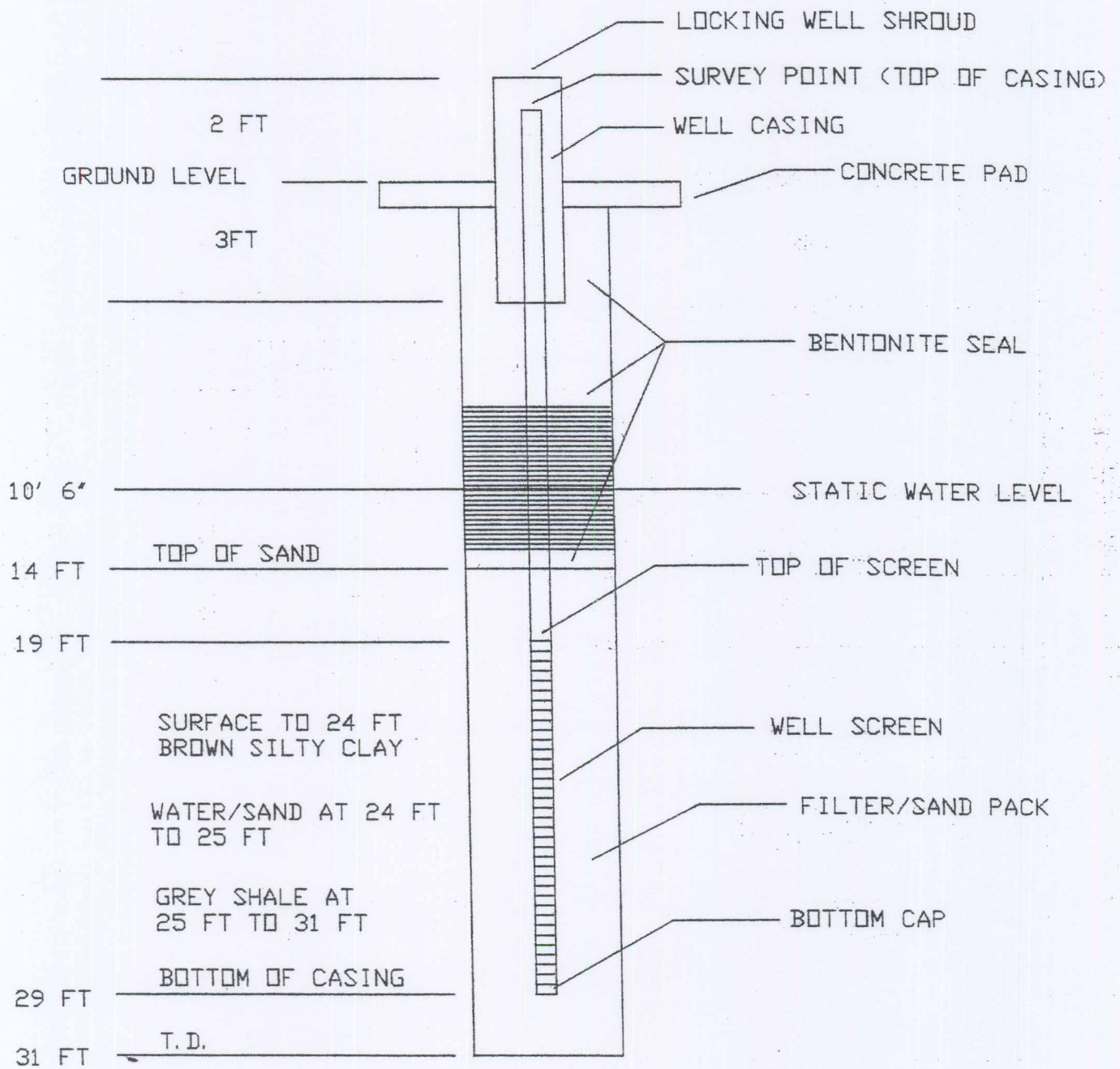
The reason for this condition is to comply with WQCC Regulation 20.6.2.3107 by providing a method to determine ground water depth and flow direction.

