



**Request for Proposal
RFP-4653-19-DH**

**Professional Services for Persigo Wastewater
Treatment Plant Structural Assessment**

RESPONSES DUE:

June 21, 2019 prior to 3:30 PM

Accepting Electronic Responses Only

**Responses Only Submitted Through the Rocky Mountain E-Purchasing System
(RMEPS)**

<https://www.rockymountainbidsystem.com/default.asp>

(Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. 800-835-4603)

PURCHASING REPRESENTATIVE:

Duane Hoff Jr., Senior Buyer

duaneh@gjcity.org

970-244-1545

This solicitation has been developed specifically for a Request for Proposal intended to solicit competitive responses for this solicitation, and may not be the same as previous City of Grand Junction solicitations. All offerors are urged to thoroughly review this solicitation prior to submitting. Submittal by **FAX, EMAIL or HARD COPY IS NOT ACCEPTABLE** for this solicitation.

REQUEST FOR PROPOSAL

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REQUEST FOR PROPOSAL

SECTION 1.0: ADMINISTRATIVE INFORMATION & CONDITIONS FOR SUBMITTAL

- 1.1 **Issuing Office:** This Request for Proposal (RFP) is issued by the City of Grand Junction. All contact regarding this RFP is directed to:

RFP QUESTIONS:

Duane Hoff Jr., Senior Buyer

duaneh@gjcity.org

- 1.2 **Purpose:** The purpose of this RFP is to obtain proposals from qualified professional structural assessment firms to provide structural assessment services for the Persigo Wastewater Treatment .
- 1.3 **The Owner:** The Owner is the City of Grand Junction, Colorado and is referred to throughout this Solicitation. The term Owner means the Owner or his authorized representative.
- 1.4 **Non-Mandatory Site Visit Meeting:** **Prospective offerors are encouraged to attend a non-mandatory site visit meeting on June 4, 2019 at 10:00 am.** Meeting location shall be in the Persigo Wastewater Treatment Plant Conference Room, located at 2145 River Road, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).
- 1.5 **Compliance:** All participating Offerors, by their signature hereunder, shall agree to comply with all conditions, requirements, and instructions of this RFP as stated or implied herein. Should the Owner omit anything from this packet which is necessary to the clear understanding of the requirements, or should it appear that various instructions are in conflict, the Offeror(s) shall secure instructions from the Purchasing Division prior to the date and time of the submittal deadline shown in this RFP.
- 1.6 **Submission:** Please refer to section 5.0 for what is to be included. **Each proposal shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (<https://www.rockymountainbidsystem.com/default.asp>).** *This site offers both “free” and “paying” registration options that allow for full access of the Owner’s documents and for electronic submission of proposals. (Note: “free” registration may take up to 24 hours to process. Please Plan accordingly.)* Please view our “**Electronic Vendor Registration Guide**” at <http://www.gjcity.org/business-and-economic-development/bids/> for details. For proper comparison and evaluation, the City requests that proposals be formatted as directed in Section 5.0 “Preparation and Submittal of Proposals.” Submittals received that fail to follow this format may be ruled non-responsive. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. **800-835-4603**).
- 1.7 **Altering Proposals:** Any alterations made prior to opening date and time must be initialed by the signer of the proposal, guaranteeing authenticity. Proposals cannot be altered or amended after submission deadline.

- 1.8 Withdrawal of Proposal:** A proposal must be firm and valid for award and may not be withdrawn or canceled by the Offeror for sixty (60) days following the submittal deadline date, and only prior to award. The Offeror so agrees upon submittal of their proposal. After award this statement is not applicable.
- 1.9 Acceptance of Proposal Content:** The contents of the proposal of the successful Offeror shall become contractual obligations if acquisition action ensues. Failure of the successful Offeror to accept these obligations in a contract shall result in cancellation of the award and such vendor shall be removed from future solicitations.
- 1.10 Addenda:** All questions shall be submitted in writing to the appropriate person as shown in Section 1.1. Any interpretations, corrections and changes to this RFP or extensions to the opening/receipt date shall be made by a written Addendum to the RFP by the City Purchasing Division. Sole authority to authorize addenda shall be vested in the City of Grand Junction Purchasing Representative. Addenda will be issued electronically through the Rocky Mountain E-Purchasing website at www.rockymountainbidsystem.com. Offerors shall acknowledge receipt of all addenda in their proposal.
- 1.11 Exceptions and Substitutions:** All proposals meeting the intent of this RFP shall be considered for award. Offerors taking exception to the specifications shall do so at their own risk. The Owner reserves the right to accept or reject any or all substitutions or alternatives. When offering substitutions and/or alternatives, Offeror must state these exceptions in the section pertaining to that area. Exception/substitution, if accepted, must meet or exceed the stated intent and/or specifications. The absence of such a list shall indicate that the Offeror has not taken exceptions, and if awarded a contract, shall hold the Offeror responsible to perform in strict accordance with the specifications or scope of services contained herein.
- 1.12 Confidential Material:** All materials submitted in response to this RFP shall ultimately become public record and shall be subject to inspection after contract award. **“Proprietary or Confidential Information”** is defined as any information that is not generally known to competitors and which provides a competitive advantage. Unrestricted disclosure of proprietary information places it in the public domain. Only submittal information clearly identified with the words **“Confidential Disclosure”** and uploaded as a separate document shall establish a confidential, proprietary relationship. Any material to be treated as confidential or proprietary in nature must include a justification for the request. The request shall be reviewed and either approved or denied by the Owner. If denied, the proposer shall have the opportunity to withdraw its entire proposal, or to remove the confidential or proprietary restrictions. Neither cost nor pricing information nor the total proposal shall be considered confidential or proprietary.
- 1.13 Response Material Ownership:** All proposals become the property of the Owner upon receipt and shall only be returned to the proposer at the Owner’s option. Selection or rejection of the proposal shall not affect this right. The Owner shall have the right to use all ideas or adaptations of the ideas contained in any proposal received in response to this RFP, subject to limitations outlined in the entitled “Confidential Material”. Disqualification of a proposal does not eliminate this right.

- 1.14 Minimal Standards for Responsible Prospective Offerors:** A prospective Offeror must affirmably demonstrate their responsibility. A prospective Offeror must meet the following requirements.
- Have adequate financial resources, or the ability to obtain such resources as required.
 - Be able to comply with the required or proposed completion schedule.
 - Have a satisfactory record of performance.
 - Have a satisfactory record of integrity and ethics.
 - Be otherwise qualified and eligible to receive an award and enter into a contract with the Owner.
- 1.15 Open Records:** Proposals shall be received and publicly acknowledged at the location, date, and time stated herein. Offerors, their representatives and interested persons may be present. Proposals shall be received and acknowledged only so as to avoid disclosure of process. However, all proposals shall be open for public inspection after the contract is awarded. Trade secrets and confidential information contained in the proposal so identified by offer as such shall be treated as confidential by the Owner to the extent allowable in the Open Records Act.
- 1.16 Sales Tax:** The Owner is, by statute, exempt from the State Sales Tax and Federal Excise Tax; therefore, all fees shall not include taxes.
- 1.17 Public Opening:** Proposals shall be opened in the City Hall Auditorium, 250 North 5th Street, Grand Junction, CO, 81501, immediately following the proposal deadline. Offerors, their representatives and interested persons may be present. Only the names and locations on the proposing firms will be disclosed.

SECTION 2.0: GENERAL CONTRACT TERMS AND CONDITIONS

- 2.1. Acceptance of RFP Terms:** A proposal submitted in response to this RFP shall constitute a binding offer. Acknowledgment of this condition shall be indicated on the Letter of Interest or Cover Letter by the autographic signature of the Offeror or an officer of the Offeror legally authorized to execute contractual obligations. A submission in response to the RFP acknowledges acceptance by the Offeror of all terms and conditions including compensation, as set forth herein. An Offeror shall identify clearly and thoroughly any variations between its proposal and the Owner's RFP requirements. Failure to do so shall be deemed a waiver of any rights to subsequently modify the terms of performance, except as outlined or specified in the RFP.
- 2.2. Execution, Correlation, Intent, and Interpretations:** The Contract Documents shall be signed by the Owner and Firm. By executing the contract, the Firm represents that they have familiarized themselves with the local conditions under which the Services is to be performed, and correlated their observations with the requirements of the Contract Documents. The Contract Documents are complementary, and what is required by any one, shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment, services and other items necessary for the proper execution and completion of the scope of services as defined in the technical specifications and drawings contained herein. All drawings, specifications and copies furnished by the Owner are, and shall remain, Owner property. They are not to be used on any other project.

- 2.3. Permits, Fees, & Notices:** The Firm shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the services. The Firm shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the services. If the Firm observes that any of the Contract Documents are at variance in any respect, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted by approximate modification. If the Firm performs any services knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he shall assume full responsibility and shall bear all costs attributable.
- 2.4. Responsibility for those Performing the Services:** The Firm shall be responsible to the Owner for the acts and omissions of all his employees and all other persons performing any of the services under a contract with the Firm.
- 2.5. Payment & Completion:** The Contract Sum is stated in the Contract and is the total amount payable by the Owner to the Firm for the performance of the services under the Contract Documents. Upon receipt of written notice that the services is ready for final inspection and acceptance and upon receipt of application for payment, the Owner's Project Manager will promptly make such inspection and, when they find the services acceptable under the Contract Documents and the Contract fully performed, the Owner shall make payment in the manner provided in the Contract Documents. Partial payments will be based upon estimates, prepared by the Firm, of the value of services performed and materials placed in accordance with the Contract Documents. The services performed by Firm shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of services in the applicable community. The services and services to be performed by Firm hereunder shall be done in compliance with applicable laws, ordinances, rules and regulations.
- 2.6. Protection of Persons & Property:** The Firm shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Firm shall erect and maintain, as required by existing safeguards for safety and protection, and all reasonable precautions, including posting danger signs or other warnings against hazards promulgating safety regulations and notifying owners and users of adjacent utilities. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct by the Firm in the execution of the services, or in consequence of the non-execution thereof by the Firm, they shall restore, at their own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or it shall make good such damage or injury in an acceptable manner.
- 2.7. Changes in the Services:** The Owner, without invalidating the contract, may order changes in the services within the general scope of the contract consisting of additions, deletions or other revisions. All such changes in the services shall be authorized by Change Order/Amendment and shall be executed under the applicable conditions of the contract documents. A Change Order/Amendment is a written order to the Firm signed by

the Owner issued after the execution of the contract, authorizing a change in the services or an adjustment in the contract sum or the contract time.

- 2.8. Minor Changes in the Services:** The Owner shall have authority to order minor changes in the services not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents.
- 2.9. Uncovering & Correction of Services:** The Firm shall promptly correct all services found by the Owner as defective or as failing to conform to the contract documents. The Firm shall bear all costs of correcting such rejected services, including the cost of the Owner's additional services thereby made necessary. The Owner shall give such notice promptly after discover of condition. All such defective or non-conforming services under the above paragraphs shall be removed from the site where necessary and the services shall be corrected to comply with the contract documents without cost to the Owner.
- 2.10. Acceptance Not Waiver:** The Owner's acceptance or approval of any services furnished hereunder shall not in any way relieve the proposer of their present responsibility to maintain the high quality, integrity and timeliness of his services. The Owner's approval or acceptance of, or payment for, any services shall not be construed as a future waiver of any rights under this Contract, or of any cause of action arising out of performance under this Contract.
- 2.11. Change Order/Amendment:** No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All amendments to the contract shall be made in writing by the Owner.
- 2.12. Assignment:** The Offeror shall not sell, assign, transfer or convey any contract resulting from this RFP, in whole or in part, without the prior written approval from the Owner.
- 2.13. Compliance with Laws:** Proposals must comply with all Federal, State, County and local laws governing or covering this type of service and the fulfillment of all ADA (Americans with Disabilities Act) requirements. Firm hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law.
- 2.14. Debarment/Suspension:** The Firm hereby certifies that the Firm is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Governmental department or agency.
- 2.15. Confidentiality:** All information disclosed by the Owner to the Offeror for the purpose of the services to be done or information that comes to the attention of the Offeror during the course of performing such services is to be kept strictly confidential.
- 2.16. Conflict of Interest:** No public official and/or Owner employee shall have interest in any contract resulting from this RFP.
- 2.17. Contract:** This Request for Proposal, submitted documents, and any negotiations, when properly accepted by the Owner, shall constitute a contract equally binding between the Owner and Offeror. The contract represents the entire and integrated agreement between

the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral, including the Proposal documents. The contract may be amended or modified with Change Orders, Field Orders, or Amendment.

