

Request for Proposal RFP-4792-20-DH

Design/Build Aeration Project for Juniata Reservoir

RESPONSES DUE:

May 5, 2020 Prior to 3:30 PM MDT

<u>Accepting Electronic Responses Only</u>

<u>Responses Only Submitted Through the Rocky Mountain E-Purchasing</u>

<u>System (RMEPS)</u>

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 <u>MUST</u> contact RMEPS to resolve issue prior to the response deadline. 800-835-4603)

PURCHASING REPRESENTATIVE:

Duane Hoff Jr., Senior Buyer duaneh@gicity.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 shall be 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 firms to design, provide, and install a new aeration system for Juniata Reservoir.
- **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 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.
- 1.5 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.gicity.org/business-and-economicdevelopment/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)
- **1.6 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.
- **1.7 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.
- **1.8** 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 Owner. 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 and http://www.gicity.org/business-and-economic-development/bids/ Offerors shall acknowledge receipt of all addenda in their proposal.

- 1.9 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 work contained herein.
- 1.10 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
- 1.11 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 section titled "Confidential Material". Disqualification of a proposal does not eliminate this right.
- **1.12 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.

- 1.13 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
- 1.14 Open Records: 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.
- **1.15 Sales Tax:** City of Grand Junction is, by statute, exempt from the State Sales Tax and Federal Excise Tax; therefore, all fees shall not include taxes.
- **1.16 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 Cover Letter by 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, 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 Contractor. By executing the contract, the Contractor represents that they have familiarized themselves with the local conditions under which the Work 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 work 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 Contractor shall secure and pay for all permits, fees and licenses necessary for the proper execution and completion of the work. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the work. If the Contractor observes that any of the Contract Documents are at variance in any respect, Contractor shall promptly notify the Owner in writing, and any necessary changes shall be adjusted by change order/amendment. If the Contractor performs any work knowing it to be contrary

- to such laws, ordinances, rules and regulations, and without such notice to the Owner, Contractor shall assume full responsibility and shall bear all costs attributable.
- **2.4.** Responsibility for those Performing the Work: The Contractor shall be responsible to the Owner for the acts and omissions of all their employees and all other persons performing any of the work under a contract with the Contractor.
- **2.5. Use of the Site:** The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment.
- **2.6. Cleanup:** The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by their operations. At the completion of work they shall remove all their waste materials and rubbish from and about the project, as well as all their equipment and surplus materials.
- 2.7. Payment & Completion: The Contract Sum is stated in the Contract and is the total amount payable by the Owner to the Contractor for the performance of the work under the Contract Documents. Upon receipt of written notice that the work 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 Owner finds the work 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 Contractor, of the value of Work performed and materials placed in accordance with the Contract Documents.
- 2.8. Performance & Payment Bonds: Contractor shall furnish a Performance and a Payment Bond, each in an amount at least equal to that specified for the contract amount as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These bonds shall remain in effect for the duration of the Warranty Period (as specified in the Special Conditions). Contractor shall also furnish other bonds that may be required by the Special Conditions. All bonds shall be in the forms prescribed by the Contract Documents and be executed by such sureties as (1) are licensed to conduct business in the State of Colorado and (2) are named in the current list of "Companies" Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Accounts, U.S. Treasury Department. All bonds singed by an agent must be accompanied by a certified copy of the Authority Act. If the surety on any bond furnished by the Contractor is declared bankrupt, or becomes insolvent, or its rights to do business in Colorado are terminated, or it ceases to meet the requirements of clauses (1) and (2) of this section, Contractor shall within five (5) days thereafter substitute another bond and surety, both of which shall be acceptable to the City.
- **2.9. Retention:** The Owner will deduct money from the partial payments in amounts considered necessary to protect the interest of the Owner and will retain this money until after completion of the entire contract. The amount to be retained from partial payments will be five (5) percent of the value of the completed work, and not greater than five (5) percent of the amount of the Contract. When the retainage has reached five (5) percent of the amount of the Contract no

further retainage will be made and this amount will be retained until such time as final payment is made.

2.10. Liquidated Damages for Failure to Meet Project Completion Schedule: If the Contractor does not achieve Final Completion by the required date, whether by neglect, refusal or any other reason, the parties agree and stipulate that the Contractor shall pay liquidated damages to the City for each such day that final completion is late. As provided elsewhere, this provision does not apply for delays caused by the City. The date for Final Completion may be extended in writing by the Owner.

The Contractor agrees that as a part of the consideration for the City's awarding of this Contract liquidated damages in the daily amount of \$500.00 is reasonable and necessary to pay for the actual damages resulting from such delay. The parties agree that the real costs and injury to the City for such delay include hard to quantify items such as: additional engineering, inspection and oversight by the City and its agents; additional contract administration; inability to apply the efforts of those employees to the other work of the City; perceived inefficiency of the City; citizens having to deal with the construction and the Work, rather than having the benefit of a completed Work, on time; inconvenience to the public; loss of reputation and community standing for the City during times when such things are very important and very difficult to maintain.

The Contractor must complete the Work and achieve final completion included under the Bid Schedule in the number of consecutive calendar days after the City gives is written Notice to Proceed. When the Contractor considers the entire Work ready for its intended use, Contractor shall certify in writing that the Work is substantially complete. In addition to the Work being substantially complete, Final Completion date is the date by which the Contractor shall have fully completed all clean-up, and all items that were identified by the City in the inspection for final completion. Unless otherwise stated in the Special Conditions, for purposes of this liquidated damages clause, the Work shall not be finished and the Contract time shall continue to accrue until the City gives its written Final Acceptance.

If the Contractor shall fail to pay said liquidated damages promptly upon demand thereof after having failed to achieve Final Completion on time, the City shall first look to any retainage or other funds from which to pay said liquidated damages; if retainage or other liquid funds are not available to pay said liquidated damages amounts, the Surety on the Contractor's Performance Bond and Payment Bond shall pay such liquidated damages. In addition, the City may withhold all, or any part of, such liquidated damages from any payment otherwise due the Contractor.

Liquidated damages as provided do not include any sums to reimburse the City for extra costs which the City may become obligated to pay on other contracts which were delayed or extended because of the Contractor's failure to complete the Work within the Contract Time. Should the City incur additional costs because of delays or extensions to other contracts resulting from the Contractor's failure of timely performance, the Contractor agrees to pay these costs that the City incurs because of the Contractor's delay, and these payments are separate from and in addition to any liquidated damages.

The Contractor agrees that the City may use its own forces or hire other parties to obtain Substantial or Final Completion of the work if the time of completion has elapsed and the

Contractor is not diligently pursuing completion. In addition to the Liquidated Damages provided for, the Contractor agrees to reimburse the City for all expenses thus incurred.

- 2.11. Contingency/Force Account: Contingency/Force Account work will be authorized by the Owner's Project Manager and is defined as minor expenses to cover miscellaneous or unforeseen expenses related to the project. The expenses are not included in the Drawings, Specifications, or Scope of Work and are necessary to accomplish the scope of this contract. Contingency/Force Account Authorization will be directed by the Owner through an approved form. Contingency/Force Account funds are the property of the Owner and any Contingency/Force Account funds, not required for project completion, shall remain the property of the Owner. Contractor is not entitled to any Contingency/Force Account funds, that are not authorized by Owner or Owner's Project Manager.
- 2.12. Protection of Persons & Property: The Contractor 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. Contractor 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 Contractor in the execution of the work, or in consequence of the non-execution thereof by the Contractor, 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.
- 2.13. Changes in the Work: The Owner, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions or other revisions. All such changes in the work shall be authorized by Change Order and shall be executed under the applicable conditions of the contract documents. A Change Order is a written order to the Contractor signed by the Owner issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time.
- **2.14. Minor Changes in the Work:** The Owner shall have authority to order minor changes in the work 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.
- 2.15. Uncovering & Correction of Work: The Contractor shall promptly correct all work found by the Owner as defective or as failing to conform to the contract documents. The Contractor shall bear all costs of correcting such rejected work, including the cost of the Owner's additional services thereby made necessary. The Owner shall give such notice promptly after discovering of condition. All such defective or non-conforming work under the above paragraphs shall be removed from the site where necessary and the work shall be corrected to comply with the contract documents without cost to the Owner.
- **2.16.** Acceptance Not Waiver: The Owner's acceptance or approval of any work furnished hereunder shall not in any way relieve the proposer of their present responsibility to

maintain the high quality, integrity and timeliness of his work. 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.

- **2.17. 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 change orders/amendments to the contract shall be made in writing by the Owner Purchasing Division.
- **2.18. 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.
- 2.19. 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. Contractor 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.
- **2.20. Debarment/Suspension:** The Contractor herby certifies that the Contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Governmental department or agency.
- **2.21. Confidentiality:** All information disclosed by the Owner to the Contractor for the purpose of the work to be done or information that comes to the attention of the Contractor during the course of performing such work is to be kept strictly confidential.
- **2.22. Conflict of Interest**: No public official and/or Owner employee shall have interest in any contract resulting from this RFP.
- **2.23. 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.
- **2.24. Project Manager/Administrator:** The Project Manager, on behalf of the Owner, shall render decisions in a timely manner pertaining to the work 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 Work.
- **2.25.** Cancelation of Solicitation: Any solicitation may be canceled by the Owner or any solicitation response by a vendor may be rejected in whole or in part when it is in the best interest of the Owner.
- 2.26. 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.

- **2.27. Employment Discrimination:** During the performance of any services per agreement with the Owner, the Offeror, by submitting a Proposal, agrees to the following conditions:
 - 2.27.1. 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.
 - **2.27.2.** 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.
 - **2.27.3.** 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.
- **2.28.** 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 workers 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).
- **2.29. 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.
- **2.30.** 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.
- **2.31. 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.
- **2.32. 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.
- **2.33. 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, subcontractor 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.

- 2.34. 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.
- **2.35. Ownership:** All plans, prints, designs, concepts, etc., shall become the property of the Owner
- **2.36. 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.
- 2.37. 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.
- **2.38. Remedies**: The Offeror and Owner agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.
- **2.39. 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.
- **2.40.** 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.
- **2.41. 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.
- 2.42. 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.

- 2.43. 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.
- **2.44. Gratuities:** The Contractor 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 Contractor breaches or violates this warranty, the Owner may, at their discretion, terminate this contract without liability to the Owner.
- **2.45. OSHA Standards:** All Offerors agree and warrant that services performed in response to this invitation shall conform to the standards declared by the US Department of Labor under the Occupational Safety and Health Act of 1970 (OSHA). In the event the services do not conform to OSHA Standards, the Owner may require the services to be redone at no additional expense to the Owner.
- **2.46. 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.
- **2.47. Benefit Claims:** The Owner shall not provide to the Contractor any insurance coverage or other benefits, including Worker's Compensation, normally provided by the Owner for its employees.
- **2.48. Default:** The Owner reserves the right to terminate the contract immediately in the event the Contractor 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 Contractor.
- **2.49. Multiple Offers:** Proposers must determine for themselves which product or service to offer. 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.
- 2.50. 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.

2.51. Definitions:

- **2.51.1.** "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.
- **2.51.2.** The term "Work" includes all labor, materials, equipment, and/or services necessary to produce the requirements of the Contract Documents.
- 2.51.3. "Contractor" is the person, organization, firm or consultant identified as such in the Agreement and is referred to throughout the Contract Documents. The term Contractor means the Contractor or his authorized representative. The Contractor shall carefully study and compare the General Contract Conditions of the Contract, Specification and Drawings, Scope of Work, Addenda and Modifications and shall at once report to the Owner any error, inconsistency or omission he may discover. Contractor shall not be liable to the Owner for any damage resulting from such errors, inconsistencies or omissions. The Contractor shall not commence work without clarifying Drawings, Specifications, or Interpretations.
- **2.51.4.** "Sub-Contractor is a person or organization who has a direct contract with the Contractor to perform any of the work at the site. The term sub-contractor is referred to throughout the contract documents and means a sub-contractor or his authorized representative.
- **2.52. Public Disclosure Record:** If the Proposer has knowledge of their employee(s) or subproposers 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.
- 2.53. Keep Jobs in Colorado Act: Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a). If Contractor claims it is entitled to a waiver pursuant to C.R.S. §8-17-101(1), Contractor shall state that there is insufficient Colorado labor to perform the work such that compliance with Article 17 would create an undue burden that would substantially prevent a project from proceeding to completion, and shall include evidence demonstrating the insufficiency and undue burden in its response.