11. The Village of Cimarron shall submit quarterly monitoring reports which include the following information:

- A. Monthly wastewater discharge volumes to lagoons measured with a parshall flume.
- B. Log of effluent discharge to French Lake.
- C. Quarterly analytical results of an effluent sample collected from one of the two lagoons for nitrate as nitrogen ($\text{NO}_3\text{-N}$), total Kjeldahl nitrogen (TKN), total dissolved solids (TDS), and chloride (Cl). The Village of Cimarron shall alternate between the two lagoons for sample collection.
- D. Quarterly analytical results of a water sample collected from French Lake for $\text{NO}_3\text{-N}$ and TKN. The sample location, subject to NMED approval, shall be representative of the water used for irrigation of the cropland.
- E. Manifests showing discharge of septage into the lagoons.
- F. Manifests showing pumping and disposal of solids from the lagoons.
- G. Water levels in the monitor wells to the nearest hundredth of a foot, measured prior to purging and sampling.
- H. Quarterly analytical results of ground water samples collected from three monitoring wells for $\text{NO}_3\text{-N}$, TKN, Cl, and TDS.

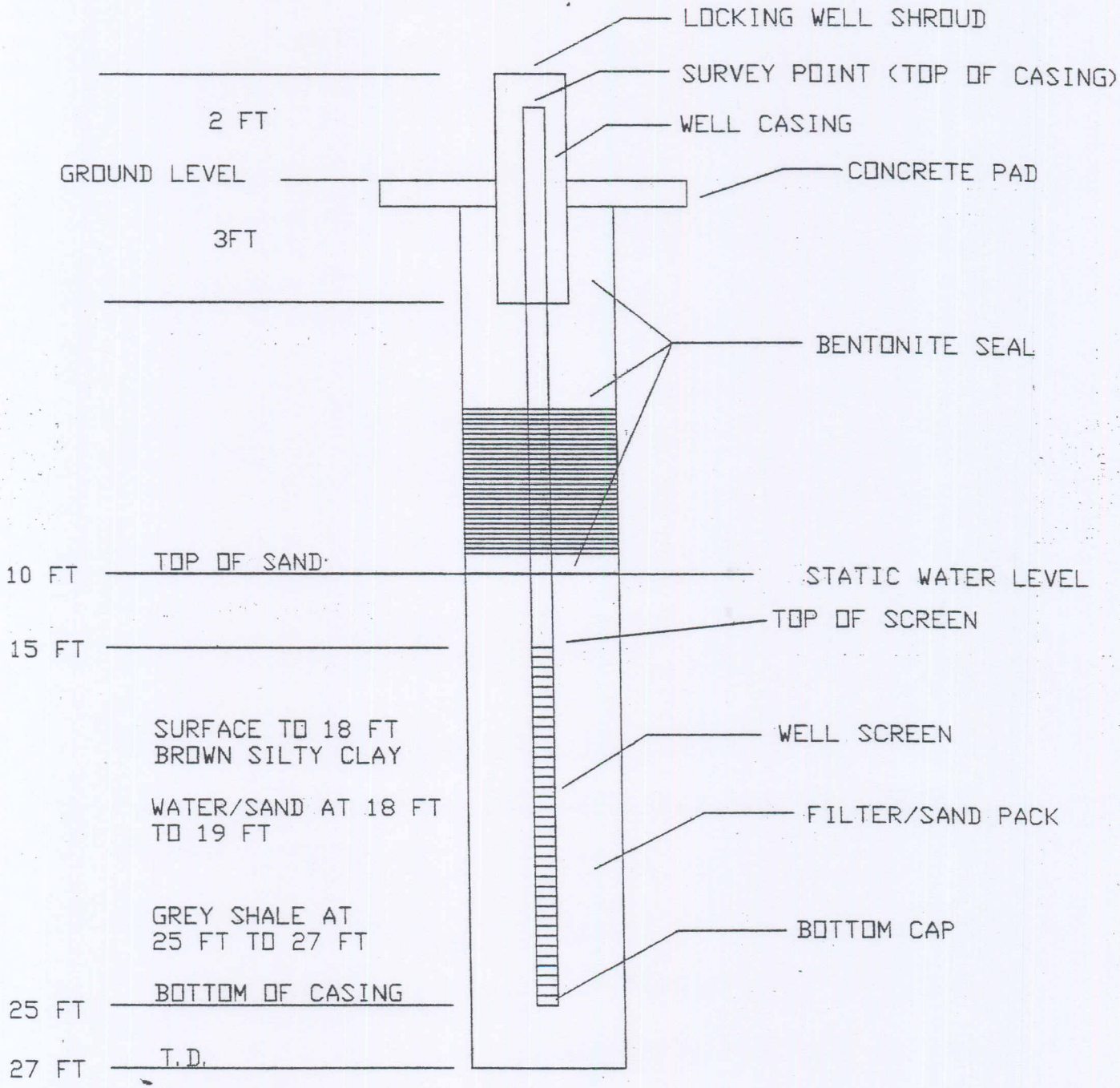
Quarterly monitoring reports shall be submitted to NMED by February 28, May 31, August 31, and November 30 of each year.