- 2.18. Project Manager/Administrator:** The Project Manager, on behalf of the Owner, shall render decisions in a timely manner pertaining to the services proposed or performed by the Offeror. The Project Manager shall be responsible for approval and/or acceptance of any related performance of the Scope of Services.
- 2.19. Contract Termination:** This contract shall remain in effect until any of the following occurs: (1) contract expires; (2) completion of services; (3) acceptance of services or, (4) for convenience terminated by either party with a written *Notice of Cancellation* stating therein the reasons for such cancellation and the effective date of cancellation at least thirty days past notification.
- 2.20. Employment Discrimination:** During the performance of any services per agreement with the Owner, the Offeror, by submitting a Proposal, agrees to the following conditions:
- 2.20.1. The Offeror shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, disability, citizenship status, marital status, veteran status, sexual orientation, national origin, or any legally protected status except when such condition is a legitimate occupational qualification reasonably necessary for the normal operations of the Offeror. The Offeror agrees to post in conspicuous places, visible to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- 2.20.2. The Offeror, in all solicitations or advertisements for employees placed by or on behalf of the Offeror, shall state that such Offeror is an Equal Opportunity Employer.
- 2.20.3. Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- 2.21. Immigration Reform and Control Act of 1986 and Immigration Compliance:** The Offeror certifies that it does not and will not during the performance of the contract employ illegal alien services or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986 and/or the immigration compliance requirements of State of Colorado C.R.S. § 8-17.5-101, *et.seq.* (House Bill 06-1343).
- 2.22. Ethics:** The Offeror shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official, or agent of the Owner.
- 2.23. Failure to Deliver:** In the event of failure of the Offeror to deliver services in accordance with the contract terms and conditions, the Owner, after due oral or written notice, may procure the services from other sources and hold the Offeror responsible for any costs resulting in additional purchase and administrative services. This remedy shall be in addition to any other remedies that the Owner may have.

- 2.24. Failure to Enforce:** Failure by the Owner at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of the Owner to enforce any provision at any time in accordance with its terms.
- 2.25. Force Majeure:** The Offeror shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions, and acts of God beyond the control of the Offeror, unless otherwise specified in the contract.
- 2.26. Indemnification:** Offeror shall defend, indemnify and save harmless the Owner and all its officers, employees, insurers, and self-insurance pool, from and against all liability, suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the Offeror, or of any Offeror's agent, employee, sub-contractor or supplier in the execution of, or performance under, any contract which may result from proposal award. Offeror shall pay any judgment with cost which may be obtained against the Owner growing out of such injury or damages.
- 2.27. Independent Firm:** The Offeror shall be legally considered an Independent Firm and neither the Firm nor its employees shall, under any circumstances, be considered servants or agents of the Owner. The Owner shall be at no time legally responsible for any negligence or other wrongdoing by the Firm, its servants, or agents. The Owner shall not withhold from the contract payments to the Firm any federal or state unemployment taxes, federal or state income taxes, Social Security Tax or any other amounts for benefits to the Firm. Further, the Owner shall not provide to the Firm any insurance coverage or other benefits, including Workers' Compensation, normally provided by the Owner for its employees.
- 2.28. Nonconforming Terms and Conditions:** A proposal that includes terms and conditions that do not conform to the terms and conditions of this Request for Proposal is subject to rejection as non-responsive. The Owner reserves the right to permit the Offeror to withdraw nonconforming terms and conditions from its proposal prior to a determination by the Owner of non-responsiveness based on the submission of nonconforming terms and conditions.
- 2.29. Ownership:** All plans, prints, designs, concepts, etc., shall become the property of the Owner.
- 2.30. Oral Statements:** No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this document and/or resulting agreement. All modifications to this request and any agreement must be made in writing by the Owner.
- 2.31. Patents/Copyrights:** The Offeror agrees to protect the Owner from any claims involving infringements of patents and/or copyrights. In no event shall the Owner be liable to the Offeror for any/all suits arising on the grounds of patent(s)/copyright(s) infringement. Patent/copyright infringement shall null and void any agreement resulting from response to this RFP.

- 2.32. Venue:** Any agreement as a result of responding to this RFP shall be deemed to have been made in, and shall be construed and interpreted in accordance with, the laws of the City of Grand Junction, Mesa County, Colorado.
- 2.33. Expenses:** Expenses incurred in preparation, submission and presentation of this RFP are the responsibility of the company and can not be charged to the Owner.
- 2.34. Sovereign Immunity:** The Owner specifically reserves its right to sovereign immunity pursuant to Colorado State Law as a defense to any action arising in conjunction to this agreement.
- 2.35. Public Funds/Non-Appropriation of Funds:** Funds for payment have been provided through the Owner's budget approved by the City Council/Board of County Commissioners for the stated fiscal year only. State of Colorado statutes prohibit the obligation and expenditure of public funds beyond the fiscal year for which a budget has been approved. Therefore, anticipated orders or other obligations that may arise past the end of the stated Owner's fiscal year shall be subject to budget approval. Any contract will be subject to and must contain a governmental non-appropriation of funds clause.
- 2.36. Collusion Clause:** Each Offeror by submitting a proposal certifies that it is not party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any and all proposals shall be rejected if there is evidence or reason for believing that collusion exists among the proposers. The Owner may or may not, at the discretion of the Owner Purchasing Representative, accept future proposals for the same service or commodities for participants in such collusion.
- 2.37. Gratuities:** The Firm certifies and agrees that no gratuities or kickbacks were paid in connection with this contract, nor were any fees, commissions, gifts or other considerations made contingent upon the award of this contract. If the Firm breaches or violates this warranty, the Owner may, at their discretion, terminate this contract without liability to the Owner.
- 2.38. Performance of the Contract:** The Owner reserves the right to enforce the performance of the contract in any manner prescribed by law or deemed to be in the best interest of the Owner in the event of breach or default of resulting contract award.
- 2.39. Benefit Claims:** The Owner shall not provide to the Offeror any insurance coverage or other benefits, including Worker's Compensation, normally provided by the Owner for its employees.
- 2.40. Default:** The Owner reserves the right to terminate the contract in the event the Firm fails to meet delivery or completion schedules, or otherwise perform in accordance with the accepted proposal. Breach of contract or default authorizes the Owner to purchase like services elsewhere and charge the full increase in cost to the defaulting Offeror.
- 2.41. Multiple Offers:** If said proposer chooses to submit more than one offer, THE ALTERNATE OFFER must be clearly marked "Alternate Proposal". The Owner reserves the right to make award in the best interest of the Owner.

2.42. Cooperative Purchasing: Purchases as a result of this solicitation are primarily for the Owner. Other governmental entities may be extended the opportunity to utilize the resultant contract award with the agreement of the successful provider and the participating agencies. All participating entities will be required to abide by the specifications, terms, conditions and pricings established in this Proposal. The quantities furnished in this proposal document are for only the Owner. It does not include quantities for any other jurisdiction. The Owner will be responsible only for the award for our jurisdiction. Other participating entities will place their own awards on their respective Purchase Orders through their purchasing office or use their purchasing card for purchase/payment as authorized or agreed upon between the provider and the individual entity. The Owner accepts no liability for payment of orders placed by other participating jurisdictions that choose to piggy-back on our solicitation. Orders placed by participating jurisdictions under the terms of this solicitation will indicate their specific delivery and invoicing instructions.

2.43. Definitions:

- 2.43.1. "Offeror" and/or "Proposer" refers to the person or persons legally authorized by the Consultant to make an offer and/or submit a response (fee) proposal in response to the Owner's RFP.
- 2.43.2. The term "Services" includes all labor, materials, equipment, and/or services necessary to produce the requirements of the Contract Documents.
- 2.43.3. "Firm" is the person, organization, firm or consultant identified as such in the Agreement and is referred to throughout the Contract Documents. The term Firm means the Firm or his authorized representative. The Firm shall carefully study and compare the General Contract Conditions of the Contract, Specification and Drawings, Scope of Services, Addenda and Modifications and shall at once report to the Owner any error, inconsistency or omission he may discover. Firm shall not be liable to the Owner for any damage resulting from such errors, inconsistencies or omissions. The Firm shall not commence services without clarifying Drawings, Specifications, or Interpretations.
- 2.43.4. "Sub-Contractor" is a person or organization who has a direct contract with the Firm to perform any of the services at the site. The term Sub-Contractor is referred to throughout the contract documents and means a Sub-Contractor or his authorized representative.

2.44. Public Disclosure Record: If the Proposer has knowledge of their employee(s) or sub-proposers having an immediate family relationship with an Owner employee or elected official, the proposer must provide the Purchasing Representative with the name(s) of these individuals. These individuals are required to file an acceptable "Public Disclosure Record", a statement of financial interest, before conducting business with the Owner.

SECTION 3.0: INSURANCE REQUIREMENTS

3.1 Insurance Requirements: The selected Firm agrees to procure and maintain, at its own cost, policy(s) of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by the Firm pursuant to this Section. Such insurance shall be in addition to any other insurance requirements imposed by this Contract or by law. The Firm shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant

to this Section by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

Firm shall procure and maintain and, if applicable, shall cause any Sub-Contractor of the Firm to procure and maintain insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to The Owner. All coverage shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by the Firm pursuant to this Section. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage. Minimum coverage limits shall be as indicated below unless specified otherwise in the Special Conditions:

(a) Worker Compensation: Firm shall comply with all State of Colorado Regulations concerning Workers' Compensation insurance coverage.

(b) General Liability insurance with minimum combined single limits of:

ONE MILLION DOLLARS (\$1,000,000) each occurrence and
ONE MILLION DOLLARS (\$1,000,000) per job aggregate.

The policy shall be applicable to all premises, products and completed operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall include coverage for explosion, collapse, and underground (XCU) hazards. The policy shall contain a severability of interests provision.

(c) Comprehensive Automobile Liability insurance with minimum combined single limits for bodily injury and property damage of not less than:

ONE MILLION DOLLARS (\$1,000,000) each occurrence and
ONE MILLION DOLLARS (\$1,000,000) aggregate

(d) Professional Liability & Errors and Omissions Insurance policy with a minimum of:

ONE MILLION DOLLARS (\$1,000,000) per claim

This policy shall provide coverage to protect the Firm against liability incurred as a result of the professional services performed as a result of responding to this Solicitation.

With respect to each of Consultant's owned, hired, or non-owned vehicles assigned to be used in performance of the Services. The policy shall contain a severability of interests provision.

3.2 Additional Insured Endorsement: The policies required by paragraphs (b), and (c) above shall be endorsed to include the Owner and the Owner's officers and employees as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the Owner, its officers, or its employees, or carried by or provided through any insurance pool of the Owner, shall be excess and not contributory insurance to

that provided by Firm. The Firm shall be solely responsible for any deductible losses under any policy required above.

SECTION 4.0: SPECIFICATIONS/SCOPE OF SERVICES

General/Background: The City of Grand Junction and Mesa County jointly own the Persigo Wash Wastewater Treatment Plant (WWTP). The Persigo WWTP is rated at 12.5 million gallons per day and is located at 2145 River Road in Grand Junction Colorado. The treatment process consists of step screens, grit removal, primary clarification, a primary effluent pump station, primary effluent flow equalization basins, secondary aeration basins, secondary clarification, and ultraviolet disinfection. The treated wastewater is then discharged to the Colorado River via an effluent diffuser. For solids handling, primary sludge is anaerobically digested in two anaerobic digesters and the waste-activated sludge is aerobically digested. Both sludge streams are comingled in a blending tank prior to dewatering with belt filter presses. Biogas produced from anaerobic digestion is captured and treated in a CNG skid so that it can be beneficially used as vehicle fuel. Reference attached separate flow description and diagram.

The plant was designed by Henningson, Durham & Richardson Consultants (1980) out of Denver, Colorado. Construction began in 1982 and the facility was put into service in January 1984. The facility design remains mostly unchanged with only minor modifications and standard equipment replaced due to deterioration and wear. The facility is now over 35 years old and although all mechanical equipment has been maintained and replaced as needed, the buildings are in need of structural evaluation due to deterioration of concrete and steel. Some of the deterioration is due to Hydrogen Sulfide (H₂S) corrosion which is an issue in most waste water facilities. In addition, the facility lies near the Colorado River in an area with a high ground water table. The result is concrete and steel degradation seen in several locations; mostly in flat concrete slabs for floors, but also in walls and a few cracks in the ceilings. In addition, several sections of pump piping continue to deteriorate by erosion from pumpage. There are several distresses observed as listed below (the list is not all-inclusive):

- Cracking of building slabs / foundation floors with possible upward movement of slabs
- Staining and deterioration of concrete walls supporting the Primary Clarifiers
- Hairline cracks in concrete walls with possible water pressure from the exterior of building
- Stress cracks in concrete beams and ceilings around roof openings
- Exterior deterioration of concrete walls
- Delamination of concrete wall at the top of the anaerobic digester
- Deterioration of the steel roof in the south anaerobic digester

There are various possible causes for these distresses, and the City is concerned with the stability of the structures at the present time. In-depth investigation should be conducted to reveal the source of the distresses, prevent future propagation of the distresses, and develop methods to repair or replace the structures. This project intends to improve the stability of the structures and reduce long-term maintenance of the buildings. The purpose of this study is to assess the status of the concrete and structural steel condition in key locations identified in the facility using the latest technologies and application of the latest engineering design standards to ensure continued integrity.

The structural evaluation of the facilities will need to consider:

- Staff safety and health.
- Asset Life Cycle, age of assets, present design and projected life
- Hydrogen Sulfide corrosion
- Ground soils and ground water levels
- Future plant modification plans including replacement of aeration blowers with more energy-efficient turbo blowers.

Project Objectives:

The objective of this project is to perform an engineering investigation that will quantify the condition of facility concrete & structural steel and then identify and evaluate alternatives for repair and replacement to provide continued reliable operation of the Persigo WWTP.