Unless expressly granted a waiver by the Owner pursuant to C.R.S. §8-17-101(1), Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a).

2.53.1. "Public Works project" is defined as:

- (a) any construction, alteration, repair, demolition, or improvement of any land, building, structure, facility, road, highway, bridge, or other public improvement suitable for and intended for use in the promotion of the public health, welfare, or safety and any maintenance programs for the upkeep of such projects
- (b) for which appropriate or expenditure of moneys may be reasonably expected to be \$500,000.00 or more in the aggregate for any fiscal year
- (c) except any project that receives federal moneys.

SECTION 3.0: INSURANCE REQUIREMENTS

Insurance Requirements: The selected Contractor 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 Contractor pursuant to this Section. Such insurance shall be in addition to any other insurance requirements imposed by this Contract or by law. The Contractor 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. Contractor shall procure and maintain and, if applicable, shall cause any Subcontractor of the Contractor to procure and maintain insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to the Owner. 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:

- (a) Worker Compensation: Contractor shall comply with all State of Colorado Regulations concerning Workers' Compensation insurance coverage.
- (b) General Liability insurance with minimum 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 and 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 hazards. The policy shall contain a severability of interests provision.

(c) Comprehensive Automobile Liability insurance with minimum 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 contractor against liability incurred as a result of the professional services performed as a result of responding to this Solicitation.

With respect to each of Contractors owned, hired, or non-owned vehicles assigned to be used in performance of the Work. The policy shall contain a severability of interests provision. The policies required by paragraph (b) 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 Bidder. No additional insured endorsement to any required policy shall contain any exclusion for bodily injury or property damage arising from completed operations. The Bidder shall be solely responsible for any deductible losses under any policy required above.

SECTION 4.0: SPECIFICATIONS/SCOPE OF SERVICES

4.1. General/Background: Juniata Reservoir serves as the City's primary storage reservoir with a capacity of 7,291 acre feet. The original Juniata Reservoir provided for the storage of 400 acre feet and was built in 1911. There have been several enlargements made, most recently in 2008, which have expanded it to its current capacity. Historically, water was drawn from the bottom of Juniata Reservoir to fill Purdy Mesa Reservoir, which then fed the pipeline to the City of Grand Junction's water treatment plant. In the late 1980's, in order to improve



source water quality to the treatment plant, this pipeline was extended to connect to Juniata Reservoir as well and an outlet was installed at the mid-level of the reservoir.

The City initiated a reservoir monitoring program in 2002. Water quality data collected suggests that dissolved oxygen levels (DO) in Juniata Reservoir's hypolimion have been steadily decreasing and the onset of anoxia is gradually commencing earlier in the summer. This decrease in DO has led to increasing manganese and phosphorus levels. The City's Water Treatment Plant is a direct filtration plant, so issues such as algae blooms and manganese removal, which are related to decreased DO levels, pose a greater challenge than with conventional filtration.

To mitigate these issues associated with the seasonal depletion of DO, the City of Grand Junction plans to have an aeration system installed in Juniata Reservoir during early summer, 2020. This aeration system will be supplied by an onsite liquid oxygen system (LOX).

Juniata Reservoir is located about 8 miles southwest of Whitewater, Coloardo in Mesa County.

4.2 Project Objectives: The scope of work for this project consists of designing, furnishing all

materials, equipment, appurtenances, tools, labor, and everything else necessary for completing the Juniata Reservoir Aeration Project. The main elements of work consist of designing and installing a linear diffuser within Juniata reservoir and connecting this system to the customer service connection (valve) located at the LOX (liquid oxygen) storage facility. The new LOX storage and feed facility will consist of a 9,000-gallon horizontal bulk oxygen tank, vaporizers, and associated piping, valves, and flow meter. Additionally, the work includes the materials necessary for and the installation of a pipeline that will deliver the gaseous oxygen from the feed facility to the linear diffuser within the reservoir. Final completion date shall be June 30, 2020. The linear diffuser shall be designed and sized to maintain DO levels of at least 5.0 mg/L throughout the water column in Juniata Reservoir. The City will conduct regular DO profiles at the deepest point of the reservoir as shown on the map below. Should the profiles show the aeration system is unable to achieve a minimum DO level of 5.0 mg/L during the 2021 season, the contractor would be responsible for making the appropriate modifications in order to achieve these targets

City of Grand Junction LOX Feed Station

Grand Junction LOX Feed S

Design of the system layout and construction and connection of the aeration system to the LOX shall be coordinated with the LOX provider. Target date to have the system delivered and installed is July 17, 2020.

4.2. Special Conditions/Provisions:

4.2.1 Licenses and Permits: Contractor is responsible for obtaining all necessary licenses and permits required for Construction, at Contractors expense. See Section 2.3

- **4.2.2 Freight/Shipping:** All freight/shipping shall be F.O.B. Destination Freight Prepaid and allowed. Staging area provided at 333 West Ave, Grand Junction, CO 81501. Final location of approximately 39 5'26.072" N Lat 108 13"26.407" W Lon.
- **4.2.3 Price:** Project pricing shall be all inclusive, to include, but not be limited to: labor, materials, equipment, travel, design, drawings, engineer work, supplies, shipping/freight, licenses, permits, fees, etc.

All prices shall be "F.O.B. Destination Freight Pre-Paid and Allowed". The Owner shall not pay nor be liable for any other additional costs including but not limited to: taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc.

Contract shall be established as "Cost Plus a Fixed Fee". Contractor shall submit their Fixed Fee utilizing the attached form in Section 7.0 Solicitation Response Form.

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

- **4.2.4 Warranty:** Contractor shall submit manufacturer warranty information for Owner's approval, prior to product ordering. Additionally, Contractor shall provide a minimum 1 year Contractors warranty.
- **4.2.5 Codes:** Contractor shall ensure that project meets all Federal, State, County, and City Codes.
- **4.2.6 Working Schedule:** <u>Time is of the essence with this project.</u> Working schedule shall be Monday Sunday from 7:00am-7:00pm.
- **4.2.7 Time of Completion:** The scheduled time of Completion for the Project shall be no later than July 17, 2020.
- **4.2.8 Contract:** A binding contract shall consist of: (1) the IFB and any amendments thereto, (2) the bidder's response (bid) to the IFB, (3) clarification of the bid, if any, and (4) the City's Purchasing Department's acceptance of the bid by "Notice of Award" or by "Purchase Order". All Exhibits and Attachments included in the IFB shall be incorporated into the contract by reference.
- A. The contract expresses the complete agreement of the parties and, performance shall be governed solely by the specifications and requirements contained therein.
- B. Any change to the contract, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the bidder and the City Purchasing Division or by a modified Purchase Order prior to the effective date of such modification. The bidder expressly and explicitly understands and agrees that no other method and/or no other document, including acts and oral communications by or from any person, shall be used or construed as an amendment or modification to the contract.

- **4.2.9 Plans/Drawings:** Contractor shall provide Conceptual *or* 30% plans/drawings with their proposal response. The awarded Contractor shall provide full plans/drawings no later than June 19, 2020.
- **4.2.10 CITY PROJECT MANAGER:** The Project Manager for the Project is Mark Ritterbush Water Services Manager, who can be reached at (970)256-4185. <u>During Construction</u>, all notices, letters, submittals, and other communications directed to the City shall be addressed and mailed or delivered to:

City of Grand Junction Department of Public Works and Planning Attn: Mark Ritterbush, Project Manager 244 26 ¼ Road Grand Junction, CO 81503

- **4.2.11 Laws, Codes, Rules, and Regulations:** Contractor shall ensure that all services provide meet all Federal, State, County, and City laws, codes, rules, and regulations.
- **4.3. Specifications/Scope of Services:** The general scope of services to be obtained as a result of this RFP includes all preconstruction and Construction Services required for successful completion of the project.

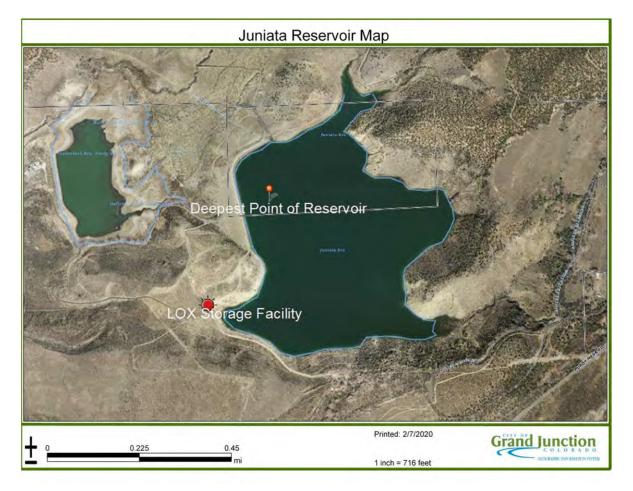
LINEAR DIFFUSER

1.01 References:

- A. The following is a list of standards which may be referenced in this Section:
 - 1. Compressed Gas Association (CGA):
 - a. G-4.1, Cleaning Equipment for Oxygen Service, latest edition.
 - b. G-4.4, Industrial Practices for Gaseous Oxygen Transmission and Distribution Piping Systems.

1.02 DESIGN REQUIREMENTS

- A. The linear diffusers shall be provided by a qualified linear diffuser installer (LDI).
- B. The system shall be designed to deliver gaseous oxygen uniformly to the deep section of the reservoir while suspended from the reservoir bottom.
- C. Provide an anchoring system to maintain the linear diffuser at the desired depth. The linear diffuser shall include a floatation system designed to sink the linear diffuser into position or float the linear diffuser to the surface using compressed air or gaseous oxygen. The linear diffuser shall be completely serviceable from the surface.
- D. The linear diffusers shall be sized to accommodate intermittent and variable flow, as well as constant flow. The linear diffuser shall be sized to accommodate an oxygen demand ranging from zero to 100 percent of the maximum flow defined herein.
- E. Map below shows deepest portion of Juniata Reservoir with respect to the proposed location of the LOX Storage Facility. Linear distance is approximately 2100 feet.



F. Linear diffuser must be capable of maintaining DO levels of at least 5.0 mg/L throughout the water column in the reservoir.

1.03 SUBMITTALS

A. Action Submittals:

- 1. LDI (Linear Diffuser Installer) qualifications.
- 2. Shop Drawings:
 - a. Details of linear diffuser construction, fabrication, and materials.
- b. Detailed procedures to be used in fabricating, storing, and installing the linear diffuser.
 - c. Linear diffusers testing procedures.
 - d. Line diffusers cleaning procedures.
 - e. Complete drawings and data to describe the overall system and indicate full compliance with these Specifications. As a minimum, this shall include a piping diagram, and data sheets or catalog cuts on all system components.
 - f. Complete headloss and orifice calculations for oxygen gas flow through the diffuser.

B. Informational Submittals:

- 1. Manufacturer's Certificate of Compliance.
- 2. Manufacturer's Certificate of Proper Installation.

- 3. Written test reports of each test and inspection.
- 4. Operation and Maintenance Data.