The reason for this condition is to comply with WQCC Regulation 20.6.2.3107 by providing monitoring of effluent and ground water.



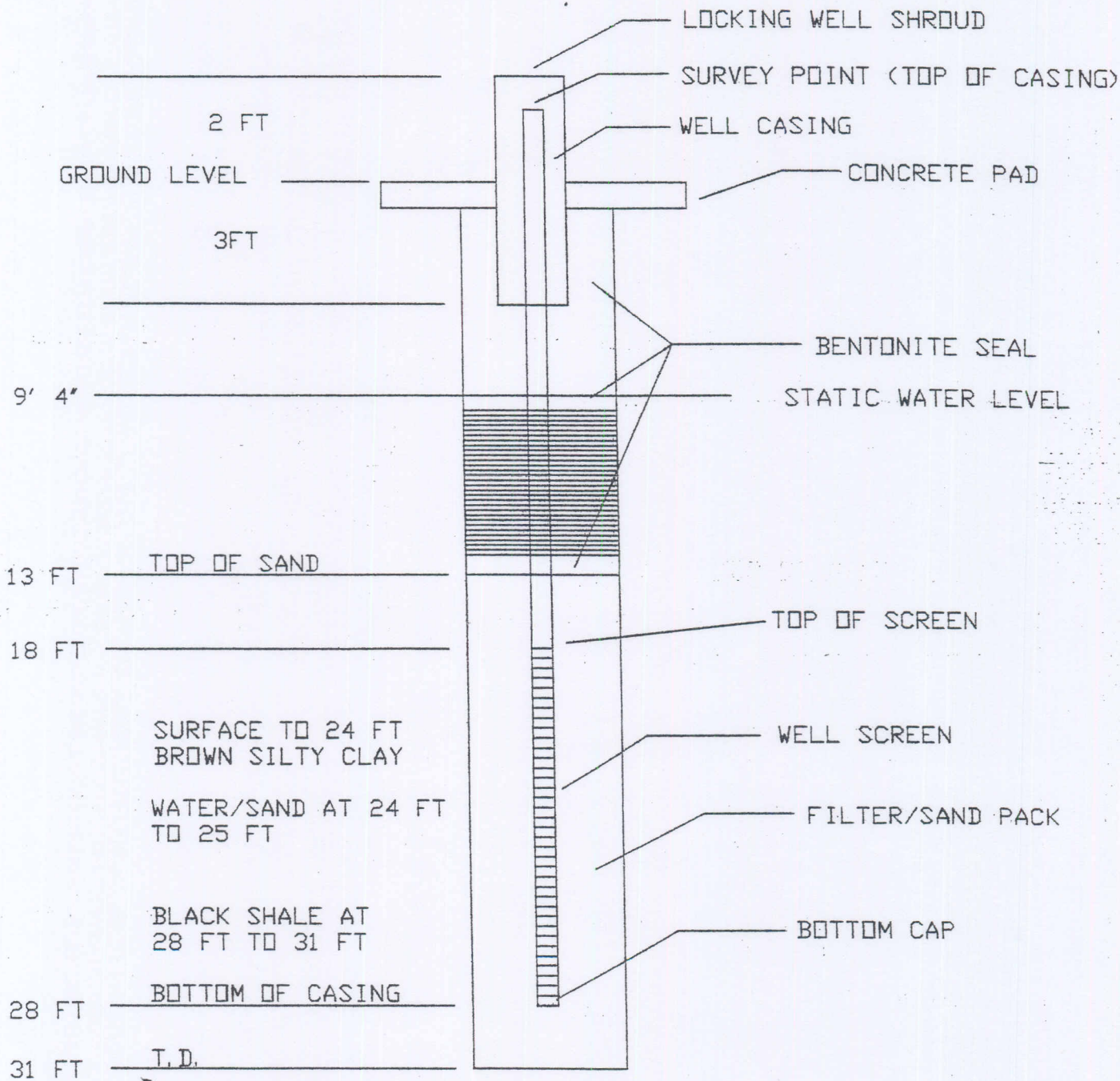
SOUTH WELL

NOT TO SCALE



WEST WELL

NOT TO SCALE



EAST WELL

NOT TO SCALE

**Discharge Permit Monitoring Summary
CIMARRON WWTP DP-1252**

Monitoring Report Due Dates

Monitoring Reports are due each year by

28-FEB, 31-MAY, 31-AUG, 30-NOV

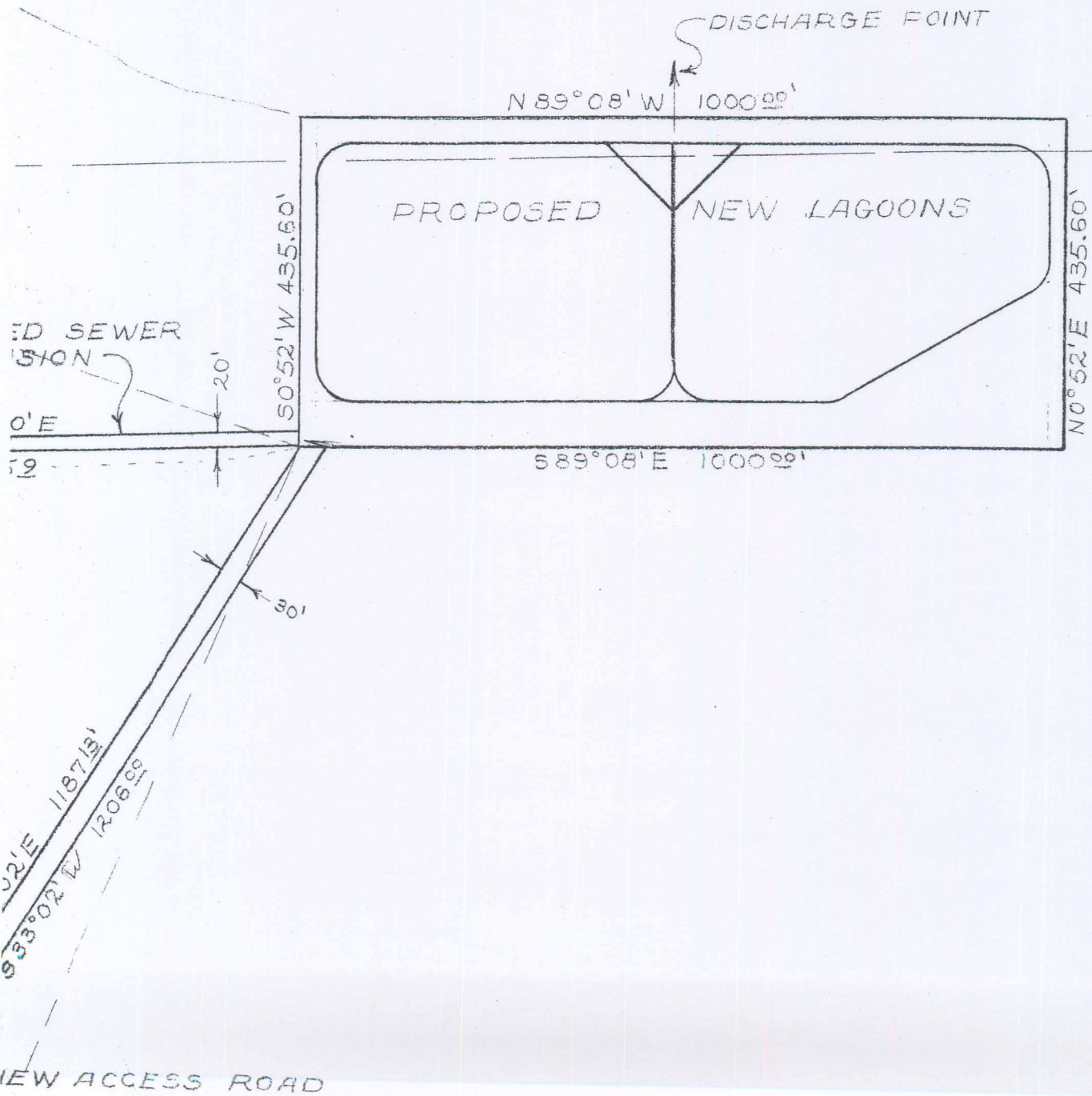
Monitoring Requirements

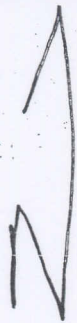
The following summarizes the monitoring requirements for this facility:

Annual Reporting Frequency	Number of Sites	Sampling Description
4	3	Measure depth to water in 3 monitoring wells quarterly
4	2	Analyze quarterly for Chloride in mon. wells and effluent from one lagoon (alternate between lagoons)
4	5	Analyze quarterly for NO3-N and TKN in mon. wells, in effluent from one lagoon (alternate between lagoons), and in French Lake
4	1	Measure monthly volume of wastewater discharged to lagoons
4	1	Log of when effluent is discharged to French Lake, submitted quarterly
4	4	Analyze quarterly for TDS in mon. wells and effluent from one lagoon (alternate between lagoons)
1	2	Manifests of solids removed from lagoons, submitted quarterly
4	2	Manifests of domestic sewage discharged to lagoons, submitted quarterly