The objectives of this project are:

- Perform a Geotechnical Investigation to establish the existing soil conditions and base ground water levels at the Persigo Wastewater Treatment Plant.
- Inspect the current conditions of the concrete structures at the Persigo Wastewater Treatment Plant utilizing Non-Destructive Testing (NDT) and visual inspection to identify areas of concrete and steel distress;
 - Determine the cause(s) of the distress at each area.
 - Evaluate the need to repair or replace the concrete and reinforcing steel.
- Inspect the current condition of two pump systems; inlet and discharge piping utilizing Non-Destructive Testing (NDT) and visual inspection to identify areas of wear and thinning.
 - Evaluate the need to repair, replace or redesign pipe configuration or materials at each location.
- Develop a report based on these findings to deliver to the City for review.

Areas of Concern (but are not limited to):

4.2.1 Area 1: Raw Sewage Pump Station; concrete floor and pump piping

4.2.2 Area 2: Primary Clarifier; concrete floor

4.2.3 Area 3: Secondary Aeration Basin Gallery (blower room); concrete floor & ceiling, pump piping

4.2.4 Area 4: Aerobic Digester (& Sludge Presses); concrete floor

4.2.5 Area 5: Anaerobic Digester (tanks with concrete/steel covers); tanks walls and concrete & steel covers

4.2. Special Conditions/Provisions:

4.2.1 Price/Fees: Project pricing shall be all inclusive, to include, but not be limited to: labor, materials, equipment, travel, design, drawings, engineering work, shipping/freight, licenses, permits, fees, etc.

Provide a not to exceed cost using Solicitation Response Form found in Section 7, accompanied by a complete list of costs breakdown.

All fees will be considered by the Owner to be negotiable.

4.2.2 Proposed Schedule

1. May 24, 2019, City advertises a RFP for Consultant selection to perform a structural engineering investigation that will assess and quantify the condition of facility concrete & structural steel and then identify and evaluate alternatives for repair and replacement design (Phase 1). Final Report with Final basis of design repair or remediation report for preferred alternative with specifications, construction cost estimates & conceptual design drawings completed by the end of December 2019.
2. Winter of 2020, City advertises a RFP for Consultant selection to design and produce a construction package with plans and specifications that will address repair and replacement design alternatives within the Persigo WWTP (Phase 2). Construction plans and specifications completed by the end of June 2020. (Not Part of this current RFP)
 - a. June 2020, Task 2 of this RFP complete in preparation for 2021 budget setting process.
3. Spring of 2021, City advertises an IFB for Contractor selection to build and restore per construction package from consultant that will address concrete and structural steel deterioration within the Persigo WWTP (Phase 3). (Not Part of this current RFP)
4. Construction of improvements to Persigo Sewer System begins in Summer 2021. (Not Part of this current RFP)

Note: Based on the findings of the 2019 study (Phase 1) the City has additional budgeted funding for concrete repairs that can be used to address deficiencies if they are minor in scope. Major issues identified during the 2019 study that would require a significant capital and depending on the scope of needs would require reprioritizing or requesting additional budget amendments in FY2020 or placed in Project Phase 2/3 as needed.

4.3. Specifications/Scope of Services:

Consultant Responsibilities: The scope of services shall include the following:

Task 1: Project Management and Coordination

Project Initiation: Develop and prepare a project schedule to meet the proposed project time frame and complete assigned tasks. The schedule shall show individual tasks described in the scope of work for the project and identify key milestone dates. The Consultant Project Manager (Consultant PM) shall maintain and update the project schedule as the work proceeds. Consultant PM will be assigned to this project for the duration of the work.

Project Team Coordination: The City PM and the Consultant PM shall maintain ongoing communication about the project on a frequent and regular basis. Consultant PM shall provide:

- Copies of pertinent written communications, including electronic (email) correspondence
- Early identification of potential problems

Progress Meetings: The City and Consultant shall meet, either in person or by telephone conference calls, at regularly scheduled Project Working Group Meetings held at approximate two-week intervals throughout the project. Meetings shall include consultant PM, City PM, Wastewater Services Manager, and other stakeholders as necessary. The Project Working Group Meetings shall be used to coordinate the work effort and resolve any outstanding issues or problems. The meetings shall focus on the following topics:

- Activities completed since last meeting
- Problems encountered or anticipated
- Late activities/activities slipping behind schedule
- Solutions for unresolved or newly identified problems
- Schedule of upcoming activities
- Information on items required.

Communication and Documentation: The Consultant PM shall prepare a written summary report of the general discussions held including all action items assigned. This scope assumes six (6) Project Working Group Meetings via conference call.

Reporting Requirements:

- The Consultant PM shall provide Bi-weekly status reports emailed to project team

The City and consultant will meet to discuss the draft and final report results and recommended repairs and replacement, deliverables for Task 3.

Task 2: Collect, Review, and Organize Existing Information

Geotechnical Investigation. Perform a Geotechnical Investigation to establish soil conditions and water table elevation in the vicinity of the Persigo Wastewater Treatment Plant buildings of concern. The final report shall include soil borings with logs, piezometers for ground water levels, blow counts, and soil moistures for the locations decided upon during preliminary meetings.

Site Inspection. Collect, review, and organize data needed to understand, and to the extent possible quantify, where structural issues are located and determine corrective actions to remediate and repair. The consultant shall visit the site to visually inspect the existing buildings for distress following ACI 201.1R – Guide for Conducting a Visual Inspection of Concrete in Service. Any areas of concern for internal concrete and reinforcement distress shall be investigated using non-destructive testing following ACI 228.2R – Nondestructive Test Methods for Evaluation of Concrete in Structures.

Section 4 of ASCE 11-99 provides guidance and evaluation methods for steel structures. Electric Power Research Institute (EPRI) NP-5380, "Visual Weld Acceptance Criteria," provides additional guidance and evaluation methods for structural welds.

Review documents and information including but not limited to:

- Structural steel, concrete foundation and piping drawings. 1980 Original prints from design contractor.
- Interviews with Persigo staff.
- Operating data including hydrogen sulfide atmospheric measurements in headworks and primary clarifiers.

If the consultant identifies any data gaps, provide recommendations for additional data collection to support study and/or design phases of the project.

Deliverables:

1. Geotechnical Investigation Report with Boring Logs and other test results.
2. Technical memorandum summarizing nondestructive testing (NdT), drilling or boring samples requested, additional visual analysis, and laboratory testing to complete understanding of deterioration at the Persigo WWTP.
3. Tentative Schedule for efficient data gathering and testing to obtain technical data for analysis.

Task 3: Data Analysis and Remediation & Repair Strategies

Cause of Distress. During and after inspection, the consultant shall identify possible causes of the concrete and steel distress based on existing site conditions. It is also important to fully understand the original design intent of a distressed structure before attempting repair.

The extent and severity of the distress shall also be evaluated. The intent of this step is to determine how much concrete or steel has been distressed, and how this distress will affect serviceability of the structure (how long, how wide, how deep, and how much of the structure is involved). This activity can include predicting how quickly the distress may increase and how the distress may progress.

From the information in Task 2, the Consultant shall conduct an analysis that will develop a basis of design and repair, identify and evaluate alternatives, and recommend a preferred alternative or combination of alternatives including budgetary estimates for each area of repair identified. Task 3 shall include but not be limited to:

- ❖ The consultant shall create a report outlining the recommendations to repair the distressed concrete and reinforcement or structural steel in the existing buildings and structures at the Persigo Wastewater Treatment Plant based on the site investigation and the possible causes of distress. The consultant's recommendations shall be based on previous experience with similar structures, and shall distinguish between the following recommendations:
 - No repair needed (cosmetic damage only)
 - Proper maintenance
 - Repair of distressed area

- Replacement of a majority of structure
- ❖ Prepare a preliminary basis of design report for the alternative evaluation
- ❖ Identify and evaluate alternatives
- ❖ Develop conceptual designs of alternatives
- ❖ Develop life cycle cost estimates for each of the alternatives (capital and operating)
- ❖ Develop budgetary costs for each repair alternative and replacement based on local construction fees at the present time.
- ❖ Prepare and facilitate an evaluation workshop with City Staff
- ❖ Finalize basis of design report for the preferred alternatives

Deliverables:

1. Draft and final basis of design repair or remediation report for preferred alternative.
 1. Based on the findings of the 2019 study (Phase 1) the City has additional budgeted funding for concrete and structural repairs that can be used to address deficiencies if they are minor in scope. As communicated within the report recommendation or by addendum to this RFP, additional design work may be requested to facilitate immediate remediation.

4.4. Non-Mandatory Site Visit Meeting: Prospective offerors are encouraged to attend a non-mandatory site visit meeting on June 4, 2019 at 10:00 am. Meeting location shall be in the Persigo Wastewater Treatment Plant Conference Room, located at 2145 River Road, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).

4.5. Attached Documents:

- Attach 1; Persigo Flow, Hydraulic & Plot Diagrams
- Attach 2; Persigo WWTP Flow Description
- Attach 3; Persigo Concrete Assessment Picture File
- Attach 4: Hydrogen sulfide H₂S atmospheric measurements (in headworks and primary clarifiers)
- Attach 5: 12 Hour H₂S Meter reading from the headworks for the last 30 days plotted against inflow rate

4.6. RFP Tentative Time Schedule:

- | | |
|---------------------------------------------------|-------------------|
| • Request for Proposal available: | May 24, 2019 |
| • Non-Mandatory Site Visit Meeting | June 5, 2019 |
| • Inquiry deadline, no questions after this date: | June 12, 2019 |
| • Addendum Posted: | June 14, 2019 |
| • Submittal deadline for proposals: | June 21, 2019 |
| • Owner evaluation of proposals: | June 24 -28, 2019 |
| • Interviews (if required) | July 9, 2019 |
| • Final selection: | July 12, 2019 |
| • Contract execution: | July 19, 2019 |
| • Work begins no later than: | July 25, 2019 |

4.7. Questions Regarding Scope of Services:

Duane Hoff Jr., Senior Buyer
duaneh@gjcity.org

SECTION 5.0: PREPARATION AND SUBMITTAL OF PROPOSALS

Submission: *Each proposal shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (<https://www.rockymountainbidsystem.com/default.asp>). This site offers both “free” and “paying” registration options that allow for full access of the Owner’s documents and for electronic submission of proposals. (Note: “free” registration may take up to 24 hours to process. Please Plan accordingly.)* Please view our “**Electronic Vendor Registration Guide**” at <http://www.gjcity.org/BidOpenings.aspx> for details. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline **800-835-4603**). For proper comparison and evaluation, the City requests that proposals be formatted as directed in Section 5.0 “Preparation and Submittal of Proposals.” Offerors are required to indicate their interest in this Project, show their specific experience and address their capability to perform the Scope of Services in the Time Schedule as set forth herein. For proper comparison and evaluation, the Owner requires that proposals be formatted **A to F**:

- A. Cover Letter:** Cover letter shall be provided which explains the Firm's interest in the project. The letter shall contain the name/address/phone number/email of the person who will serve as the firm's principal contact person with Owner's Contract Administrator and shall identify individual(s) who will be authorized to make presentations on behalf of the firm. The statement shall bear the signature of the person having proper authority to make formal commitments on behalf of the firm. By submitting a response to this solicitation the Firm agrees to all requirements herein.
- B. Qualifications/Experience/Credentials:** Proposers shall provide their qualifications for consideration as a contract provider to the City of Grand Junction and include prior experience in similar projects.
- C. Strategy and Implementation Plan:** Describe your (the firm's) interpretation of the Owner's objectives with regard to this RFP. Describe the proposed strategy and/or plan for achieving the objectives of this RFP. The Firm may utilize a written narrative or any other printed technique to demonstrate their ability to satisfy the Scope of Services. The narrative should describe a logical progression of tasks and efforts starting with the initial steps or tasks to be accomplished and continuing until all proposed tasks are fully described and the RFP objectives are accomplished. Include a **time schedule** for completion of your firm's implementation plan and an estimate of time commitments from Owner staff.
- D. References:** A minimum of three (3) **references** with name, address, telephone number, and email address that can attest to your experience in projects of similar scope and size.
- E. Fee Proposal:** Provide a not to exceed cost using Solicitation Response Form found in Section 7, accompanied by a complete list of costs breakdown.
- F. Additional Data (optional):** Provide any additional information that will aid in evaluation of your qualifications with respect to this project.

SECTION 6.0: EVALUATION CRITERIA AND FACTORS

- 6.1 Evaluation:** An evaluation team shall review all responses and select the proposal or proposals that best demonstrate the capability in all aspects to perform the scope of services and possess the integrity and reliability that will ensure good faith performance.
- 6.2 Intent:** Only respondents who meet the qualification criteria will be considered. Therefore, it is imperative that the submitted proposal clearly indicate the firm's ability to provide the services described herein.

Submittal evaluations will be done in accordance with the criteria and procedure defined herein. The Owner reserves the right to reject any and all portions of proposals and take into consideration past performance. The following parameters will be used to evaluate the submittals (in no particular order of priority):

- Responsiveness of submittal to the RFP

- Understanding of the project and the objectives
- Experience/Demonstrated capability
- Strategy & Implementation Plan
- References
- Fees

Owner also reserves the right to take into consideration past performance of previous awards/contracts with the Owner of any vendor, Firm, supplier, or service provider in determining final award(s).

The Owner will undertake negotiations with the top rated firm and will not negotiate with lower rated firms unless negotiations with higher rated firms have been unsuccessful and terminated.

6.3 Oral Interviews (if required): The Owner reserves the right to invite the most qualified rated proposer(s) to participate in oral interviews, if needed.