1.04 QUALITY ASSURANCE

A. LDI Qualifications:

- 1. Contractor shall be an LDI or subcontract with an LDI that is regularly engaged in the assembly and installation of linear diffuser hypolimnetic oxygenation systems; and who shall employ only tradesmen with specific skill and experience in this type of work.
- 2. The LDI shall have a minimum of 5 years of experience in the assembly and installation of linear diffusers of equal or greater length used to deliver gaseous oxygen to reservoirs or lakes of equal or greater depth. The LDI shall show evidence of satisfactory service in at least five installations.
- 3. The Contractor shall submit the name and qualifications of the LDI.

1.05 EXTRA MATERIALS

A. Furnish all tools and spare parts for the normal operation and maintenance of the equipment.

PART 2 PRODUCTS

2.01 GENERAL

- A. All components and subsystems of the linear diffuser shall be constructed in a safe and accessible manner, complying with the local, State of Colorado, and national codes and requirements.
- B. The sizing information for the line diffuser specified herein is based on preliminary information that should not supercede information gathered during the design process
- C. The line diffuser shall be capable of continuous operation at a constant oxygen flow rate under the following conditions; the maximum depth of Juniata Reservoir is 79 feet when at capacity:

Maximum Flow Rate (SCFH) = 3920 Average Flow Rate (SCFH) = 2200

Minimum /flow Rate (SCFH) = 100

- D. The linear diffuser shall be suspended 2 to 2.5 feet above the sediment/water interface at the reservoir bottom by the buoyancy provided by the oxygen supply line.
- E. Type 304 stainless steel cable with a minimum break strength of 900 pounds and a 7 by 7 strand construction shall be used to tether the diffuser assembly to the anchors.
- F. The buoyancy pipe shall be designed to allow flotation and retrieval of the entire linear diffuser assembly by filling the buoyancy pipe with oxygen or compressed air.
- G. The anchoring system shall be sufficient to prevent the linear diffuser from moving in the reservoir.
- H. The oxygen supply pipe and buoyancy pipe, shall be fastened together at regular intervals with marine grade worm screw clamps.

- I. The orifice and porous hose assembly shall be designed to deliver an equal flow of oxygen across the entire length of linear diffuser that is equipped with porous hose.
- J. The porous hose shall have been shown to obtain standard oxygen transfer efficiency of over 50 percent using air in 80 feet of water depth by an independent laboratory.
- K. All piping, valves, valve seats, seals, gaskets, welds and all associated appurtenances to be used with oxygen, must be resistant to degradation from gaseous oxygen.
- L. Greases and lubricants shall be oxidation resistant and oxygen safe, DuPont "Krytox," or equal.

PART 3 EXECUTION

3.01 INSTALLATION

A. Linear Diffuser:

- Diffuser assembly shall occur on land. Prior to final installation, diffuser assemblies may be stored on the water surface by floating the assembly near the shoreline bank where assembled during construction. The diffuser assembly shall be anchored securely to the shoreline to prevent damage.
- 2. Upon completion of the assembly, the diffuser will be floated from the construction site to the location.
- 3. The diffuser shall be positioned along the bottom ensuring proper location. Positioning will be executed using sonar or other underwater topographical mapping equipment such as Lowrance, or equivalent. Prior to positioning, the LDI, shall identify and mark the bottom channel so the locations are visible from the surface. Once the bottom locations are identified, the linear diffuser will be moved into position over the channel and secured with appropriate lines and mooring at the beginning, turns or locations where the linear diffuser has to follow the bottom contour, and end. Once in position and secured, slowly flood the buoyancy line to sink the linear diffuser. Monitor the position of the diffuser as it sinks to ensure proper positioning when it reaches the bottom. Once the entire linear diffuser is resting on the bottom, the LDI with the engineer shall inspect and evaluate the diffuser position to ensure optimal placement in the deepest section of the reservoir. In the event that the diffuser is not positioned properly, the diffuser shall be raised, repositioned, sunk again, and re-evaluated.

3.02 CLEANING

A. All equipment, piping, valves, instrumentation, and accessories in oxygen service shall be cleaned in compliance with the Compressed Gas Association (CGA) Pamphlet G4.1, "Cleaning Equipment for Oxygen Service," latest edition. For items cleaned prior to shipment to the construction site, they shall be properly packaged for protection from contamination. Provide directions for storage at the site prior to installation. Pre-cleaned items shall not require further cleaning after installation only if they meet the requirements of the CGA.

3.03 FIELD TESTING

A. Linear Diffuser:

 The oxygen supply system shall be operated at rated capacity and oxygen flow and pressure measured with onsite instrumentation to assure adequate supply and oxygen flow is being delivered to the reservoir.

- 2. The diffuser shall demonstrate correct bubble patterns once in position on along the bottom when operated and visually observed during calm conditions. No large leaks or dead spots shall be evident on the surface.
- 3. Document the results of the diffuser testing and submit to the Engineer for acceptance and approval.

3.04 TRAINING

A. Provide startup, operations, and maintenance training for Owner at a time agreed upon by Linear Diffuser supplier and Owner.

Attached Documents:

- 1. Juniata Reservoir Depth Survey
- 2. Juniata Reservoir Manganese Data 2012-2019
- 3. Juniata Reservoir Profiles 2017-2019
- 4. Water Supply (Inflow/Outflow) Reports 2017-2019

4.4. RFP Tentative Time Schedule:

Request for Proposal Available
Inquiry deadline, no questions after this date
Addendum Posted
Submittal deadline for proposals
Owner evaluation of proposals
Interviews (if required)
Final selection

April 15, 2020
April 27, 2020
May 5, 2020
May 6 – 13, 2020
May 19, 2020
May 20, 2020

City Council Approval (if required)

Contract execution

Work beginsCompletion Date

June 8, 2020 Upon Notice to Proceed July 17, 2020

June 7, 2020

4.5. 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 Rockv Mountain E-Purchasing (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" http://www.gjcity.org/business-and-economic-development/bids/ 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. 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 **G**.

- 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 Contractor 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.** Plans/Drawings: Contractor shall provide conceptual or 30% plans/drawings with their proposal response.
- **E. 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.
- F. Fee Proposal: <u>Contract shall be established as "Cost Plus a Fixed Fee. Contractor shall submit their Fixed Fee utilizing the attached form in Section 7.0 Solicitation Response Form.</u>
- **G.** 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
 - (Firm has submitted a proposal that is fully comprehensive, inclusive, and conforms in all respects to the Request for Proposals (RFP) and all of its requirements, including all forms and substance.)
- Understanding of the Project and Objectives
 - (Firm's ability to demonstrate a thorough understanding of the City's goals pertaining to this specific project.)
- Experience
 - (Firm's proven proficiency in the successful completion of similar projects.)
- Necessary Resources/Capability
 - (Firm has provided sufficient information proving their available means to perform the required scope of work/service; to include appropriate bonding, insurance an all other requirements necessary to complete the project.)
- Strategy & Implementation Plan
 - (Firm has provided a clear interpretation of the City's objectives in regard to the project, and a fully comprehensive plan to achieve successful completion. See Section 5.0 Item C. Strategy and Implementation Plan for details.)
- References
 - (Proof of performance in projects of similar scope and size from previous clients. See Section 5.0 Item E References.)
- Fees
- (All fees associated with the project are provided complete, comprehensive, and reasonable.)

Owner also reserves the right to take into consideration past performance of previous awards/contracts with the Owner of any vendor, contractor, 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.

- **Oral Interviews:** The Owner may invite the most qualified rated proposers to participate in oral interviews.
- **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 Contractor.

SECTION 7.0: SOLICITATION RESPONSE FORM RFP-4792-20-DH

"Design/Build Aeration Project for Juniata Reservoir" Offeror must submit entire Form completed, dated and signed.

1) Total " <u>Fixed Fee</u> ", per scope/specifi	cations:
TOTAL \$	
WRITTEN:	dollars.
	ny portion of the work to be performed at its discretion
The undersigned has thoroughly examined the er and schedule of fees and services attached here	ntire Request for Proposals and therefore submits the proposal to.
This offer is firm and irrevocable for sixty (60) day	ys after the time and date set for receipt of proposals.
	ces and products in accordance with the terms and conditions scribed in the Offeror's proposal attached hereto; as accepted
Prices in the proposal have not knowingly been of	disclosed with another provider and will not be prior to award.
 agreement for the purpose of restricting of the No attempt has been made nor will be to purpose of restricting competition. The individual signing this proposal certification the offeror and is legally responsible for provided. Direct purchases by the City of Grand Julexempt No. 98-903544. The undersigne be added to the above quoted prices. City of Grand Junction payment terms should be prompt payment discount of per is paid within days after the RECEIPT OF ADDENDA: the undersigned Cor 	es they are a legal agent of the offeror, authorized to represent the offer with regard to supporting documentation and prices unction are tax exempt from Colorado Sales or Use Tax. Tax d certifies that no Federal, State, County or Municipal tax will all be Net 30 days.
Specifications, and other Contract Documents. State number of Addenda received:	
	—· 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



	Juniata Res Bottom	Juniata Res 45' (mid)
8/3/2012	0.02	
8/28/2012	0.045	
10/4/2012	0.342	
12/7/2012	0.015	
1/17/2013	0.142	
2/13/2013	0.026	
7/31/2016	0.046	
8/20/2013	0.04	
9/5/2013	0.037	
10/8/2013	0.106	0.003
11/5/2013	0.168	0.003
2/25/2014	1	
3/5/2014	2.013	
4/2/2014	0.008	
5/6/2014	0.034	
6/4/2014	0.034	
7/11/2014	0.052	
8/7/2014	0.357	
9/12/2014	0.125	
10/15/2014	0.123	
11/13/2014	0.183	
12/10/2014	0.183	
1/19/2014	0.274	0.013
6/8/2016	0.078	0.013
7/20/2016	0.078	0.012
8/9/2016	0.007	
9/23/2016	0.079	0.05
5/3/2017	0.035	0.042
6/16/2017	0.045	0.042
6/19/2017	0.043	
6/27/2017	0.088	0.03
7/5/2017	0.069	0.032
7/13/2017	0.052	0.032
7/14/2017	0.032	0.022
7/19/2017	0.058	0.023
7/28/2017	0.093	0.023
8/9/2017	0.068	0.022
8/16/2017	0.107	0.028
8/23/2017	0.149	0.052
9/8/2017	0.149	0.032
9/21/2017	0.229	0.024
10/3/2017	0.229	0.043
10/3/2017	0.207	0.054
11/7/2017	0.217	0.034
11/7/2017	0.022	0.033
3/6/2018	0.022	0.019
3/0/2018	0.021	0.022

3/28/2018	0.02	0.016	
4/11/2018	0.024	0.021	
5/23/2018	0.024	0.014	
6/1/2018	0.037	0.014	
6/14/2018	0.065	0.018	
7/4/2018	0.09	0.02	
7/13/2018	0.075	0.022	
7/26/2018			
7/31/2018	0.037	0.022	
8/24/2018	0.117	0.02	
8/30/2018	0.071	0.024	
9/20/2018	0.248	0.012	
9/28/2018	0.326	0.025	
10/26/2018	0.384	0.016	
11/14/2018	0.042	0.038	
4/3/2019	0.036	0.031	*Sampled while lines being flushed
4/18/2019	0.018	0.012	
5/29/2019	0.104	0.019	
6/27/2019	0.074	0.02	
7/16/2019	0.076	0.026	
8/6/2019	0.095	0.035	
8/23/2019		0.038	
8/28/2019	0.239	0.048	
9/4/2019	0.203	0.087	
9/12/2019	0.132	0.078	
9/18/2019	0.224	0.034	
10/1/2019	0.041	0.017	
10/16/2019	0.356	0.017	
10/24/2019	0.364	0.007	
11/5/2019	0.084	0.044	
, -,			