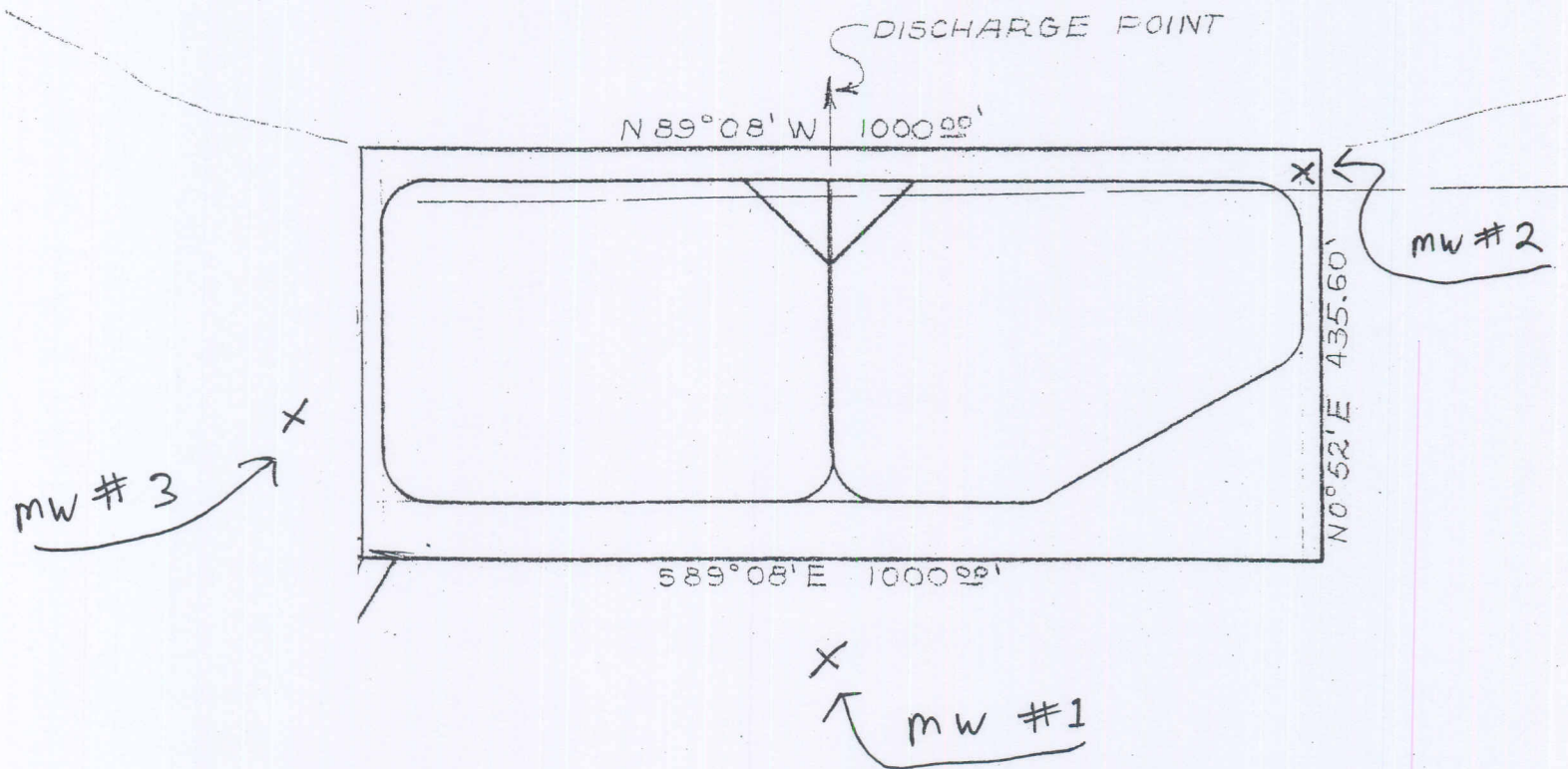
Submit all monitoring reports to the Ground Water Quality Bureau at the address on the Discharge Plan Summary Sheet

FRENCH LAKE





FRENCH LAKE



Proposed sites for monitoring wells. # 1 is upgradient of both lagoons. # 2 is down gradient of the E. lagoon

3 is as near as possible to down gradient of W. lagoon.

Placing # 3 directly N. of lagoons will place them in French

Placing # 3 further N. will cause it to be in a low lying area that the lake backs up into

NEW ACCESS ROAD