6.4 Award: Firms shall be ranked or disqualified based on the criteria listed in Section 6.2. The Owner reserves the right to consider all of the information submitted and/or oral presentations, if required, in selecting the project Firm.

SECTION 7.0: SOLICITATION RESPONSE FORM

RFP-4653-19-DH Professional Services for Persigo Wastewater Treatment Plant Structural Assessment

Offeror must submit entire Form completed, dated and signed.

- 1) **Not to exceed cost to provide design services for the Professional Services for Persigo Treatment Plant Structural Assessment for labor, materials, equipment, travel, design, drawings, engineering work, shipping/freight, licenses, permits, fees, etc. per specifications:**

NOT TO EXCEED COST \$ _____

WRITTEN: _____ dollars.

The Owner reserves the right to accept any portion of the services to be performed at its discretion

The undersigned has thoroughly examined the entire Request for Proposals and therefore submits the proposal and schedule of fees and services attached hereto.

This offer is firm and irrevocable for sixty (60) days after the time and date set for receipt of proposals.

The undersigned Offeror agrees to provide services and products in accordance with the terms and conditions contained in this Request for Proposal and as described in the Offeror's proposal attached hereto; as accepted by the Owner.

Prices in the proposal have not knowingly been disclosed with another provider and will not be prior to award.

- Prices in this proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- No attempt has been made nor will be to induce any other person or firm to submit a proposal for the purpose of restricting competition.
- The individual signing this proposal certifies they are a legal agent of the offeror, authorized to represent the offeror and is legally responsible for the offer with regard to supporting documentation and prices provided.
- Direct purchases by the City of Grand Junction are tax exempt from Colorado Sales or Use Tax. Tax exempt No. 98-903544. The undersigned certifies that no Federal, State, County or Municipal tax will be added to the above quoted prices.
- City of Grand Junction payment terms shall be Net 30 days.
- Prompt payment discount of _____ percent of the net dollar will be offered to the Owner if the invoice is paid within _____ days after the receipt of the invoice.

RECEIPT OF ADDENDA: the undersigned Firm acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents. State number of Addenda received: _____

It is the responsibility of the Proposer to ensure all Addenda have been received and acknowledged.

Company Name – (Typed or Printed)

Authorized Agent – (Typed or Printed)

Authorized Agent Signature

Phone Number

Address of Offeror

E-mail Address of Agent

City, State, and Zip Code

Date

FLOW EQUALIZATION BASINS
VOLUME - 11.0 MG
EIGHT - SURFACE AERATORS (20 HP EACH)

AERATION BASIN INFLUENT
DESIGN FLOW - 12.5 MGD
PEAK FLOW 16.0 MGD Δ
BOD₅ - 18,252 LB/DAY
TSS - 10,383 LB/DAY

AERATION BASINS
FOUR (4) UNITS
VOLUME - 3,125 MGD
DETENTION TIME - 6.2 HRS
SWD - 18' 0"
LOAD FACTOR 46³ BOD/1000 CF
AIR REQUIREMENTS - 18,252 LB/DAY DESIGN
82 SUBMERGED TURBINE AERATORS

FINAL CLARIFIER Δ
SWD - 14' 0"
SOR (NET) 547 GPD/SF
WEIR OVERFLOW RATE
3550 GPD/LF
DETENTION TIME - 4.2 HRS

CHLORINE CONTACT
BASIN
TWO (2) BASINS
VOLUME 520,000 CF
SWD 12' 0"
DETENTION TIME
60 MIN @
DESIGN
CHLORINE DOSEAGE
5 MG/L (570 LB/DAY)
SULPHUR DIOXIDE DOSEAGE
1 MG/L (100 LB/DAY)

FINAL EFFLUENT
BOD₅ - 30 MG/L (3120 LB/DAY)
TSS - 30 MG/L (3120 LB/DAY)

RAW SEWAGE INFLUENT
DESIGN FLOW - 12.5 MGD
MAX DAY FLOW - 21.25 MGD (DRY WEATHER)
MAX DAY FLOW - 40.0 MGD, (WET WEATHER)
BOD₅ 254 MG/L (26,400 LB/DAY)
TSS - 225 MG/L (23,400 LB/DAY)

PRIMARY CLARIFIER INFLUENT
BOD₅ 28,000 LB/DAY (TOTAL)
TSS - 25,900 LB/DAY (TOTAL)

PRIMARY CLARIFIER EFFLUENT
BOD₅ - 18,252 LB/DAY
TSS - 10,383 LB/DAY

PRIMARY CLARIFIER
TWO (2) 115' 0" DIA
SWD 8' 0"
SOR (NET) - 653 GPD/SF
WEIR OVER FLOW RATE
9600 GPD/LF
DETENTION TIME - 3.11 HRS

RAW SEWAGE PUMP STATION
ONE (1) - 17.5 MGD VARIABLE SPEED PUMP
ONE (1) - 10.0 MGD VARIABLE SPEED PUMP
TWO (2) - 10.0 MGD CONSTANT SPEED PUMP

RAW PRIMARY SLUDGE
37,345 GPD
TSS - 15,573 LB/DAY
8% SOLIDS

FLOW METERING
4'-0" PARSHALL FLUME
MIN FLOW - 0.82 MGD
MAX FLOW - 44.03 MGD

SCREENING
TWO (2) 4'-0" MECHANICALLY
CLEANED BAR SCREENS

IN-PLANT
WASTE PUMP STATION

GRIT REMOVAL
TWO (2) CIRCULAR UNITS
20'-0" DIA
SOR - 4000 GPD/SF
65 MESH REMOVAL

WASTE ACTIVATED SLUDGE
122,865 GPD
TSS - 10,247 LB/DAY @ 1% SOLIDS

FILTRATE & SUPERNATANT
144,740 GPD
TSS 2200 LB/DAY

SLUDGE PROCESSING UNIT
FOUR (4) - 7 METER BELT PRESSES
DEWATERED SLUDGE TO LANDFILL
17,300 LB/DAY @ 20% SOLIDS

DIGESTED SLUDGE
21,745 GPD @ 4% SOLIDS
TSS 9,890 LB/DAY

ANAEROBIC DIGESTERS
ONE (1) 60' DIA PRIMARY DIGESTER
VOLUME 79,150 CF
SWD - 20'
DETENTION TIME - 15 DAYS
ONE (1) - 60' DIAMETER SECONDARY DIGESTER
VOLUME - 79,150 CF
SWD - 20'
DETENTION TIME - 15 DAYS

SUPERNATANT PUMP STATION

SUPERNATANT
BOD₅ - 267 LB/DAY
TSS - 700 LB/DAY
FLOW - 5000 GPD

No 1
No 2
AEROBIC DIGESTERS
FOUR (4) AEROBIC DIGESTERS
VOLUME = 251,100 CF
DETENTION TIME 13.5 DAYS
OXYGEN REQUIREMENTS = 6150 LB/DAY
No 3
No 4
AEROBIC DIGESTED SLUDGE
55,935 GPD @ 2% SOLIDS
9930 LB/DAY

GRAND JUNCTION / MESA COUNTY,
COLORADO
PERRIGO WASH
WASTEWATER TREATMENT
PLANT
SECTION I GENERAL

PLANT PROCESS
FLOW SCHEMATIC

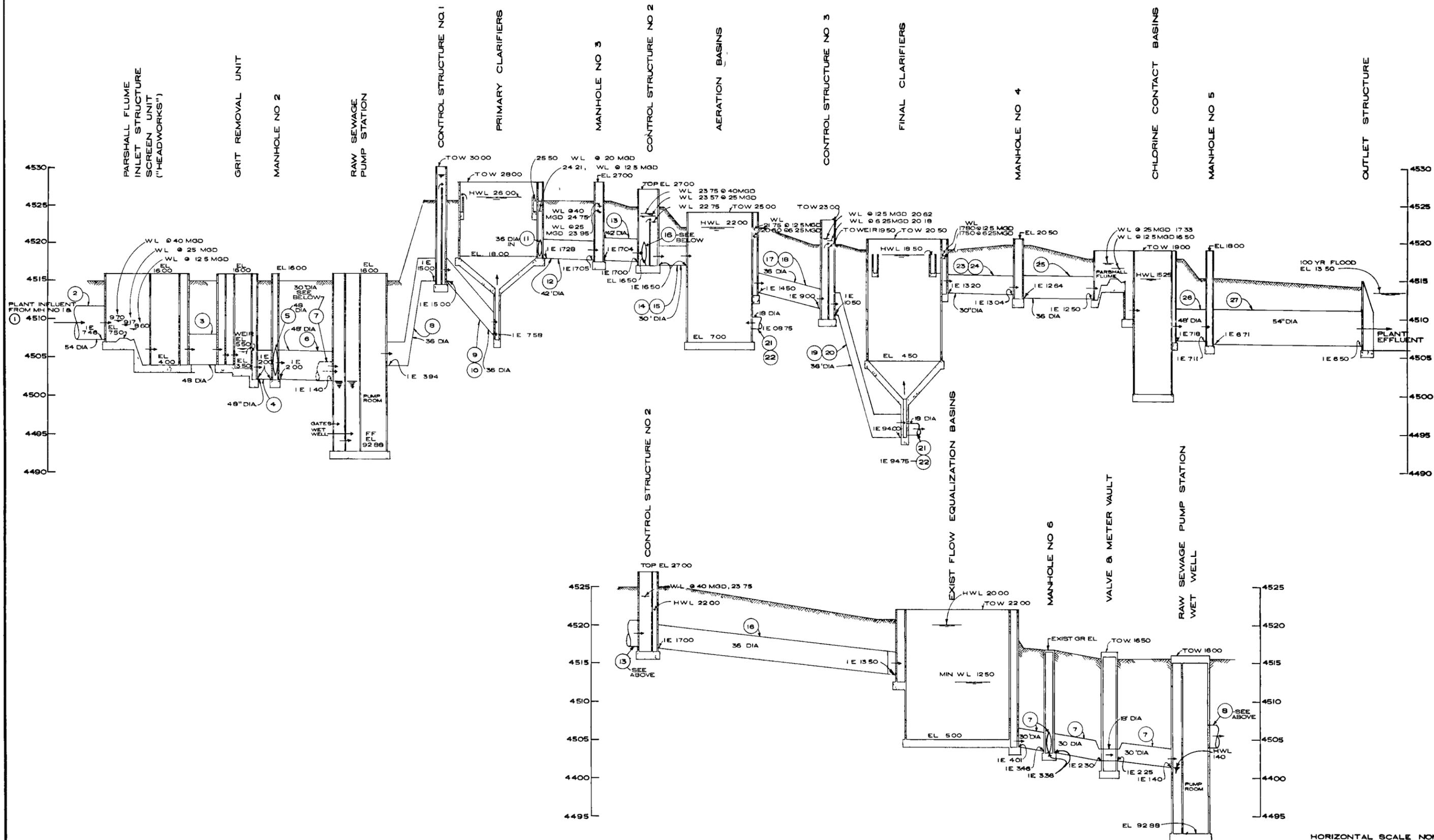
HENDERSON, DURHAM & RICHARDSON, INC.
BUSINESS PLANNERS CONSULTANTS
DENVER COLORADO GRAND JUNCTION COLORADO



AS RECORDED
FROM INFORMATION
PROVIDED BY THE
CONTRACTORS
DATE: MM/YY

DATE	REVISION	DESCRIPTION	BY	CHK	APP
1/17/84	AS BUILT				
3/18/81		AEROBIC DIGESTER NO 4 ADDED & REVISIONS	DEB	PAH	

DESIGNED BY P.A. HITE
APPROVED BY HENDERSON
DATE NOV 1980
734510
1-3



HORIZONTAL SCALE NONE
 VERTICAL SCALE 1"=5'-0"

GRAND JUNCTION / MESA COUNTY,
 COLORADO
**PERSIGO WASH
 WASTEWATER TREATMENT
 PLANT**
 SECTION I GENERAL
HYDRAULIC PROFILE