Juniata Reservoir Profiles 2018

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
1/17/2018		205.0	-1.000	7.41	0.8		9.74
1/17/2018		205.0	-2.000	7.63			10.09
1/17/2018		205.0	-3.000	7.68	0.9	1.1	10.17
1/17/2018			-4.000	7.74			10.23
1/17/2018		205.0	-5.000	7.73	1.0	2.5	10.17
1/17/2018		205.0	-6.000	7.72			10.18
1/17/2018			-7.000	7.75			10.01
1/17/2018		205.0	-8.000	7.75	1.0	1.3	10.04
1/17/2018		205.0	-9.000	7.73			10.09
1/17/2018		205.0	-10.000	7.74	1.0	1.1	10.12
1/17/2018		206.0	-11.000	7.75	1.0	1.4	10.08
1/17/2018	2.96	205.0	-12.000	7.76	1.0	1.6	10.09
1/17/2018	2.97	206.0	-13.000	7.76	1.1	1.3	10.10
1/17/2018	2.98	206.0	-14.000	7.77	0.9	1.5	10.04
1/17/2018	3.01	206.0	-16.000	7.96	1.1	1.1	10.00
1/17/2018	3.05	206.0	-17	7.97	1.1	1.1	9.96
1/17/2018	3.07	206	-18	7.98	1.1	0.6	9.89
1/17/2018	3.08	207	-19	7.72	0.9	0.8	9.85
1/17/2018	3.13	208	-20	7.73	0.9	1.1	9.74
1/17/2017	3.14	208	-21	7.75	0.9	0.9	9.7
1/17/2018	3.19	208	-22	7.75			9.39
	_						
DateTime	Temp	SpCond	Depth	pН	Turbidity	Chlorophyl	
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
3/6/2018	2.79	206.0	-1.000	7.63	1.6	0.1	10.47
3/6/2018		206.0		7.85			
3/6/2018				7.81			10.47
3/6/2018			-4.000	7.79			10.60
3/6/2018		206.0	-5.000	7.73			10.65
3/6/2018		206.0	-6.000	7.81			10.65
3/6/2018			-7.000	7.80			10.60
3/6/2018		206.0	-8.000	7.80			10.72
3/6/2018		206.0	-9.000	7.83			10.65
3/6/2018		206.0		7.86			10.49
3/6/2018		206.0	-11.000	7.87			10.55
3/6/2018			-12.000	7.86			10.33
3/6/2018		206.0	-13.000	7.81			10.37
3/6/2018			-14	7.88			10.54
3/6/2018				7.87			10.6
3/6/2018		206	-16	7.87			10.56
=, =, =010		_50	_0	,	0	5	

3/6/2018	3.14	206	-17	7.88	1.8	1.7	10.53
3/6/2018	3.16	206	-18	7.87	1.7	1.4	10.44
3/6/2018	3.18	206	-19	7.87	1.8	2	10.47
3/6/2018	3.2	206	-20	7.87	1.9	2	10.41
3/6/2018	3.24	206	-21	7.88	1.9	1.5	10.41
3/6/2018	3.25	206	-22	7.88	2.1	1.6	10.5
3/6/2018	3.29	207	-23	7.7	2.5	2.2	10.54
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
3/28/2018	5.90	207.0	-1.000	7.49	1.5	0.0	9.69
3/28/2018	5.73	207.0	-2.000	7.82	1.5	0.4	9.69
3/28/2018	5.71	207.0	-3.000	7.87	1.8	0.5	9.69
3/28/2018	5.70	207.0	-4.000	7.93	1.4	0.1	9.69
3/28/2018	5.65	207.0	-5.000	7.91	1.3	1.0	9.69
3/28/2018	5.62	207.0	-6.000	7.91	1.2	1.0	9.69
3/28/2018	5.61	207.0	-7.000	7.90	1.5	1.1	9.69
3/28/2018	5.53	207.0	-8.000	7.90	1.3	1.5	9.69
3/28/2018	5.49	207.0	-9.000	7.68	1.3	2.2	10.57
3/28/2018	5.39	207.0	-10.000	7.70	1.3	2.9	10.49
3/28/2018	5.31	207.0	-11.000	7.71	1.1	1.7	10.44
3/28/2018	5.27	207.0	-12.000	7.70	1.2	2.0	10.44
3/28/2018	5.24	207.0	-13.000	7.70	1.3	1.7	10.43
3/28/2018	5.22	207.0	-14.000	7.88	1.0	2.1	10.47
3/28/2018	5.20	207.0	-15.000	7.89	1.3	1.8	10.50
3/28/2018	5.18	207.0	-16	7.91	1.2	1.9	10.22
3/28/2018	5.17	207	-17	7.9	1.3	1.7	10.34
3/28/2018	5.15	207	-18	7.91	1.2	2	10.4
3/28/2018	5.14	207	-19	7.92	1.2	1.2	10.64
3/28/2018	5.13	207	-20	7.92	1.7	1.7	10.7
3/28/2018	5.12	207	-21	7.88	0.7	0.7	10.44
3/28/2018	5.1	207	-22	7.93	1.6	1.6	10.62
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyll	
M/D/Y	С	uS/cm	m		NTU	ug/L	
4/11/2018			-1.000	7.96			
4/11/2018				8.06			
4/11/2018				8.06			
4/11/2018				8.05			
4/11/2018				8.09	1.4		
4/11/2018				8.08			
4/11/2018				8.05			
4/11/2018	6.91	208.0	-8.000	8.01	1.1	2.0	

4/11/2018	6.65	208.0	-9.000	7.9	7 1.2	1.4		
4/11/2018	6.37	209.0	-10.000	7.9	0 1.1	1.6		
4/11/2018	6.20	209.0	-11.000	7.8	0 1.1	1.7		
4/11/2018	6.10	209.0	-12.000	7.7	6 1.1	1.7		
4/11/2018	5.95	209.0	-13.000	7.7	4 1.1	0.9		
4/11/2018	5.77	209.0	-14.000	7.7	6 1.1	2.3		
4/11/2018	5.70	210.0	-15	7.7	2 1.1	0.5		
4/11/2018	5.64	210	-16	7.	7 1.3	1.1		
4/11/2018	5.55	210	-17	7.6	5 1.1	1.7		
4/11/2018	5.54	210	-18	7.5	8 1	. 1		
4/11/2018	5.52	210	-19	7.6	8 1.3	1.3		
4/11/2018	5.5	210	-20	7.6	7 1.2	1.4		
4/11/2018	5.46	211	-21	7.6	5 1.2	1.3		
4/11/2018	5.44	211	-22	7.6	5 1.5	1.9		
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO	
M/D/Y	С	uS/cm	m	рп	NTU	ug/L	mg/L	
101/10/1	C	us/cm	111		NIO	ug/L	ilig/L	
6/14/2018	19.73	213.0	-1.000	7.8	8 1.2			
6/14/2018	19.70	213.0	-2.000	8.1	4 1.1			
6/14/2018	19.68	213.0	-3.000	8.2	0 1.1			
6/14/2018	18.67	211.0	-4.000	8.2	0 1.0	1		
6/14/2018	18.34	211.0	-5.000	8.2	7 1.1			
6/14/2018	16.74	207.0	-6.000	8.2	1 1.3			
6/14/2018	13.59	200.0	-7.000	8.1	5 0.7	,		8.34
6/14/2018	12.66	199.0	-8.000	8.0	4 0.7	,		8.39
6/14/2018	10.51	204.0	-9.000	8.0	2 0.5	I		7.96
6/14/2018	9.76	207.0	-10.000	8.0	1 0.5	I		7.87
6/14/2018	9.07	212.0	-11.000	7.9	3 0.5	I		7.40
6/14/2018	8.63	215.0	-12.000	7.8	9 1.1			7.09
6/14/2018	8.15	218.0	-13	7.4	4 0.6			6.85
6/14/2018	7.84	220	-14	7.2	5 0.7	•		6.64
6/14/2018	7.66	222	-15	7.1	9 1			6.41
6/14/2018	7.49	222	-16	7.1	1 0.9)		6.11
6/14/2018	7.39	223	-17	6.9	7 1	·		5.9
6/14/2018	7.33	224	-18	6.8	9 1.3			5.66
6/14/2018	7.28	225	-19	7.2	7 1.3			5.64
6/14/2018	7.27	226	-20	7.3	3 1.9)		5.32
6/14/2018	7.22	228	-21	7.3	3 2.6			4.82
	7.2	229	-22	7.3	2 108.5	ı		4.56
DateTime	Temp	SnCand	Denth	рН	Turbidity	Chlorophyl	DO	
M/D/Y	С	SpCond uS/cm	Depth	μπ	NTU	ug/L	mg/L	
141/10/1	C	us/ CIII	m		NIO	ug/ L	ilig/ L	

-1.000

0.0

7.80

7/4/2018

17.94

20.14	215.0	-2.000	8.16	3.1	7.48
20.07	215.0	-3.000	8.24	3.0	7.47
20.05	215.0	-4.000	8.23	3.5	7.42
20.03	216.0	-5.000	8.28	5.2	7.38
19.74	214.0	-6.000	8.22	2.9	7.25
18.47	208.0	-7.000	8.03	2.0	7.00
16.77	205.0	-8.000	8.01	1.7	7.05
14.53	204.0	-9.000	7.94	2.5	7.15
11.91	205.0	-10.000	7.91	1.8	7.30
10.98	207.0	-11.000	7.76	1.9	6.88
9.46	212.0	-12.000	7.69	0.8	6.62
8.98	216.0	-13	7.62	1.0	6.26
8.3	222	-14	7.53	1.5	5.57
7.97	223	-15	7.57	1.3	5.3
7.78	226	-16	7.5	1.5	5
7.67	226	-17	7.43	1.4	4.88
7.59	227	-18	7.39	1.5	4.79
7.56	228	-19	7.03	1.8	4.51
7.53	229	-20	6.8	1.8	4.38
7.51	230	-21	6.71	2.1	4.29
7.46	231	-22	6.82	9.2	1.84
	20.07 20.05 20.03 19.74 18.47 16.77 14.53 11.91 10.98 9.46 8.98 8.3 7.97 7.78 7.67 7.59 7.56 7.53 7.51	20.07 215.0 20.05 215.0 20.03 216.0 19.74 214.0 18.47 208.0 16.77 205.0 14.53 204.0 11.91 205.0 10.98 207.0 9.46 212.0 8.98 216.0 8.3 222 7.97 223 7.78 226 7.59 227 7.56 228 7.53 229 7.51 230	20.07 215.0 -3.000 20.05 215.0 -4.000 20.03 216.0 -5.000 19.74 214.0 -6.000 18.47 208.0 -7.000 16.77 205.0 -8.000 14.53 204.0 -9.000 11.91 205.0 -10.000 10.98 207.0 -11.000 9.46 212.0 -12.000 8.98 216.0 -13 8.3 222 -14 7.97 223 -15 7.78 226 -16 7.67 226 -17 7.59 227 -18 7.56 228 -19 7.53 229 -20 7.51 230 -21	20.07 215.0 -3.000 8.24 20.05 215.0 -4.000 8.23 20.03 216.0 -5.000 8.28 19.74 214.0 -6.000 8.22 18.47 208.0 -7.000 8.03 16.77 205.0 -8.000 8.01 14.53 204.0 -9.000 7.94 11.91 205.0 -10.000 7.91 10.98 207.0 -11.000 7.76 9.46 212.0 -12.000 7.69 8.98 216.0 -13 7.62 8.3 222 -14 7.53 7.97 223 -15 7.57 7.78 226 -16 7.5 7.67 226 -17 7.43 7.59 227 -18 7.39 7.56 228 -19 7.03 7.53 229 -20 6.8 7.51 230 -21 6.71	20.07 215.0 -3.000 8.24 3.0 20.05 215.0 -4.000 8.23 3.5 20.03 216.0 -5.000 8.28 5.2 19.74 214.0 -6.000 8.22 2.9 18.47 208.0 -7.000 8.03 2.0 16.77 205.0 -8.000 8.01 1.7 14.53 204.0 -9.000 7.94 2.5 11.91 205.0 -10.000 7.91 1.8 10.98 207.0 -11.000 7.76 1.9 9.46 212.0 -12.000 7.69 0.8 8.98 216.0 -13 7.62 1.0 8.3 222 -14 7.53 1.5 7.97 223 -15 7.57 1.3 7.78 226 -16 7.5 1.5 7.67 226 -17 7.43 1.4 7.59 227 -18 7.39 1.5 7.56 228 -19 7.03 1.8