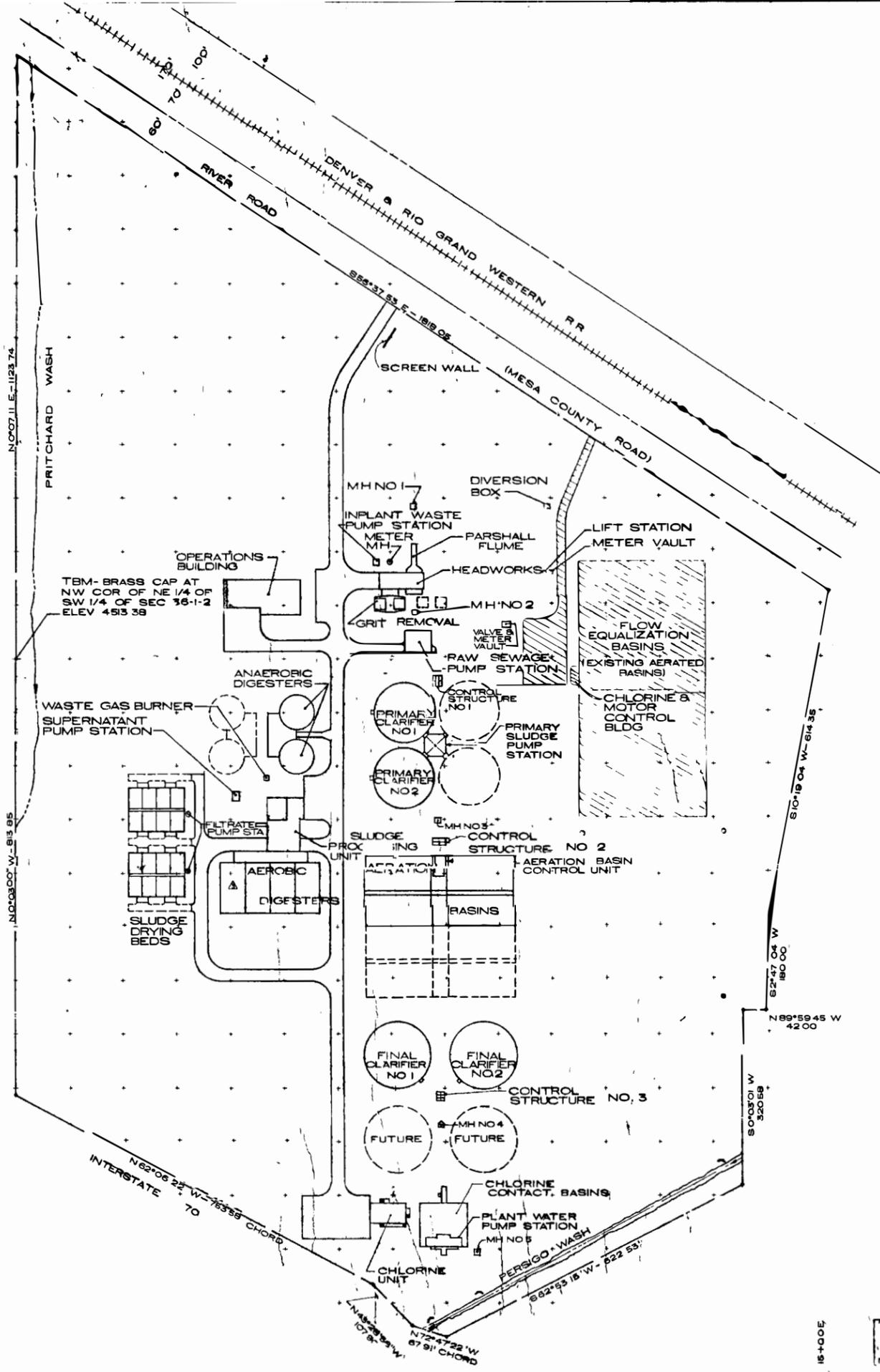


AS RECORDED
 FROM INFORMATION
 PROVIDED BY THE
 CONTRACTOR
 DATE 11/1/83

HINNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERS PLANNERS CONSULTANTS
 DENVER COLORADO GRAND JUNCTION COLORADO

NO.	DATE	DESCRIPTION	BY	APPROVED
1	10/1/83	As Built		
2				

11+00 N
10+00 N
9+00 N
8+00 N
7+00 N
6+00 N
5+00 N
4+00 N
3+00 N
2+00 N
1+00 N
0+00 N
1+00 S
2+00 S
3+00 S
4+00 S
5+00 S
6+00 S
7+00 S
8+00 S
9+00 S
10+00 S
11+00 S
12+00 S



100 0 100
SCALE IN FEET

- LEGEND**
- PROPOSED STRUCTURES & DRIVE
 - ▨ FUTURE STRUCTURES
 - ▩ EXISTING STRUCTURES & DRIVE
 - - - PROPERTY LINE
 - ▬ PROPOSED GRAVEL DRIVE (AT SLUDGE BEDS)
 - PROPOSED FENCE

N 0°07'11" E - 1123.74'

N 0°03'00" W - 813.95'

N 62°06'22" W - 763.58' CHORD
INTERSTATE 70

S 88°37'53" E - 1818.02'

S 10°19'04" W - 614.38'

S 2°47'04" W - 180.00'

N 89°59'45" W - 42.00'

S 0°03'01" W - 320.59'

N 72°47'22" W - 87.91' CHORD

S 82°53'18" W - 822.53'

0+00 E 1+00 E 2+00 E 3+00 E 4+00 E 5+00 E 6+00 E 7+00 E 8+00 E 9+00 E 10+00 E 11+00 E 12+00 E 13+00 E 14+00 E

15+00 E

AS RECORDED FROM INFORMATION PROVIDED BY THE CONTRACTORS DATE



07087805.tif

GRAND JUNCTION / MESA COUNTY, COLORADO
PERSIGO WASH WASTEWATER TREATMENT PLANT
SECTION II SITE WORK

OVERALL SITE PLAN

HERRINGSON, DURHAM & RICHARDSON, INC.
ENGINEERS PLANNERS CONSULTANTS
DENVER, COLORADO GRAND JUNCTION, COLORADO

NO.	DATE	DESCRIPTION	BY	CHKD.	APPROV.
1	11-11-80	RELOCATED PRIMARY & FINAL CLARIFIERS	AZE	PH	
2	11-11-80	CHLORINE FACILITIES & SLUDGE BEDS			

734510
APPROVED: HERRINGSON
DATE: NOV 1980

Persigo Wastewater Treatment Plant (WWTP) Flow Description

In the mid-1970s the City of Grand Junction and Mesa County recognized the need to upgrade the regions wastewater collection and treatment facilities to serve rapid population growth anticipated by the energy developments occurring at that time. The City and County joined forces to begin planning for a new wastewater treatment plant and interceptor sewers to convey wastewater to the new facilities which would ultimately replace the West Side plant and a number of small independent treatment plants. The phases of the wastewater program implemented by the City and County included:

- River Road Interceptor Sewer
- Independent Avenue Interceptor Sewer
- Paradise Hills Interceptor Sewer
- Tiara Rado and Goat Wash Interceptor Sewers
- Persigo Wastewater Treatment Plant

All phases of the program resulted in a cost of approximately \$28,000,000 of which 75% was paid for by Environmental Protection Agency grants. Additional phases of the wastewater program include a storm water separation study and reflect a continuing commitment by the City and County to enhance the quality of life in the Grand Valley.

The wastewater is transported through a 54-inch diameter interceptor sewer in River Road to the Persigo plant, a distance of approximately 5 miles.



In January of 1982 construction began on the Persigo Wastewater Treatment Plant and this facility was put into service in January of 1984.

Persigo WasteWater Treatment Plant (WWTP) Flow Description



Wastewater enters the Persigo plant at the Headworks through a parshall flume which meters the volume of wastes to be treated.



Persigo WasteWater Treatment Plant (WWTP) Flow Description



The wastewater then passes through mechanically cleaned bar screens which remove coarse solids such as rags and sticks. From the bar screens all flow passes through grit removal basins. From the grit removal basins all flow is pumped to two (2) primary clarifiers by the raw water pumps.



Persigo WasteWater Treatment Plant (WWTP) Flow Description



Each primary clarifier is 115 feet in diameter. Settleable wastewater solids are removed by these units by gravity settling. A scraper mechanism collects and moves the solids to the center of each clarifier where they are drawn off and pumped to anaerobic digesters for further processing.



Persigo WasteWater Treatment Plant (WWTP) Flow Description

From the primary clarifiers the wastewater flows to a diversion structure which normally diverts the flow to aeration basins. During storm flow periods the structure will also divert part of the flow to aerated flow equalization basins. The flow diverted to the flow equalization basins is returned and pumped through the treatment process during low flow periods. The main flow stream from the diversion structure enters the aeration basins which provide biological treatment of the wastewater under aerobic conditions. In this process biological microorganisms are produced and mixed with the wastewater. These microorganisms grow by using the organic as food and as the microorganisms grow they clump together to form an active mass of microbes called activated sludge. The wastewater flows continuously into the aeration basins where air is injected to supply oxygen needed for the microorganisms to grow and break down the organic matter.



From the aeration basins the wastewater flows to the final clarifiers.

Persigo WasteWater Treatment Plant (WWTP) Flow Description

The wastewater from the final clarifiers flows to ultraviolet (UV) disinfection where light is used for final treatment of the wastewater. The treated wastewater is then discharge to the Colorado River via an effluent diffuser.



Persigo WasteWater Treatment Plant (WWTP) Flow Description

The sludge processing systems for the plant include anaerobic digesters which provide biological treatment to decompose organic solids in an environment which is heated and operates in a state lacking oxygen. The process decomposes the organic solids and produces methane gas and carbon dioxide as byproducts along with a stable digested sludge product. The methane gas produced is used to heat the contents of the digesters and for building heat in the anaerobic digester complex. Excess biogas produced from anaerobic digestion is capture and treated in a CNG skid so that I can be beneficially used to fuel approximately 60 city vehicles.



Persigo WasteWater Treatment Plant (WWTP) Flow Description



The waste solids from the activated sludge system are pumped to aerobic digestion which is an extension or continuation of the activated sludge process. The waste solids are aerated for an extended period of time with similar micro organic activity as the activated sludge system. The process results in a stable microbial sludge mass relatively free of organic matter.



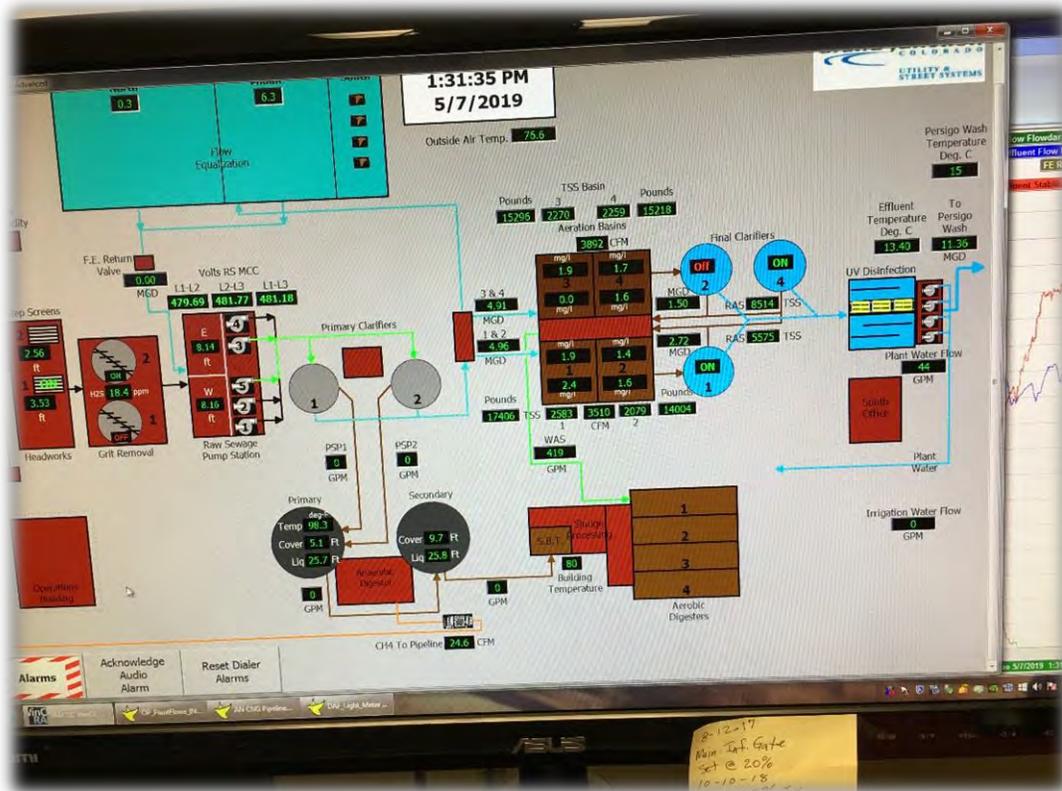
Persigo WasteWater Treatment Plant (WWTP) Flow Description

Disposal of digested sludge is accomplished by utilizing four belt presses for dewatering the sludge to dry cake using the pressure principal of "squeezing" the water out of the sludge. The dewatered sludge removed from the plant is hauled to the local landfill.



Persigo Wastewater Treatment Plant (WWTP) Flow Description

The plant control utilizes SCADA control from desktop computers in the main building control room with remote monitoring and alarm notification to operators via handhelds.



The plant is designed for an average flow of 12.5 MGD and a population of approximately 125,000. The plant was designed to be expanded to a 25 MGD plant. Other features of the plant include the use of solar panels on the Operations Building for building heating, the use of plant effluent for irrigation purposes, and odor control systems at selected areas in the plant.