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl DO	
M/D/Y	С	uS/cm	m		NTU	ug/L mg/	/L
7/13/2018	3 23.06	219.0	-1	7.98	2.5		7.31
	22.90	219.0	-2.000	8.37	2.6		7.36
	22.40	218.0	-3.000	8.42	2.7		7.54
	21.09	216.0	-4.000	8.45	2.2		7.71
	20.29	214.0	-5.000	8.43	2.2		7.31
	19.12	211.0	-6.000	7.96	1.0		6.62
	17.67	208.0	-7.000	8.00	1.6		6.30
	15.86	207.0	-8.000	7.91	2.0		6.27
	12.55	207.0	-9.000	7.90	2.1		6.54
	10.50	211.0	-10.000	7.90	1.8		6.27
	9.77	215.0	-11.000	7.86	2.1		5.90
	9.31	216.0	-12.000	7.75	1.8		5.57
	8.79	220.0	-13.000	7.13	1.9		5.68
	8.42	223.0	-14	6.87	1.4		6.06
	8.14	225	-15	6.78	1.5		6.14
	7.9	227	-16	7.04	1.6		4.84
	7.72	228	-17	7.01	1.5		4.46
	7.66	230	-18	7.01	2		4.19
	7.65	230	-19	6.96	2		3.97
	7.59	230	-20	6.88	2.6		3.69
	7.6	230	-21	7	2.3		3.62

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl DO)
M/D/Y	С	uS/cm	m		NTU	ug/L mg	;/L
7/31/2018	21.75	220.0	-1.000	8.35	2.0		7.38
7/31/2018	21.58	220.0	-3.000	8.40	1.8		7.38
7/31/2018	21.53	220.0	-4.000	8.42	2.0		7.36
7/31/2018	21.50	220.0	-5.000	8.43	2.3		7.34
7/31/2018	20.92	220.0	-6.000	8.44	2.2		7.25
7/31/2018	18.34	214.0	-7.000	8.24	1.0		6.02
7/31/2018	15.95	213.0	-8.000	7.81	0.7		6.09
7/31/2018	14.21	213.0	-9.000	7.54	1.1		6.34
7/31/2018	11.52	215.0	-10.000	7.59	1.5		6.45
7/31/2018	10.58	217.0	-11.000	7.45	1.0		6.35
7/31/2018	9.95	218.0	-12.000	7.58	1.0		4.77
7/31/2018	9.17	221.0	-13.000	7.44	1.0		4.35
7/31/2018	8.79	226.0	-14	7.4	1.4		4.00
7/31/2018	8.63	226	-15	7.35	1.4		3.88
7/31/2018	8.41	228	-16	6.81	1.4		3.79
7/31/2018	8.21	229	-17	6.62	1.5		3.68
7/31/2018	8.07	231	-18	6.58	1.8		3.48
7/31/2018	8.01	232	-19	6.48	2		3.37
7/31/2018	8.01	233	-20	6.35	19.8		1.13

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
8/24/2018	20.50	222.0	-1.000	8.19	1.1	1.1	7.71
8/24/2018	20.70	222.0	-2.000	8.37	1.3	1.9	7.74
8/24/2018	19.98	222.0	-3.000	8.49	1.5	1.6	7.71
8/24/2018	19.92	222.0	-4.000	8.39	1.2	2.5	7.62
8/24/2018	19.87	222.0	-5.000	8.34	1.2	3.0	7.52
8/24/2018	19.83	222.0	-6.000	8.38	1.5	2.7	7.33
8/24/2018	19.62	220.0	-7.000	8.41	2.4	2.2	7.08
8/24/2018	19.09	218.0	-8.000	8.10	0.9	1.3	4.16
8/24/2018	16.52	222.0	-9.000	7.98	0.8	0.9	3.03
8/24/2018	13.65	220.0	-10.000	7.84	1.2	0.3	2.70
8/24/2018	12.53	222.0	-11.000	7.75	1.3		2.51
8/24/2018	10.60	222.0	-12.000	7.60	1.3		2.29
8/24/2018	9.89	225.0	-13	7.42	1.3		2.16
8/24/2018	9.43	228	-14	7.33	1.5		2.06
8/24/2018	9.06	231	-15	7.31	1.8		1.98
8/24/2018	8.86	232	-16	7.31	1.5		1.95
8/24/2018	8.79	232	-17	7.25	1.5		1.87
8/24/2018	8.69	234	-18	7.21	2.1		1.69
8/24/2018	8.65	238	-19	6.91	57.6		1.35

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
8/30/2018	19.86	222.0	-1.000	8.25	1.2	1.0	7.72
	19.86	222.0	-2.000	8.29	1.2	1.4	7.75
	19.61	222.0	-3.000	8.37	1.3	2.0	7.66
	19.57	222.0	-4.000	8.23	1.5	2.4	7.59
	19.43	221.0	-5.000	8.17	1.3	2.5	7.44
	19.24	221.0	-6.000	8.15	1.3	1.8	7.25
	19.17	220.0	-7.000	8.14	1.6	2.1	7.09
	18.95	218.0	-8.000	8.11	1.6	1.9	6.78
	17.31	221.0	-9.000	8.00	0.6	1.7	3.85
	15.13	224.0	-10.000	7.89	0.8	0.4	2.63
	12.81	223.0	-11.000	7.85	0.6	0.4	2.13
	10.85	225.0	-12.000	7.83	0.6	0.6	2.01
	10.33	225.0	-13	7.77	0.6	0.3	2.08
	9.86	228	-14	7.65	1.3	0.4	1.9
	9.42	231	-15	7.39	1.4		1.5
	9.14	234	-16	7.29	1.6	0.3	1.35
	8.98	235	-17	7.2	2	0.6	1.23
	8.88	234	-18	7.07	2	0.3	1.08
	8.84	235	-19	6.93	98.9		0.96
DateTime	Temp	SpCond	Depth	pН	Turbidity	Chlorophyl	DO
DateTime M/D/Y	Temp C		Depth m	рН	Turbidity NTU		DO mg/L
	С	uS/cm	•	рН 8.23	NTU	ug/L	
M/D/Y	С	uS/cm 215.0	m	•	NTU 0.9	ug/L	mg/L
M/D/Y	C 17.56	uS/cm 215.0 216.0	m -1.000	8.23	NTU 0.9	ug/L	mg/L 7.73
M/D/Y	C 17.56 17.50	uS/cm 215.0 216.0	m -1.000 -2.000	8.23 8.14	NTU 0.9 1.0 1.0	ug/L	mg/L 7.73 7.70
M/D/Y	C 17.56 17.50 17.45	uS/cm 215.0 216.0 216.0 215.0	m -1.000 -2.000 -3.000 -4.000	8.23 8.14 7.92	NTU 0.9 1.0 1.0 1.1	ug/L	7.73 7.70 7.68 7.73 7.65
M/D/Y	C 17.56 17.50 17.45 17.43	uS/cm 215.0 216.0 216.0 215.0	m -1.000 -2.000 -3.000 -4.000	8.23 8.14 7.92 7.78	NTU 0.9 1.0 1.0 1.1 1.2	ug/L	mg/L 7.73 7.70 7.68 7.73
M/D/Y	C 17.56 17.50 17.45 17.43 17.42 17.41	uS/cm 215.0 216.0 216.0 215.0 216.0 216.0 216.0	m -1.000 -2.000 -3.000 -4.000 -5.000	8.23 8.14 7.92 7.78 7.62	NTU 0.9 1.0 1.1 1.2 1.3 1.2	ug/L	mg/L 7.73 7.70 7.68 7.73 7.65
M/D/Y	T7.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26	uS/cm 215.0 216.0 216.0 215.0 216.0 216.0 215.0	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000	8.23 8.14 7.92 7.78 7.62 7.55 7.49	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1	ug/L	mg/L 7.73 7.70 7.68 7.65 7.68 7.66 7.44
M/D/Y	T7.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05	uS/cm 215.0 216.0 215.0 216.0 216.0 216.0 215.0 212.0	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45	NTU 0.9 1.0 1.1 1.2 1.3 1.2 1.1 0.9	ug/L	mg/L 7.73 7.70 7.68 7.73 7.65 7.68 7.66 7.44 6.44
M/D/Y	T7.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89	uS/cm 215.0 216.0 216.0 215.0 216.0 216.0 215.0 212.0 210.0	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.54	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8	ug/L	mg/L 7.73 7.70 7.68 7.65 7.68 7.66 7.44 6.44 6.10
M/D/Y	C 17.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89	uS/cm 215.0 216.0 216.0 215.0 216.0 216.0 215.0 216.0 215.0 217.0	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000 -10.000 -11.000	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.54 7.34	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3	ug/L	mg/L 7.73 7.70 7.68 7.73 7.65 7.68 7.66 7.44 6.44 6.10 2.74
M/D/Y	T7.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89	uS/cm 215.0 216.0 216.0 215.0 216.0 216.0 215.0 216.0 215.0 217.0	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000 -10.000 -11.000	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.54	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3	ug/L	mg/L 7.73 7.70 7.68 7.65 7.68 7.66 7.44 6.44 6.10
M/D/Y	C 17.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 215.0 228.0	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000 -10.000 -11.000 -12.000	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.34 7.00 7.01 6.7	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0	ug/L	mg/L 7.73 7.70 7.68 7.65 7.68 7.66 7.44 6.44 6.10 2.74 2.70 0.38
M/D/Y	Tr.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89 15.54 15.76 13.70 11.96	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 228.0 230	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000 -10.000 -11.000 -12.000 -13 -14	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.54 7.34 7.00 7.01 6.7	NTU 0.9 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0 1.3	ug/L	mg/L 7.73 7.70 7.68 7.73 7.65 7.68 7.66 7.44 6.44 6.10 2.74 2.70 0.38 0.13
M/D/Y	Tr.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89 15.54 15.76 13.70 11.96 11.21	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 215.0 228.0 230	m -1.000 -2.000 -3.000 -4.000 -5.000 -7.000 -8.000 -10.000 -12.000 -13 -14 -15	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.34 7.00 7.01 6.7 6.58 6.83	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0 1.3 1.1	ug/L	mg/L 7.73 7.70 7.68 7.65 7.68 7.66 7.44 6.44 6.10 2.74 2.70 0.38 0.13 0.12
M/D/Y	Tr.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89 15.54 15.76 13.70 11.96	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 215.0 228.0 230	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -8.000 -9.000 -10.000 -11.000 -12.000 -13 -14	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.54 7.34 7.00 7.01 6.7	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0 1.3 1.1	ug/L	mg/L 7.73 7.70 7.68 7.73 7.65 7.68 7.66 7.44 6.44 6.10 2.74 2.70 0.38 0.13
M/D/Y	Tr.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89 15.54 15.76 13.70 11.96 11.21	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 215.0 228.0 230	m -1.000 -2.000 -3.000 -4.000 -5.000 -7.000 -8.000 -10.000 -12.000 -13 -14 -15	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.34 7.00 7.01 6.7 6.58 6.83	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0 1.3 1.1	ug/L	mg/L 7.73 7.70 7.68 7.65 7.68 7.66 7.44 6.44 6.10 2.74 2.70 0.38 0.13 0.12
M/D/Y 9/20/2018	T7.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89 15.54 15.76 13.70 11.96 11.21 10.21	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 215.0 228.0 230 230 230	m -1.000 -2.000 -3.000 -4.000 -5.000 -6.000 -7.000 -10.000 -11.000 -12.000 -13 -14 -15 -16	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.34 7.00 7.01 6.7 6.58 6.83 6.75	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0 1.3 1.1 1.4	ug/L	mg/L 7.73 7.70 7.68 7.73 7.65 7.68 7.66 7.44 6.44 6.10 2.74 2.70 0.38 0.13 0.12 0.01
M/D/Y	Tr.56 17.50 17.45 17.43 17.42 17.41 17.40 17.26 17.05 16.89 15.54 15.76 13.70 11.96 11.21	uS/cm 215.0 216.0 216.0 216.0 216.0 216.0 216.0 215.0 215.0 212.0 210.0 217.0 215.0 228.0 230 230 230	m -1.000 -2.000 -3.000 -4.000 -5.000 -7.000 -8.000 -10.000 -12.000 -13 -14 -15	8.23 8.14 7.92 7.78 7.62 7.55 7.49 7.45 7.34 7.00 7.01 6.7 6.58 6.83	NTU 0.9 1.0 1.0 1.1 1.2 1.3 1.2 1.1 0.9 0.8 0.3 0.4 1.0 1.3 1.1	ug/L Chlorophyl	mg/L 7.73 7.70 7.68 7.73 7.65 7.68 7.66 7.44 6.10 2.74 2.70 0.38 0.13 0.12 0.01

16.03	216.0	-2.000	7.24	0.4	7.49
16.01	216.0	-3.000	7.30	0.3	7.54
16.00	217.0	-4.000	7.31	0.4	7.54
15.99	216.0	-5.000	7.32	0.4	7.50
15.98	217.0	-6.000	7.32	0.4	7.53
15.98	217.0	-7.000	7.48	0.4	7.50
15.96	217.0	-8.000	7.84	0.8	7.49
15.91	217.0	-9.000	7.88	0.6	7.44
15.66	217.0	-10.000	7.83	0.6	6.38
15.11	218.0	-11.000	7.70	0.7	5.52
11.84	232.0	-12	7.54	0.2	1.74
10.87	233	-13	7.34	0.3	1.03
10.23	235	-14	7.2	0.1	0.26
9.63	238	-15	7.05	0	0.12
9.27	242	-16	6.96	0	0.09
9.16	242	-17	6.86	0	0.05
9.1	245	-18	6.72	0	0.02
9.03	246	-18.5	6.53	0	0.02

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
10/26/2018	12.87	160.1	-1.000	8.24	1.16	-0.53	8.17
10/26/2018	12.81	159.9	-2.000	8.26	1.22	-0.4	8.18
10/26/2018	12.78	159.9	-3.000	8.27	1.26	-0.24	8.13
10/26/2018	12.76	159.8	-4.000	8.27	1.26	-0.17	8.13
10/26/2018	12.75	159.7	-5.000	8.27	1.28	-0.24	8.13
10/26/2018	12.74	159.7	-6.000	8.28	1.29	-0.1	8.14
10/26/2018	12.73	159.7	-7.000	8.27	1.38	-0.13	8.14
10/26/2018	12.71	159.6	-8.000	8.28	1.21	-0.19	8.16
10/26/2018	12.70	159.6	-9.000	8.28	1.2	-0.34	8.16
10/26/2018	12.68	159.6	-10.000	8.26	1.34	-0.25	8.1
10/26/2018	12.42	160.4	-11.000	7.89	2.28	-0.58	6.31
10/26/2018	12.32	160.8	-12	7.81	2.39	-0.58	5.87
10/26/2018	12.233	162	-13	7.72	2.56	-0.63	5.22
10/26/2018	11.529	169.2	-14	7.4	3.51	-0.66	1.96
10/26/2018	11.012	173.3	-15	7.26	3.16	-0.73	0.05
10/26/2018	10.915	175	-16	7.29	1.97	-0.73	-0.05
10/26/2018	10.869	175.6	-17	7.28	1.79	-0.7	-0.07
10/26/2018	10.753	214	-18	7.31	89.12	0.67	-0.06

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
11/14/2018	8.67	210.5	-1.273	8.22	3.44	-0.31	8.91
11/14/2018	8.62	210.7	-2.011	8.21	. 3.36	-0.25	8.9
11/14/2018	8.59	210.7	-3.043	8.23	3.6	-0.15	8.88

11/14/2018	8.58	210.7	-4.024	8.22	3.68	-0.26	8.89
11/14/2018	8.57	210.8	-4.995	8.22	3.53	-0.38	8.87
11/14/2018	8.56	210.8	-6.069	8.24	3.45	-0.26	8.86
11/14/2018	8.56	210.8	-7.009	8.22	3.5	-0.33	8.86
11/14/2018	8.56	210.9	-8.006	8.23	3.5	-0.35	8.86
11/14/2018	8.56	210.8	-9.060	8.22	3.45	-0.3	8.86
11/14/2018	8.56	210.8	-10.046	8.22	3.47	-0.4	8.86
11/14/2018	8.56	210.8	-11.005	8.22	3.5	-0.2	8.86
11/14/2018	8.56	210.9	-12.011	8.23	3.4	-0.32	8.86
11/14/2018	8.557	210.9	-13.029	8.23	3.45	-0.09	8.86
11/14/2018	8.549	210.9	-14.076	8.23	3.64	-0.25	8.86
11/14/2018	8.541	210.9	-15.04	8.23	3.5	-0.06	8.86
11/14/2018	8.535	210.9	-16.037	8.23	3.78	-0.28	8.86
11/14/2018	8.523	211	-17.018	8.24	3.95	-0.31	8.86
11/14/2018	8.516	211.1	-17.997	8.23	3.79	-0.34	8.87
11/14/2018	8.469	211.3	-19.019	8.23	4.2	-0.3	8.9
11/14/2018	8.537	309.4	-19.776	7.79	3.03	0.6	

Juniata Reservoir Profiles 2019

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	c .	uS/cm	m '	•	NTU ,		mg/L
4/3/2019	7.77	•	-1.000	8.28	1.63	_	12
4/3/2019		212.3		8.28	1.62	-0.5	12
4/3/2019				8.3	1.68		12.1
4/3/2019	6.48	212.3	-4.000	8.29	1.8	-0.05	12.2
4/3/2019	6.49	212.4	-5.000	8.29	1.74	-0.07	12.2
4/3/2019	6.38	212.3	-6.000	8.28	1.85	0.07	12.2
4/3/2019	6.38	212.3	-7.000	8.28	1.86	0.03	12.2
4/3/2019	6.34	212.3	-8.000	8.29	1.89	-0.08	12.1
4/3/2019	6.25	212.3	-9.000	8.29	1.95	-0.24	12.1
4/3/2019	6.14	212.3	-10.000	8.28	1.97	-0.24	12.1
4/3/2019	6.07	212.5	-11.000	8.28	2.36	-0.27	12
4/3/2019	5.95	212.5	-12	8.27	2.5	-0.29	12
4/3/2019	5.88	212.5	-13	8.26	2.47	-0.16	12
4/3/2019	5.66	212.5	-14	8.24	3.09	-0.21	11.9
4/3/2019	5.61	212.8	-15	8.23	2.85	-0.33	11.9
4/3/2019	5.43	213.1	-16	8.21	3.52	-0.25	11.9
4/3/2019	5.31	213.1	-17	8.2	3.62	-0.34	11.8
4/3/2019	5.2	213.4	-18	8.19	4.05	-0.43	11.7
4/3/2019	5.1	213.4	-19	8.18	4.17	-0.48	11.7
4/3/2019	5.05	213.4	-20	8.18	4.13	-0.55	11.6
4/3/2019	4.97	213.4	-21	8.17	4.27	-0.53	11.7
4/3/2019	4.96	213.6	-22	8.16	4.46	-0.68	11.6
4/3/2019	4.91	213.6	-23	8.11	5.24	-0.27	11.6
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m	рп	NTU		mg/L
4/17/2019		<u>-</u>		8.36	2.14		11.22
4/17/2019				8.35			
4/17/2019				8.35	1.89		11.23
4/17/2019				8.35	1.76		11.24
4/17/2019			-6.000	8.335	1.42		11.26
4/17/2019				8.34			11.27
4/17/2019			-8.000	8.32	1.33		11.27
4/17/2019				8.27	2.42		11.34
4/17/2019				8.17	1.06		11.33
4/17/2019				8.13	1.21		11.14
4/17/2019				8.09	1.18		11.04
4/17/2019			-13	8.08	1.11		10.93
4/17/2019				8.06	1.33		10.83
4/17/2019				8.04	1.51		10.7
4/17/2019				8.03	1.53		10.63
4/17/2019				8.02	1.67		10.55
-							

4/17/2019	5.35	217	-18	8	1.72	0	10.38
4/17/2019		217.7	-19	7.98	1.94	0	10.16
4/17/2019		290.4	-20	7.95	76.99	9.54	9.81
4/17/2019				7.78	175.27	2.11	9.54
., ,	0.0	000.1		7	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	C	uS/cm	m	Pii	NTU		mg/L
5/29/2019			0.000	8.52	1.04	0	10.1
5/29/2019				8.53	1.04	0	10.1
5/29/2019				8.54	1.08	0	10.1
5/29/2019				8.54	1.08	0.3	10.1
5/29/2019				8.54	1.08	0.3	10.1
5/29/2019					1.14		10.1
• •				8.56	1.01	0.26	10.1
5/29/2019			-6.000	8.52		0	
5/29/2019			-7.000	8.49	1.54	0	10.1
5/29/2019				8.43	1.98	0	10.1
5/29/2019				8.17	1.05	0	9.8
5/29/2019				8.09	0.68	0	9.7
5/29/2019			-11	7.99	0.53	0	9.3
5/29/2019			-12	7.92	0.67	0	9
5/29/2019				7.88	0.59	0	8.8
5/29/2019				7.84	0.71	0	8.4
5/29/2019				7.8	0.8	0	8.1
5/29/2019			-16	7.75	1.01	0	7.7
5/29/2019			-17	7.72	0.93	0	7.4
5/29/2019	6.4	225.3	-18	7.71	0.96	0	7.2
5/29/2019	6.33	225.9	-19	7.69	0.99	0	7.1
5/29/2019		227.2	-20	7.66	1.29	0	6.7
5/29/2019	6.26	227.8	-21	7.64	1.25	0	6.3
DateTime	Temp	SpCond	Depth	pН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
6/27/2019	18.76	196.1	0.000	8.56	3.69	0	9.2
6/27/2019	18.70	196.1	-1.000	8.55	4.72	0.01	9.2
6/27/2019	18.40	195.1	-2.000	8.55	4.95	0.17	9.3
6/27/2019	15.86	175.0	-3.000	8.33	3.43	0.4	9
6/27/2019	14.69	166.6	-4.000	8.17	3.09	0.11	8.8
6/27/2019	14.06	169.6	-5.000	8.16	2.79	0	8.8
6/27/2019	13.78	168.9	-6.000	8.2	2.65	0	8.9
6/27/2019	13.61	169.5	-7.000	8.21	2.94	0	9
6/27/2019	13.35	168.4	-8.000	8.22	3.43	0.04	9
6/27/2019	13.03	183.0	-9.000	8.24	2.66	0	9
6/27/2019		204.5	-10	8.23	1.79	0	9
 . /27/2010	11 21	2477	4.4	0 4 4	1 27	^	0.0