Persigo WWTP Concrete Assessment Picture File



Picture 1, Grit Pump and Floor



Picture 2, Grit Pump Floor

Persigo WWTP Concrete Assessment Picture File



Picture 3, Raw Sewage Station Pump, Pipe and Floor



Picture 4, Raw Sewage Station Floor

Persigo WWTP Concrete Assessment Picture File



Picture 5, Raw Sewage Station Pump Inlet Pipe



Picture 6, Raw Sewage Station Pump Inlet Pipe

Persigo WWTP Concrete Assessment Picture File



Picture 7, Raw Sewage Station Pump Inlet Pipe Erosion on Elbow

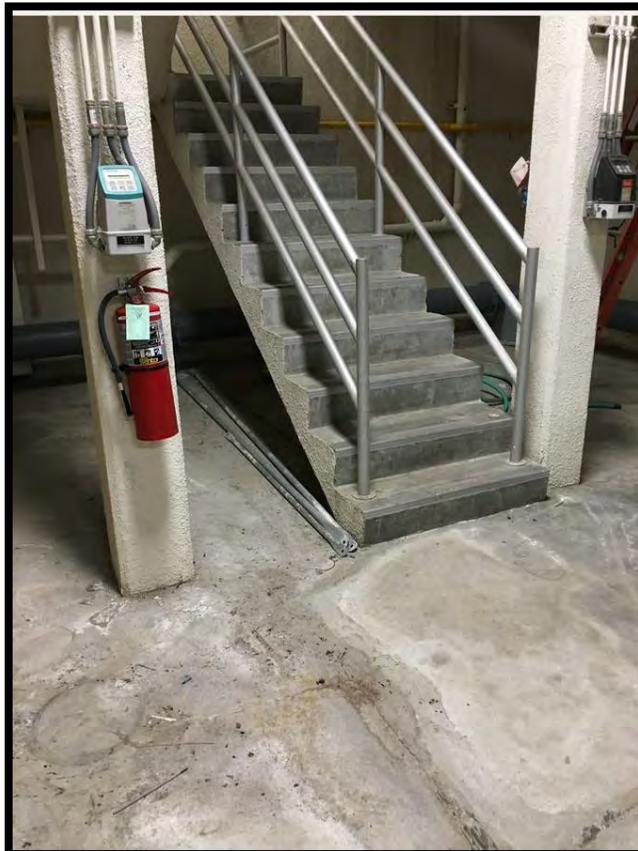


Picture 8, Primary Clarifier Wall and Roof

Persigo WWTP Concrete Assessment Picture File

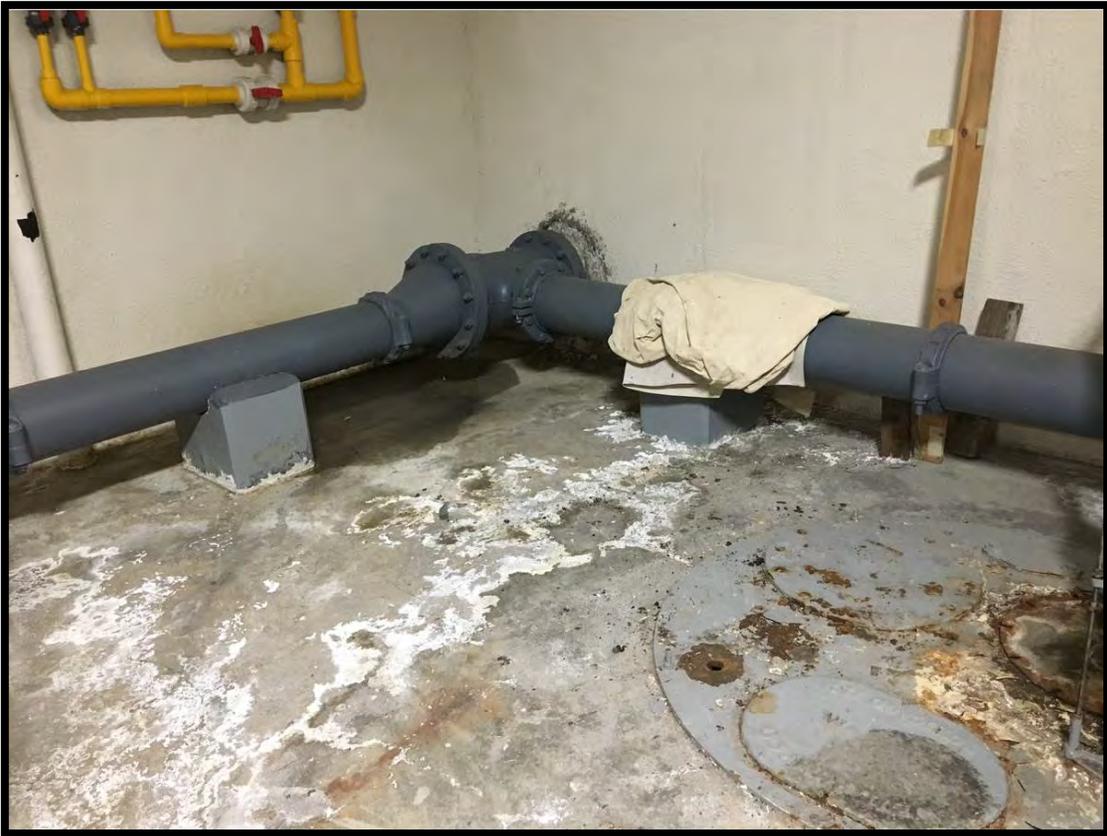


Picture 9, Aerobic Basin Basement Floor (Blowers)



Picture 10, Aerobic Basin Basement Stairs and Floor

Persigo WWTP Concrete Assessment Picture File

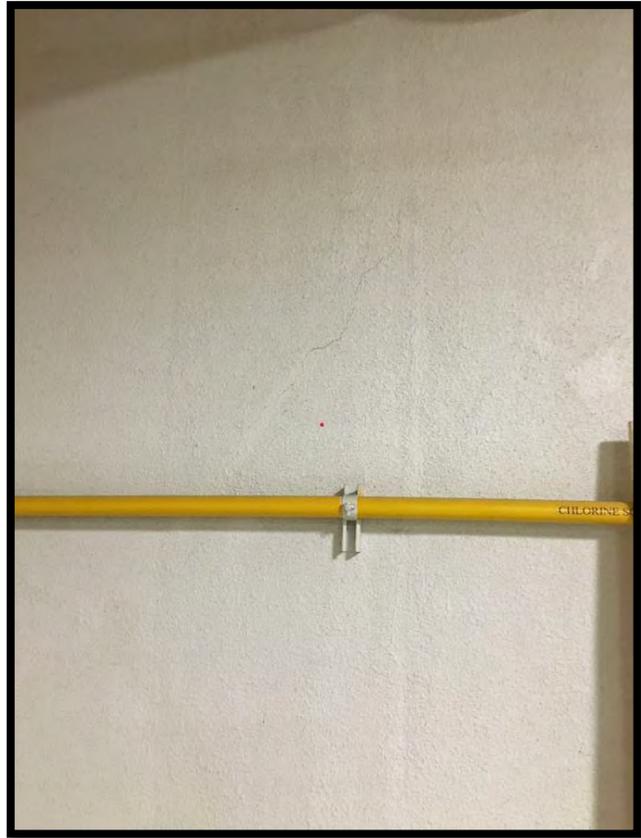
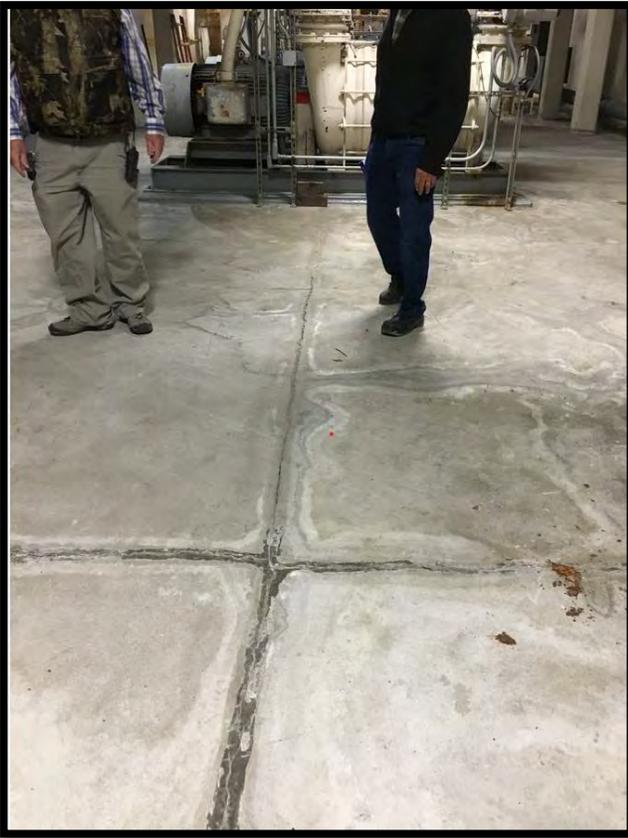


Picture 11, Aerobic Basin Floor and Piping



Picture 12, Aerobic Basin and Piping

Persigo WWTP Concrete Assessment Picture File



Picture 13 A&B, Aerobic Basin Basement Floor and Wall

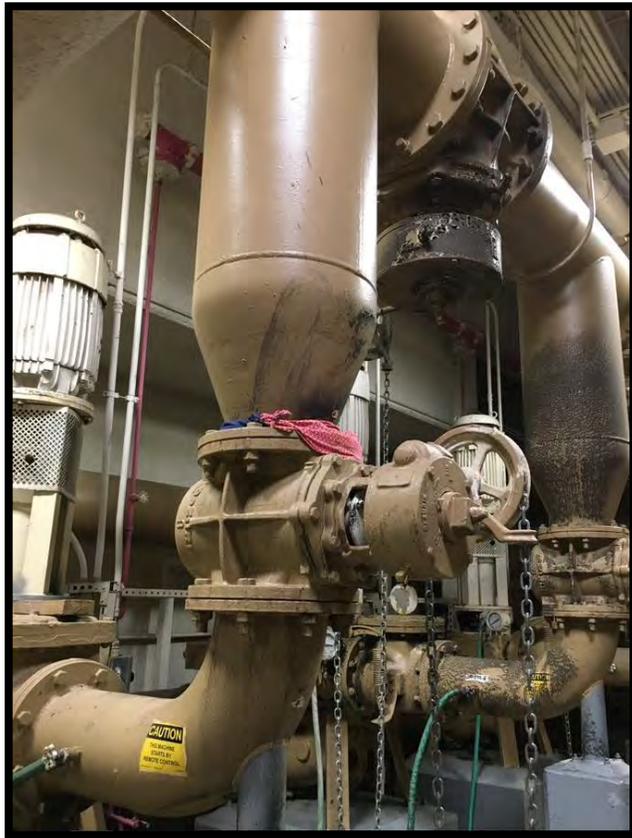


Picture 14, Aerobic Basin Blowers

Persigo WWTP Concrete Assessment Picture File



Picture 15 A&B, Aerobic Basin Basement Floor

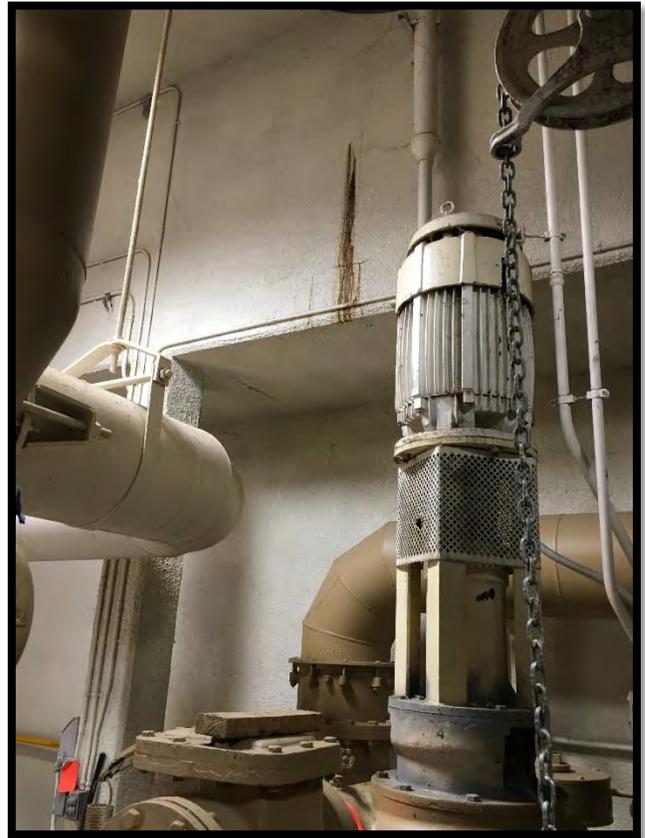
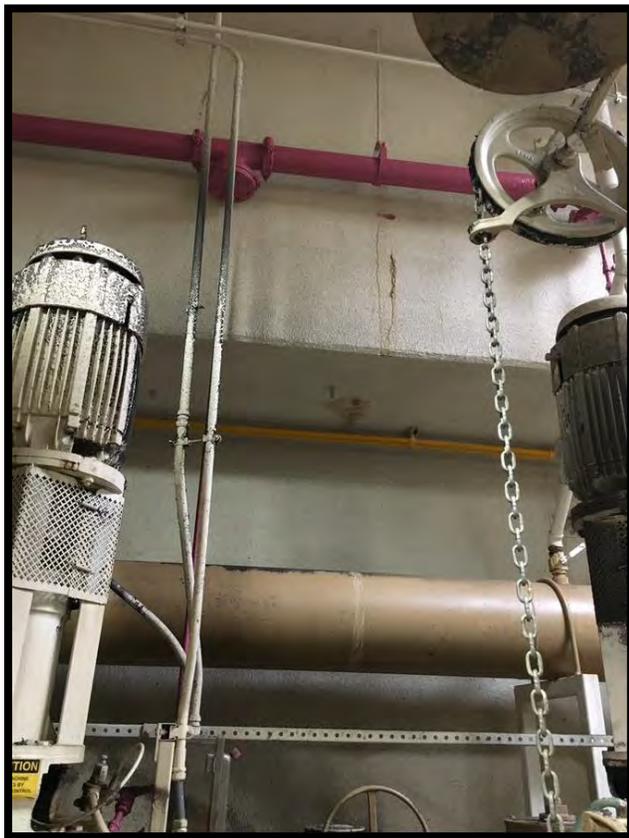