8.14

7.9

1.27

1.28

-11

-12

0

0

8.8

8.1

6/27/2019

6/27/2019

11.21

9.8

217.7

222.8

6/27/2019	9.1	225	-13	7.78	1.31	0	7.7
6/27/2019		228.2			1.51		7.7 6.9
6/27/2019		228.7		7.63	1.71		6.5
6/27/2019		229.7					6.1
6/27/2019		229.7	-10		2.21		6.1
6/27/2019		229.8	-17		2.18	0	6
6/27/2019		229.4	-18 -19		1.93		6
6/27/2019		230.9			2.72		5.6
6/27/2019		230.3					5.4
6/27/2019		231.4			3.15	0	5.4
6/27/2019		231.4		7.52	13.83	0	5.2
0/2//2013	7.03	231.3	23	7.52	13.03	O	3.2
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl I	
M/D/Y	С	uS/cm	m		NTU	-	mg/L
7/16/2019			0.000	8.6	3.71	0	8.5
7/16/2019		196.7		8.57			8.6
7/16/2019		191.1			3.94		8.7
7/16/2019					4.18		7.9
7/16/2019		172.2			3.88		7.4
7/16/2019		170.4		7.82	3.73	0.47	7.2
7/16/2019		169.8	-6.000	7.77		0.51	7.3
7/16/2019		171.1	-7.000	7.79	2.97		7.5
7/16/2019		177.3	-8.000	7.81	2.81		7.5
7/16/2019		188.0	-9.000		4.18		7.4
7/16/2019		197.3			2.33		7.6
7/16/2019		213.2			1.73	0	7.3
7/16/2019					1.77		7.4
7/16/2019		220.2	-13		1.38	0	7.1
7/16/2019		224.4	-14		1.27	0	6.4
7/16/2019		227.8		7.59	1.52	0	6
7/16/2019		231.4			1.55		5.2
7/16/2019		231.7			1.44		4.8
7/16/2019		233.9			1.4		4.2
7/16/2019 7/16/2019		235.1 235.4					3.8 3.6
7/16/2019		235.4			1.58 1.76		3.5
7/16/2019					1.76		
7/16/2019					1.69	0	3.3 2.5
//10/2019	7.20	200.5	-23	7.30		U	2.5
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl I	
M/D/Y	C	uS/cm	m	2.22	NTU		mg/L
8/23/2019		190.6			1.94	0.64	8.3
8/23/2019					1.99		8.3
8/23/2019		190.6					8.3
8/23/2019	22.03	190.4	-3.000	8.84	1.78	0.91	8.3

8/23/2019	22.01	190.2	-4.000	8.84	1.93	0.97	8.3
8/23/2019	21.46	181.6	-5.000	8.72	1.53	2.55	8.3
8/23/2019	20.40	176.8	-6.000	8.39	1.32	2.32	7.2
8/23/2019	17.93	176.3	-7.000	7.75	1.41	1.48	4.6
8/23/2019	16.49	175.9	-8.000	7.6	1.72	1.72	3.9
8/23/2019	15.11	174.8	-9.000	7.53	1.5	0.55	3.8
8/23/2019	14.13	177.6	-10	7.51	1.38	0.55	4.1
8/23/2019	13.4	183.9	-11	7.51	1.5	0.49	4.5
8/23/2019	11.89	200.8	-12	7.54	1.83	0.35	4.7
8/23/2019	10.06	225.4	-13	7.45	1.77	0.23	4
8/23/2019	9.18	230.1	-14	7.41	1.43	0.14	3.6
8/23/2019	8.75	232.9	-15	7.37	1.68	0.04	3.1
8/23/2019	8.42	235.5	-16	7.32	1.92	0.06	2.6
8/23/2019	8.12	237.7	-17	7.29	1.93	0	2.1
8/23/2019	8.01	238.7	-18	7.26	2.1	0.01	1.7
8/23/2019	7.91	241.5	-19	7.24	4.53	0	1.2
8/23/2019	7.84	241.8	-20	7.22	3.31	0.02	0.8
8/23/2019	7.82	242.1	-21	7.22	3.5	0	0.7

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
8/28/2019	22.21	190.5	0.000	8.87	2.41	0.68	9.2
8/28/2019	21.65	189.9	-1.000	8.78	1.59	0.59	8.4
8/28/2019	21.60	190.3	-2.000	8.77	2.04	0.72	8.3
8/28/2019	21.54	190.1	-3.000	8.76	1.88	0.94	8.2
8/28/2019	21.37	187.3	-4.000	8.69	1.55	1.45	8.1
8/28/2019	20.85	180.8	-5.000	8.53	1.63	2.04	7.6
8/28/2019	20.73	180.5	-6.000	8.51	1.55	2.01	7.5
8/28/2019	18.65	176.7	-7.000	7.73	1.45	1.39	4.6
8/28/2019	16.46	176.6	-8.000	7.51	1.54	2.52	3.4
8/28/2019	14.96	176.1	-9.000	7.43	1.35	0.82	3.4
8/28/2019	13.87	179.5	-10	7.44	1.34	0.43	3.8
8/28/2019	13.05	184.9	-11	7.49	1.45	0.31	4.2
8/28/2019	12.09	195.6	-12	7.51	1.54	0.23	4.3
8/28/2019	10.18	224	-13	7.44	1.87	0.1	3.5
8/28/2019	9.37	231.6	-14	7.4	1.67	0.16	3.1
8/28/2019	8.86	233.2	-15	7.45	1.78	0.18	2.9
8/28/2019	8.54	235.2	-16	7.37	1.71	0.06	2.4
8/28/2019	8.46	235.6	-17	7.36	1.56	0.04	2.3
8/28/2019	8.33	236.7	-18	7.36	1.57	0.04	2.1
8/28/2019	8.18	237.8	-19	7.35	1.8	0	1.7
8/28/2019	8.1	238.8	-20	7.34	1.71	0	1.6
8/28/2019	8.02	239.6	-21	7.33	2.15	0	1.3
8/28/2019	7.92	240.7	-22	7.31	2.14	0.05	0.8
8/28/2019	7.89	242.3	-23	7.31	2.63	0	0.6
8/28/2019	7.86	243.9	-24	7.29	208.5	0	0.3

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
9/4/2019	22.03	191.0	0.000	8.8	1.7	0.66	8.4
9/4/2019	21.99	191.0	-1.000	8.8	1.75	0.61	8.41
9/4/2019	21.91	190.6	-2.000	8.8	1.5	0.59	8.42
9/4/2019	21.68	189.3	-3.000	8.79	1.34	0.8	8.43
9/4/2019	21.53	189.6	-4.000	8.77	1.44	0.93	8.31
9/4/2019	21.41	188.8	-5.000	8.74	1.32	1.06	8.15
9/4/2019	20.98	187.0	-6.000	8.61	1.29	1.53	7.6
9/4/2019	19.41	179.8	-7.000	7.94	1.21	1.19	5.21
9/4/2019	17.74	178.1	-8.000	7.59	1.34	1.2	3.43
9/4/2019	15.62	175.8	-9.000	7.42	1.23	1.23	2.61
9/4/2019	13.92	179.6	-10	7.41	1.1	0.43	3.05
9/4/2019	13.052	184.1	-11	7.44	1.22	0.56	3.4
9/4/2019	11.914	196.7	-12	7.48	1.47	0.34	3.87
9/4/2019	11.693	198.6	-13	7.48	1.34	0.35	3.66
9/4/2019	10.032	227.5	-14	7.42	1.36	0.19	3.16
9/4/2019	8.948	234.3	-15	7.35	1.57	0.08	2.27
9/4/2019	8.592	236.4	-16	7.33	1.63	0.06	1.81
9/4/2019	8.351	237.6	-17	7.31	1.7	0.02	1.49
9/4/2019	8.215	239.4	-18	7.3	1.71	0.01	1.19
9/4/2019	8.113	240.9	-19	7.31	1.82	0.1	0.82
9/4/2019	8.009	242.1	-20	7.31	1.98	-0.01	0.53
9/4/2019	7.933	243.7	-21	7.3	2.78	-0.04	0.16
9/4/2019	7.882	245.4	-22	7.31	2.6	-0.08	-0.04
9/4/2019	7.882	246.7	-23	7.31	38	0.51	-0.05
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
9/12/2019	19.82		0.000	8.72	2.38	0.79	7.76
9/12/2019					2.33		7.75
9/12/2019							7.73
9/12/2019							7.72
9/12/2019					2.29		7.71
9/12/2019							7.7
9/12/2019							7.59
9/12/2019							2.2
9/12/2019					1.36		1.99
9/12/2019							2.34
9/12/2019					1.42		2.35
9/12/2019							2.24
9/12/2019							1.97
9/12/2019					1.7		1.55
9/12/2019	8.547	238.1	-14	7.34	1.76	0.02	1.3

0/12/2010	0 221	240.1	15	7 22	1 02	0.07	1
9/12/2019				7.33	1.83	0.07	1
9/12/2019				7.32	1.63	0.05	0.64
9/12/2019				7.31	1.95	0.04	0.33
9/12/2019				7.31	2.14	-0.01	0.16
9/12/2019				7.32	382.92	5.38	0.07
9/12/2019	8.025	309.6	-20	7.33	102.51	0.94	0.06
	_						
DateTime	Temp	SpCond	Depth	рН	-	Chlorophyl	
M/D/Y	С	uS/cm	m				mg/L
9/18/2019				8.58	1.31	0.35	8.07
9/18/2019			-1.000	8.58	1.36	0.52	8.06
9/18/2019	19.10	188.9	-2.000	8.59	1.51	0.7	8.06
9/18/2019	19.09	188.9	-3.000	8.59	1.51	0.75	8.05
9/18/2019	19.07	189.0	-4.000	8.6	1.66	0.72	8.05
9/18/2019	19.07	189.0	-5.000	8.6	1.58	0.7	8.05
9/18/2019	19.07	189.1	-6.000	8.61	1.5	0.6	8.04
9/18/2019	19.02	188.5	-7.000	8.6	1.66	0.49	8
9/18/2019	18.09	184.0	-8.000	7.93	1.34	0.42	4.97
9/18/2019	15.11	178.7	-9.000	7.58	1.22	0.4	2.03
9/18/2019				7.41	1.45	0.23	2.19
9/18/2019				7.32	1.27	0.2	2.31
9/18/2019				7.19	1.58	0.13	1.89
9/18/2019				7.15	1.3	0.08	1.44
9/18/2019			-14	7.13	1.81	0.09	1.04
9/18/2019			-15	7.13	1.46	0.03	0.82
9/18/2019			-16	7.12	1.40	-0.1	0.52
• •				7.12			
9/18/2019					2.17	0.01	0.33
9/18/2019				7.16	2.12	-0.04	0.14
9/18/2019	8.052	247	-19	7.21	2	-0.04	-0.09
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	C	uS/cm	m	P	•		mg/L
10/1/2019	-	-		8.38	1.98	0.58	8.29
10/1/2019				8.37	1.93	0.58	8.28
10/1/2019				8.38	1.95	0.58	8.28
10/1/2019				8.38	2.03	0.58	8.27
• •							
10/1/2019				8.4	1.9	0.58	8.27
10/1/2019				8.4	2.03	0.58	8.25
10/1/2019				8.4	2.05	0.58	8.23
10/1/2019				8.4	2.06	0.58	8.2
10/1/2019				8.39	2.25	0.58	8.15
10/1/2019				8.03	2.98	0.58	6.26
10/1/2019				7.53	2.02	0.58	1.64
10/1/2019		235.4		7.44	1.78	0.58	1.19
10/1/2019	8.917	238.9	-12	7.4	2.08	0.58	0.82

10/1/2019	8.631	241.2	-13	7.36	1.94	0.58	0.51
10/1/2019		242.3	-14	7.35	1.79	0.58	0.29
10/1/2019	8.36	243.7	-15	7.34	1.75	0.58	0.1
10/1/2019		245.9	-16	7.33	1.66	0.58	-0.03
DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
10/16/2019	13.21	190.5	0.000	8.27	1.74	0.17	8.85
10/16/2019	13.17	190.4	-1.000	8.27	1.73	0.22	8.86
10/16/2019	13.14	190.4	-2.000	8.28	1.76	0.47	8.87
10/16/2019	13.13	190.5	-3.000	8.29	1.76	0.42	8.88
10/16/2019	13.12	190.5	-4.000	8.3	1.76	0.34	8.88
10/16/2019	13.11	190.5	-5.000	8.31	1.69	0.35	8.88
10/16/2019	13.10	190.5	-6.000	8.32	1.76	0.37	8.89
10/16/2019	13.10	190.5	-7.000	8.32	1.71	0.37	8.89
10/16/2019	13.09	190.5	-8.000	8.31	1.89	0.64	8.81
10/16/2019	13.08	190.5	-9.000	8.31	1.82	0.46	8.77
10/16/2019	13.08	190.5	-10	8.31	1.86	0.48	8.76
10/16/2019	13.045	190.6	-11	8.31	1.95	0.47	8.74
10/16/2019	12.648	195.2	-12	8.11	2.2	0.25	7.75
10/16/2019	11.825	215.5	-13	7.8	2.14	0.05	5.2
10/16/2019	9.63	236.8	-14	7.48	1.82	0.19	1.13
10/16/2019	8.937	240.5	-15	7.31	1.55	0.07	0.35
10/16/2019	8.62	244.3	-16	7.27	1.8	0.01	0.1
10/16/2019	8.437	246.6	-17	7.27	2.21	0.06	0.03
10/16/2019	8.326	249.2	-18	7.28	2.54	0.07	-0.01
10/16/2019		252.9	-19	7.28	5.35	0.02	-0.02
10/16/2019	8.196	256.7	-20	7.28	37.89	0.13	-0.03
DateTime	Temp	SpCond	Depth	рН	Turhidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m	PII	NTU	ug/L	mg/L
10/24/2019		-		8.09			9.02
10/24/2019				8.09			8.98
10/24/2013	11.40	193.5	1.000	0.03	2	0.40	0.50

DateTime	Temp	SpCond	Depth	рН	Turbidity	Chlorophyl	DO
M/D/Y	С	uS/cm	m		NTU	ug/L	mg/L
10/24/2019	11.40	193.4	0.000	8.09	1.91	0.25	9.02
10/24/2019	11.40	193.5	-1.000	8.09	2	0.48	8.98
10/24/2019	11.39	193.6	-2.000	8.09	1.97	0.34	8.94
10/24/2019	11.39	193.6	-3.000	8.11	1.99	0.39	8.93
10/24/2019	11.39	193.6	-4.000	8.12	1.94	0.35	8.92
10/24/2019	11.39	193.6	-5.000	8.13	2.06	0.44	8.91
10/24/2019	11.39	193.6	-6.000	8.14	2	0.28	8.9
10/24/2019	11.38	193.7	-7.000	8.14	1.99	0.38	8.89
10/24/2019	11.37	193.8	-8.000	8.14	2.02	0.26	8.86
10/24/2019	11.36	193.9	-9.000	8.14	1.88	0.33	8.85
10/24/2019	11.35	194	-10	8.13	2.27	0.37	8.79
10/24/2019	11.348	194.1	-11	8.13	1.93	0.44	8.76
10/24/2019	11.316	195	-12	8.09	2.02	0.38	8.58
10/24/2019	10.828	204.9	-13	7.71	2.38	0.26	5.36

10/24/2019	9.046	241.7	-14	7.38	2.13	0.03	0.33
10/24/2019	8.612	246.1	-15	7.32	3.31	0.06	0.08
10/24/2019	8.428	248.2	-16	7.3	3.36	0.03	0.01
10/24/2019	8.314	257.5	-17	7.29	10.72	-0.05	-0.02
10/24/2019	8.205	258.4	-18	7.31	13.15	0.09	-0.04

Daily Flowline Diversion and Reservoir Content Summary

		Kannah Creek Flowline									Purdy Mesa Flowline (From Juniala Reservoir Storage)				Somerville Pipeline (Brandon Ditch)			Juniata Ditch Enlarged (To Juniata Reservoir)		itch	Juniata Reservoir		Purdy Mesa Reservoir			
Date	К	annah Creek	Intake Flow	S			To Purdy	79.00							100		Honor									
	Total	Paramount 7.81	# 2 right 3.91	Upper Reservoir Releases	To Secret Ditch	To Juniata Reservoir	Mesa Reservoir	To Grand Jct Water Treatment Plant		To Grand Jol Water Treatment Plant		To Kannah Creek Water Treatment Plant		To Grand Jct Water Treatment Plant		Meter Reading	Upper Reservoir Releases	Direct Flow	To Juniata Reservoir		To Purdy Mesa Reservoir		To Grand Jct Water Treatment Plant		To Irrigation	
	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	M.G	C.F.S.	M.G	C.F.S.	M.G	C.F.S.	M.G		C.F.S.	C.F.S.	C.F.S.	A.F.	C.F.S.	A.F.	C.F.S.	A.F.	C.F.S.	A.F.
	Input	Calc	Calc	Input	Calc	Calc	Input	Calc	Input	Calc	Input	Calc	Input	Calc	Input	Input	Input	Input	Calc	Input	Calc	Input	Input	Calc	Input	Calc
November-17	277.65	233.71	43.94	0.00	0.00	251.60	0.00	26.05	16.70	96.35	61.76	2.08	1.33	11.98	7.68	8543900	0.00	0.00	33.99	67.50	0.00	0.00	0.00	0.00	0.00	0.00
December-17	252.90	236.26	16.64	0.00	0.00	242.25	0.00	10.65	6.83	93.85	60.16	2.12	1,36	18.38	11.78	20189300	0.00	0.00	78.05	155.00	0.00	0.00	0.00	0.00	0.00	0.00
January-18	12.31	103.35	66.25	1.99	1.27	23.21	14.88	9.11	5.57	0.00	56.35	111.91	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
February-18	217.68	215.41	2.27	0.00	0.00	192.30	0.00	25.38	16.27	82.70	53.01	1.77	1,14	17.47	11.20	91481200	0.00	0.00	66.30	131.67	0.00	0.00	0.00	0.00	0.00	0.00
March-18	204.79	191.81	12.98	0.00	0.00	190.50	0.00	14.29	9.16	149.57	95.88	2.14	1.37	1.93	1.24	0	0.00	93.06	46.71	92.76	60.42	120,00	0.00	0.00	0.00	0.00
April-18	221.48	214.70	6.78	0.00	0.00	202.95	0.00	10.53	6.88	205.26	132.22	2.75	1.76	0.00	0.00	47631500	0.00	31.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May-18	257.71	240.80	2.92	0.00	19.83	208.82	0.00	29.06	18.63	275.56	176.64	3.69	2.37	0.00	0.00	47631500	0.00	62.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June-18	242.72	214.59	11.94	0.00	40.07	117.41	0.00	85.24	54.64	286.29	183.52	5.20	3.33	0.00	0.00	47631500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
July-18	285.31	242.07	0.00	0.00	42.89	130.15	0.00	112.27	71.97	310.17	198.83	5.61	3.59	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
August-18	247.67	215.32	0.00	26.64	4.47	166.90	0.00	76.30	48.91	302.30	193.78	5.29	3,39	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
September-18	235.00	225.24	0.00	9.50	0.00	210.71	0.00	24.29	15.57	261.92	167.90	4.40	2.82	0.00	0.00	0	158.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
October-18	246.97	241.43	0.00	0.00	0.00	246.13	0.00	0.84	0.54	164.52	105.46	2.24	1,44	0.00	0.00	#REFI	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00
Totals	2702.19	2574.69	134.00	38.13	108.53	2182.92	14.88	424.02	271.67	2229,49	1485.51	149.21	23.91	49.76	31.90	#REF!	158.50	186.56	225.04	446.93	60.42	120.00	0.00	0.00	0.00	0.00
	1 4 4 6											Average	0.066												- 177	

Daily Flowline Diversion and Reservoir Content Summary

		Kannah Creek Flowline									Purdy Mesa Flowline (From Juniala Reservoir Storage)				Somerville Pipeline (Brandon Ditch)			Juniata Ditch Enlarged (To Juniala Reservoir)		itch	Juniata Reservoir		Purdy Mesa Reservoir			
Date	K	(annah Creek	Intake Flows	3		Land Brown	To Purdy			Verlage to			11000				Upper									
	Total	Paramount 7.81	# 2 right 3.91	Upper Reservoir Releases	To Secret Ditch	To Juniata Reservoir	Mesa Reservoir	To Grand Jct Water Trealment Plant		To Grand Jct Water Treatment Plant		To Kannah Creek Water Treatment Plant		To Grand Jct Water Treatment Plant		Meter Reading	Reservoir Releases	Direct Flow	To Juniata Reservoir		To Purdy Mesa Reservoir		To Grand Jct Water Trealment Plant		To Irrigation	
	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	C.F.S.	M.G	C.F.S.	M.G	C.F.S.	M.G	C.F.S.	M.G		C.F.S.	C.F.S.	C.F.S.	A.F.	C.F.S.	A.F.	C.F.S.	A.F.	C.F.S.	A.F.
	Input	Calc	Calc	Input	Calc	Calc	Input	Calc	Input	Calc	Input	Calc	Input	Calc	Input	Input	Input	Input	Calc	Input	Calc	Input	Input	Calc	Input	Calc
November-18	233.09	222.80	10.29	0.00	0.00	226.79	0.00	6.30	4.04	86.85	55.67	2.13	1.37	0.00	0.00	0	0.00	0.00	49.48	98.27	0.00	0.00	0.00	0.00	0.00	0.00
December-18	238.47	236.56	1.91	0.00	0.00	195.66	0.00	42.81	27.44	45.91	29.43	2.42	1.55	27.57	17.67	62523500	0.00		62.06	123.24	0.00	0.00	0.00	0.00	0.00	0.00
January-19	27.04	43.79	28.07	2.42	1.55		0.00	62523500.00	0.00	0.00	56.35	111.91	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
February-19	197.82	197.82	0.00	0.00	0.00	165.81	0.00	32.01	20.52	45.12	28.92	1.92	1.23	7.43	4.76	62523500	0.00	0.00	17.62	35.00	0.00	0.00	0.00	0.00	0.00	0.00
March-19	255.92	237.43	18.49	0.00	0.00	219.54	0.00	36.38	23.32	53.41	34.24	2.13	1.37	19.34	12.40	0	98.80	0.00	56.35	111.91	0.00	0.00	0.00	0.00	0.00	0.00
April-19	275.51	234.26	16.87	0.00	24.38	229.05	0.00	14.04	9.84	138.56	88.82	2.36	1.51	0.00	0.00	0	0.00	0.00	0.00	0.00	1.01	2.00	0.00	0.00	0.00	0.00
May-19	226.77	226.30	0.47	0.00	0.00	210.75	0.00	16.02	10.27	230.18	147.55	2.60	1.66	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June-19	170.31	170.31	0.00	0.00	0.00	166.94	0.00	3.37	2.16	325.60	208.72	15.18	9.73	0.00	0.00	0	0.00	555.60	0.00	0.00	220.02	436.95	0.00	0.00	88.12	175.01
July-19	254.97	240.70	0.00	0.00	7.56	222.29	0.00	25.12	16.10	351.02	225.01	3.84	2.46	0.00	0.00	0	116.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
August-19	246.95	240.82	0.00	0.00	5.20	202.08	0.00	32.68	20.95	346.27	221.97	4.46	2.86	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	78.90	156.70
September-19	258.31	232.60	0.00	0.00	30.69	203.08	0.00	24.54	15.73	297.20	190.51	4.07	2.61	0.00	0.00	0	158.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92.62	183.94
October-19	160.13	159.65	0.00	0.00	0.00	145.58	0.00	14.55	9.33	206.33	132.26	3.71	2.38	0.00	0.00	#REF!	0.00		0.00	0.00	0.00	0.00	0.00	0.00	38.51	76.48
Totals	2545.29	2443.04	76.10	2.42	69.38	2187.58	0.00	62523747.82	159.70	2126.44	1419.45	156.73	28.73	54.33	34.83	#REF!	373.71	617.60	185.51	368.42	221.02	438,95	0.00	0.00	298.15	592.13
												Average	0.079													