Picture 16, Aerobic Basin Basement Pump Pipe Erosion at Reducer Flange

Persigo WWTP Concrete Assessment Picture File



Picture 17, Aerobic Basin Basement Pump Pipe with spray from reducer leak



Picture 18 A & B, Aerobic Basin Basement Wall Crack

Persigo WWTP Concrete Assessment Picture File

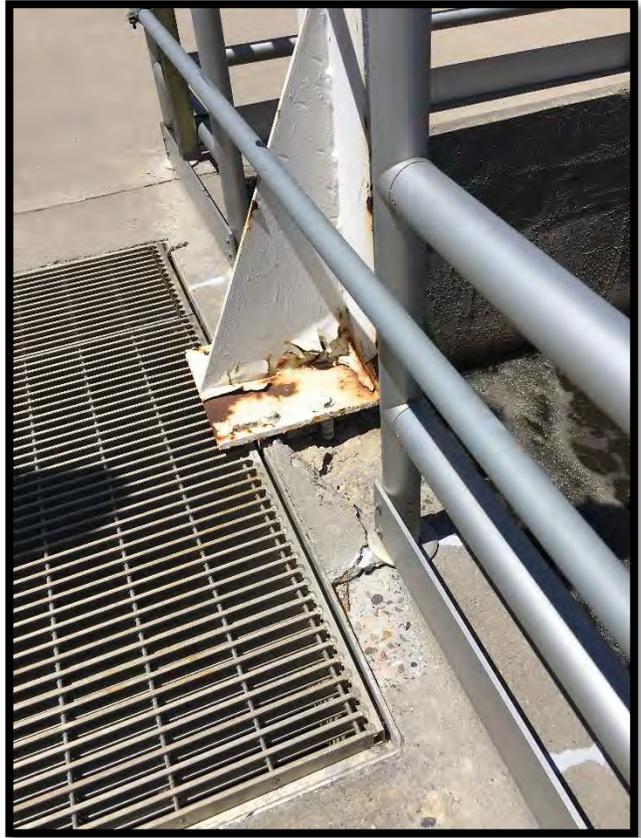


Picture 19 A&B, Aerobic Basement Ceiling Crack

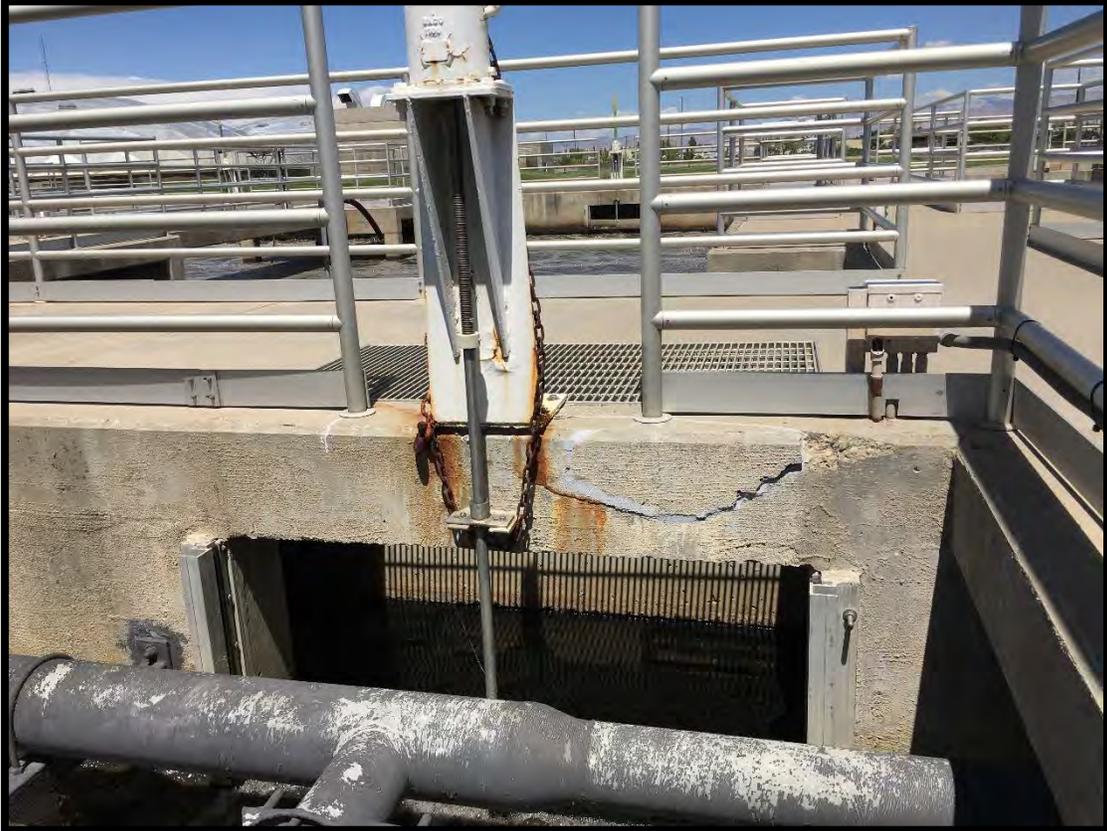


Picture 20, Aeration Basin

Persigo WWTP Concrete Assessment Picture File



Picture 21 A&B, Aeration Basin Concrete and Gate Support



Picture 22, Aeration Basin Concrete and Gate Support

Persigo WWTP Concrete Assessment Picture File



Picture 23, Aerobic Digester

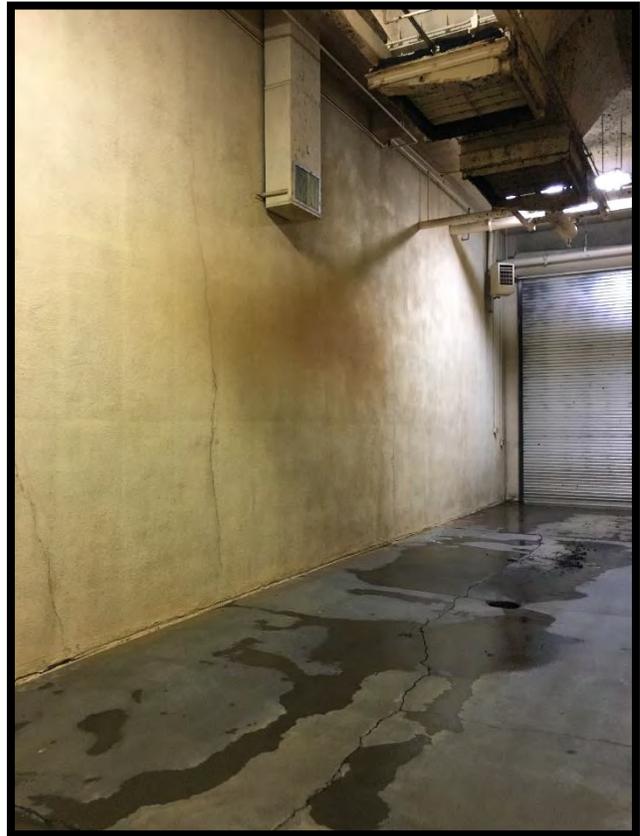


Picture 24, Aerobic Digester Stairway, Rebar erosion in concrete

Persigo WWTP Concrete Assessment Picture File

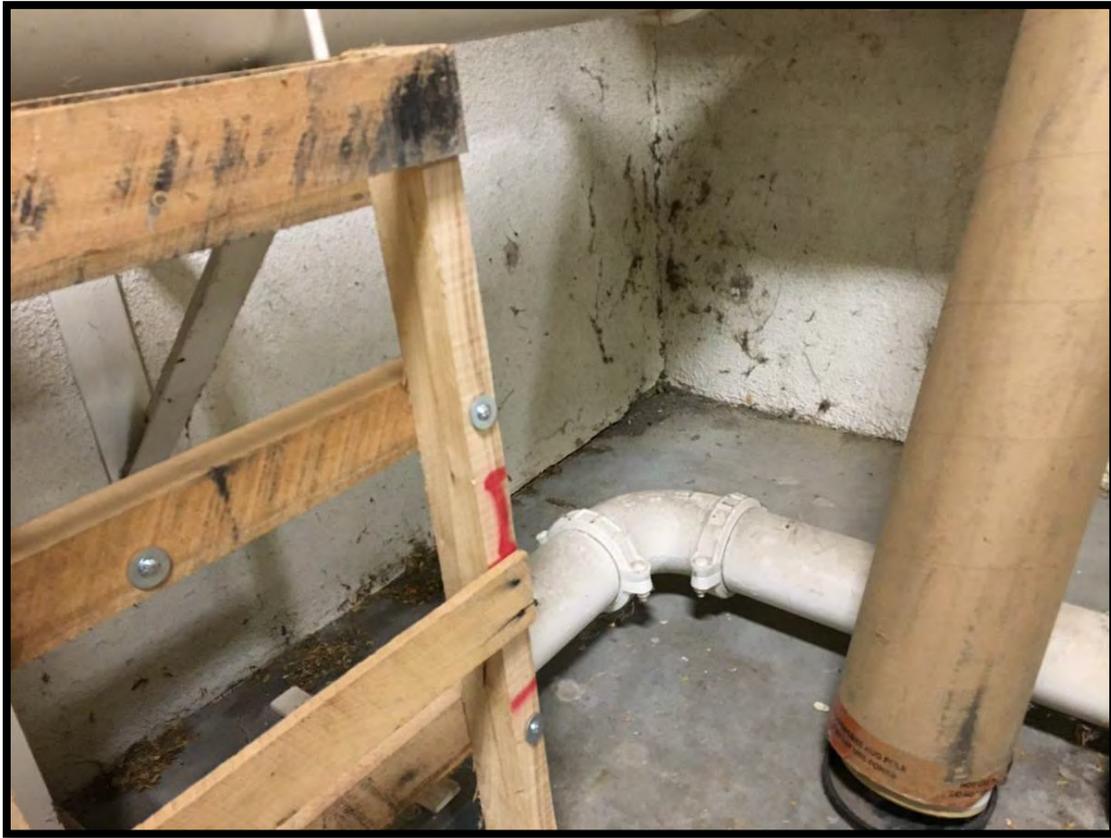


Picture 25, Aerobic Digester Concrete and Wall Cracks (Truck Sludge Loading)

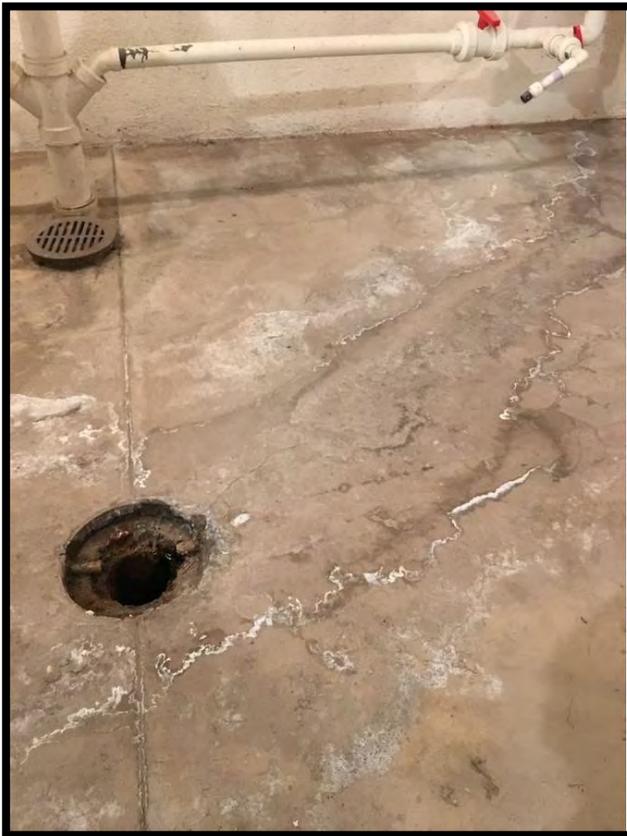


Picture 26 A&B, Aerobic Digester Concrete and Wall Cracks (Truck Sludge Loading)

Persigo WWTP Concrete Assessment Picture File

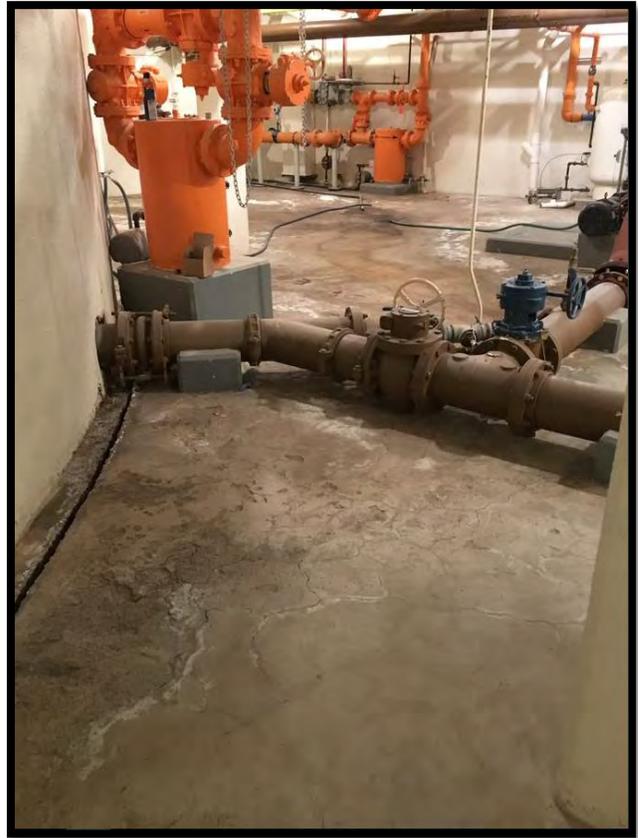


Picture 27, Aerobic Digester Basement Floor & Wall



Picture 28 A&B, Aerobic Digester Basement Floor and Wall

Persigo WWTP Concrete Assessment Picture File



Picture 29 A&B, Aerobic Digester Basement Floor & Wall



Picture 30, Anaerobic Digester Tank Wall

Persigo WWTP Concrete Assessment Picture File

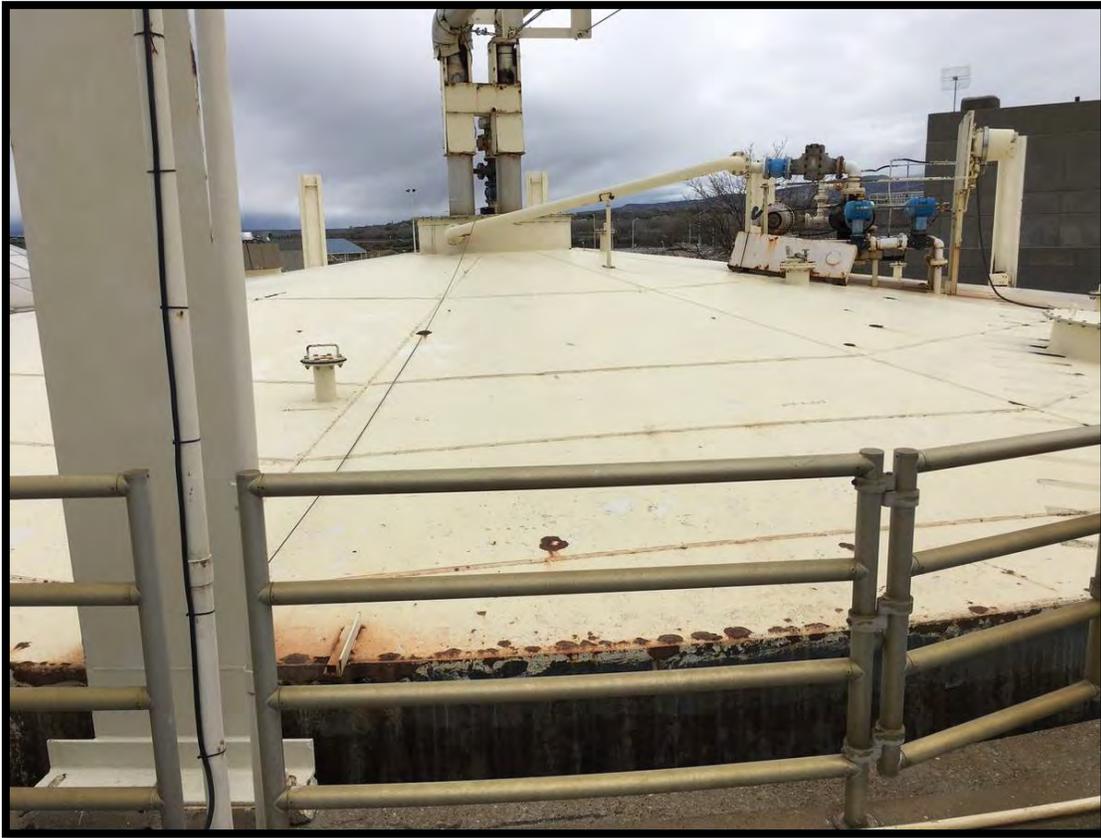


Picture 31, Anaerobic Digester Tank Wall



Picture 32, Anaerobic Digester Tank

Persigo WWTP Concrete Assessment Picture File



Picture 33 Anaerobic Digester Tank Roof (floating lid)



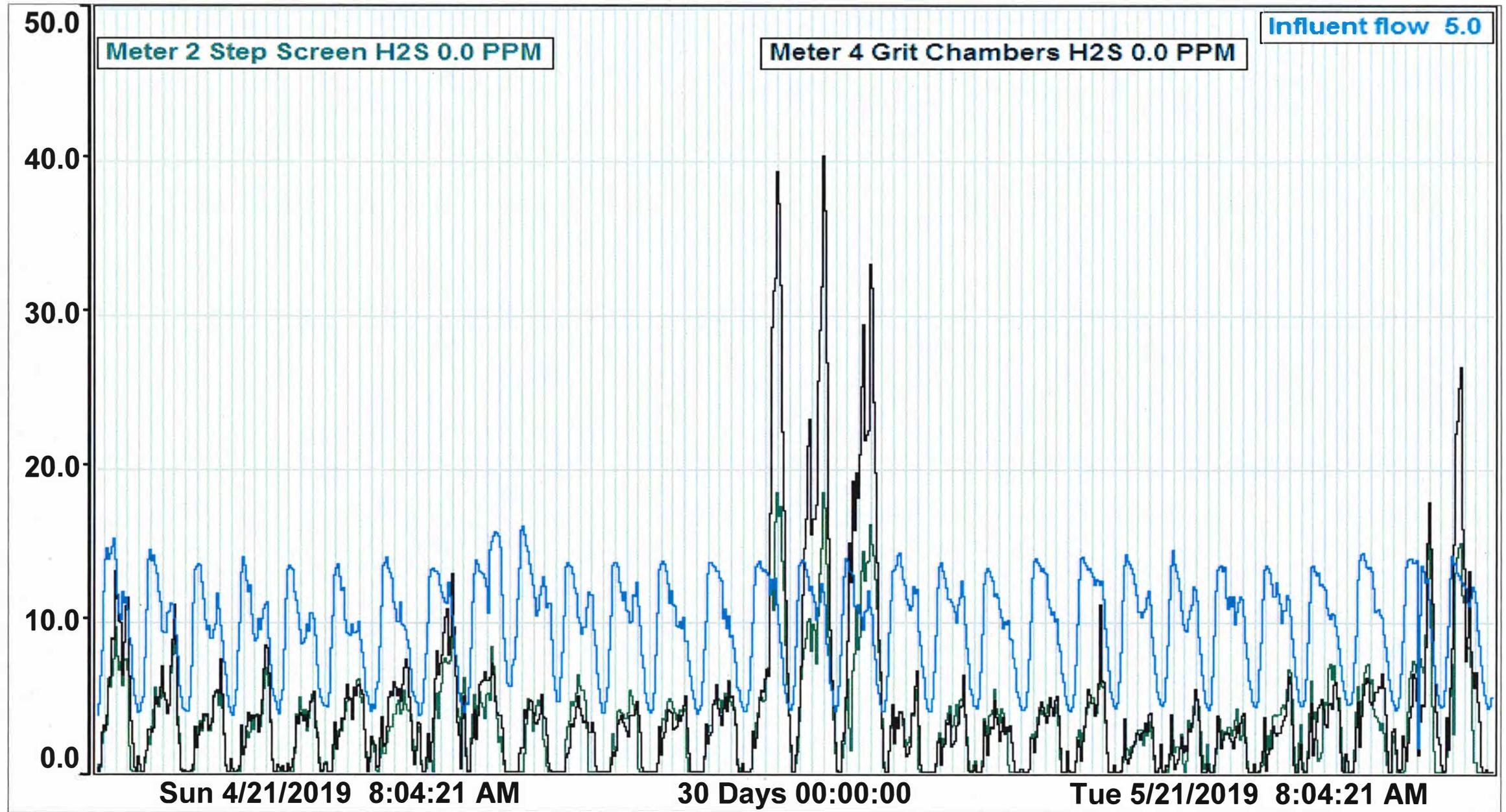
Picture 34, Top of Anaerobic Digester Digester Tank Wall

Attachment 4, Real Time H2S meter reading from the headworks for the last 30 days plotted against inflow rate

Meter 2 located at Step Screen

Meter 4 located at Grit Chamber

Note: Real Time graph shows a higher instantaneous H2S reading vs those averaged over a 12 hour data in the data table.



**Attachment 5, 12 hour H2S meter reading from the headworks for the last
30 days plotted against inflow rate
Meter 2 at Step Screen
Meter 4 at Grit Chamber**

	Meter 2 H2S Scaled	Meter 4 H2S Scaled	InfFlow Stabilize
Maximum Value	10.9	20.7	13
75th Percentile	3.5	3.8	11.325
Median Value	2.7	2.7	10.45
25th Percentile	2.075	2.075	7.875
Minimum Value	0.7	1.4	7.1
Average	3.227	4.088	9.613
Total Sum	193.6	245.3	576.8
Std. Deviation	2.087	4.128	1.816
4/21/2019 8:08:43 AM	4.6	5.9	11.4
4/21/2019 8:08:43 PM	2.8	4.7	7.7
4/22/2019 8:08:43 AM	3.5	3.6	11.3
4/22/2019 8:08:43 PM	3.6	3.8	7.5
4/23/2019 8:08:43 AM	2.4	2.4	10.6
4/23/2019 8:08:43 PM	2.6	2.9	7.4
4/24/2019 8:08:43 AM	2.1	2.4	10.5
4/24/2019 8:08:43 PM	2.8	3.3	7.6
4/25/2019 8:08:43 AM	1.7	1.7	10.5
4/25/2019 8:08:43 PM	2.4	2.4	7.4
4/26/2019 8:08:43 AM	2.7	2.9	10.4
4/26/2019 8:08:43 PM	3.4	3.4	7.1
4/27/2019 8:08:43 AM	2.2	3.4	10.8
4/27/2019 8:08:43 PM	3.4	4.1	7.3
4/28/2019 8:08:43 AM	2.6	4	10.7
4/28/2019 8:08:43 PM	5.8	6.1	7.8
4/29/2019 8:08:43 AM	3.8	4.1	11.5
4/29/2019 8:08:43 PM	2.3	2.5	11.1
4/30/2019 8:08:43 AM	2	2.6	13
4/30/2019 8:08:43 PM	1.4	1.8	9.3
5/1/2019 8:08:43 AM	3.6	2.5	11.1
5/1/2019 8:08:43 PM	0.7	1.4	7.9
5/2/2019 8:08:43 AM	2.7	2.1	11.3
5/2/2019 8:08:43 PM	1.5	1.8	7.9
5/3/2019 8:08:43 AM	3.1	2.4	11.4
5/3/2019 8:08:43 PM	1.7	1.9	7.2
5/4/2019 8:08:43 AM	3.1	2.9	11.3
5/4/2019 8:08:43 PM	2.7	2.7	7.2

**Attachment 5, 12 hour H2S meter reading from the headworks for the last
30 days plotted against inflow rate
Meter 2 at Step Screen
Meter 4 at Grit Chamber**

	Meter 2 H2S Scaled	Meter 4 H2S Scaled	InfFlow Stabilize
5/5/2019 8:08:43 AM	3.5	3.5	11.2
5/5/2019 8:08:43 PM	10.9	20.7	8.2
5/6/2019 8:08:43 AM	6.3	11.4	11.6
5/6/2019 8:08:43 PM	8.9	18	8.1
5/7/2019 8:08:43 AM	5.5	12.3	11.5
5/7/2019 8:08:43 PM	10.5	17.5	7.8
5/8/2019 8:08:43 AM	2.4	2.4	11.8
5/8/2019 8:08:43 PM	1.5	1.9	8
5/9/2019 8:08:43 AM	2.3	1.8	11.2
5/9/2019 8:08:43 PM	2.3	2.1	8
5/10/2019 8:08:43 AM	3.1	2.3	11.2
5/10/2019 8:08:43 PM	0.8	1.4	7.2
5/11/2019 8:08:43 AM	2.7	2.5	11.5
5/11/2019 8:08:43 PM	2	2.3	7.6
5/12/2019 8:08:43 AM	2.9	2.7	11.4
5/12/2019 8:08:43 PM	2.6	3	8.5
5/13/2019 8:08:43 AM	1.7	1.5	11.7
5/13/2019 8:08:43 PM	1.5	1.8	8
5/14/2019 8:08:43 AM	1.3	1.4	11.1
5/14/2019 8:08:43 PM	2.5	2	8.1
5/15/2019 8:08:43 AM	2.3	2	11.4
5/15/2019 8:08:43 PM	1.6	1.6	7.9
5/16/2019 8:08:43 AM	2.4	1.8	11.4
5/16/2019 8:08:43 PM	3.3	2.5	8
5/17/2019 8:08:43 AM	2.8	2.9	11.5
5/17/2019 8:08:43 PM	3.4	2.8	7.6
5/18/2019 8:08:43 AM	4.6	3.8	11.8
5/18/2019 8:08:43 PM	2	3.5	7.7
5/19/2019 8:08:43 AM	3.6	2.7	10.9
5/19/2019 8:08:43 PM	5.3	6.8	8.6
5/20/2019 8:08:43 AM	8.3	12.9	11.9
5/20/2019 8:08:43 PM	1.6	3.8	8.2