

March 2026

**COMPONENT 4: SURFACE WATER CONNECTIONS
MONITORING PLAN**

**SUSTAINABLE GROUNDWATER MANAGEMENT ACT
(SGMA) IMPLEMENTATION GRANT AGREEMENT
NUMBER 4600015877**

PREPARED FOR

TEHAMA COUNTY FLOOD CONTROL AND WATER
CONSERVATION DISTRICT



TEHAMA COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

PREPARED BY



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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
GSP	Groundwater Sustainability Plan
PMAs	Projects and Management Actions
SGMA	Sustainable Groundwater Management Act
TCFCWCD	Tehama County Flood Control and Water Conservation District

1. GOALS AND OBJECTIVES OF THE SURFACE WATER CONNECTIONS

The according to the Groundwater Sustainability Plan (GSP) and subsequent annual reports prepared for the Corning Subbasin, the Subbasin is currently in a state of groundwater overdraft (TCFCWCD 2024). In order to address this overdraft, the Tehama County Flood Control and Water Conservation District (TCFCWCD), acting as the Groundwater Sustainability Agency (GSA) for the Tehama County portion of the Subbasin and the Corning Sub-Basin GSA, acting as the GSA for the Glenn County portion of the Subbasin have developed Projects and Management Actions (PMAs) to decrease groundwater use and increase groundwater recharge.

One such project is the encouragement and enhancement of “in-lieu recharge,” that is, the use of available surface water in place of groundwater, mainly for irrigation purposes. The use of surface water, where and when available, allows groundwater to remain in the aquifer, providing a net benefit to the subbasin. In addition, surface water use can reduce or eliminate financial costs associated with pumping groundwater, which can benefit individual growers’ long-term profitability. Historically however, surface water use for irrigation has been limited, even within existing water district service areas. The cost of water delivered through water district infrastructure can sometimes be higher than the cost to pump a corresponding amount of groundwater from wells. This can create a negative feedback cycle wherein surface water users switch to groundwater use, resulting in lost revenue to the water district. Then, the water district is forced to raise the price of water to cover fixed operating costs, driving more users to switch to groundwater use. Additionally, groundwater-based irrigation systems provide a greater “on demand” capability than surface water systems, which require coordination with the water district to schedule water deliveries. For these reasons and others, many growers, especially small ones, have opted to install groundwater only irrigation systems in their orchards, despite access to surface water. The additional cost of booster pumps and filters to utilize surface water in existing drip irrigation systems can be a barrier to entry for some growers, especially those with small operations.

This project aims to utilize grant funding to assist growers with the cost of installing the necessary equipment to take delivery of surface water from their respective water district. Projects were investigated in the Corning Water District, Kirkwood Water District, and Orland Unit Water Users Association service areas for funding. Potential Projects were identified through grower outreach programs and estimated costs and potential benefits of each project were evaluated through a ranking matrix. The projects with the greatest benefit to cost ratio were prioritized for funding. In order to ensure that the in-lieu recharge benefit is realized, landowners who accepted funding for their projects agreed to take delivery of surface water when available from their respective water district.



2. SITE LOCATIONS AND DETAILS

The potential Surface Water Connection Projects were identified through landowner outreach and are located within the Corning Water District, Kirkwood Water District, and Orland Unit Water Users Association service areas. The project sites are within the Corning Subbasin. Their locations are visible on **Figure 1**. Projects were ranked based on details related to their ease of implementation, benefits to the Subbasin and other details. Projects were funded in ranked order, due to limited funding, not all projects could be implemented. Additionally, some projects could not be completed within the grant funding timeline and so were also not implemented. Details for projects which were funded and completed within the grant time period are shown in **Table 1**.

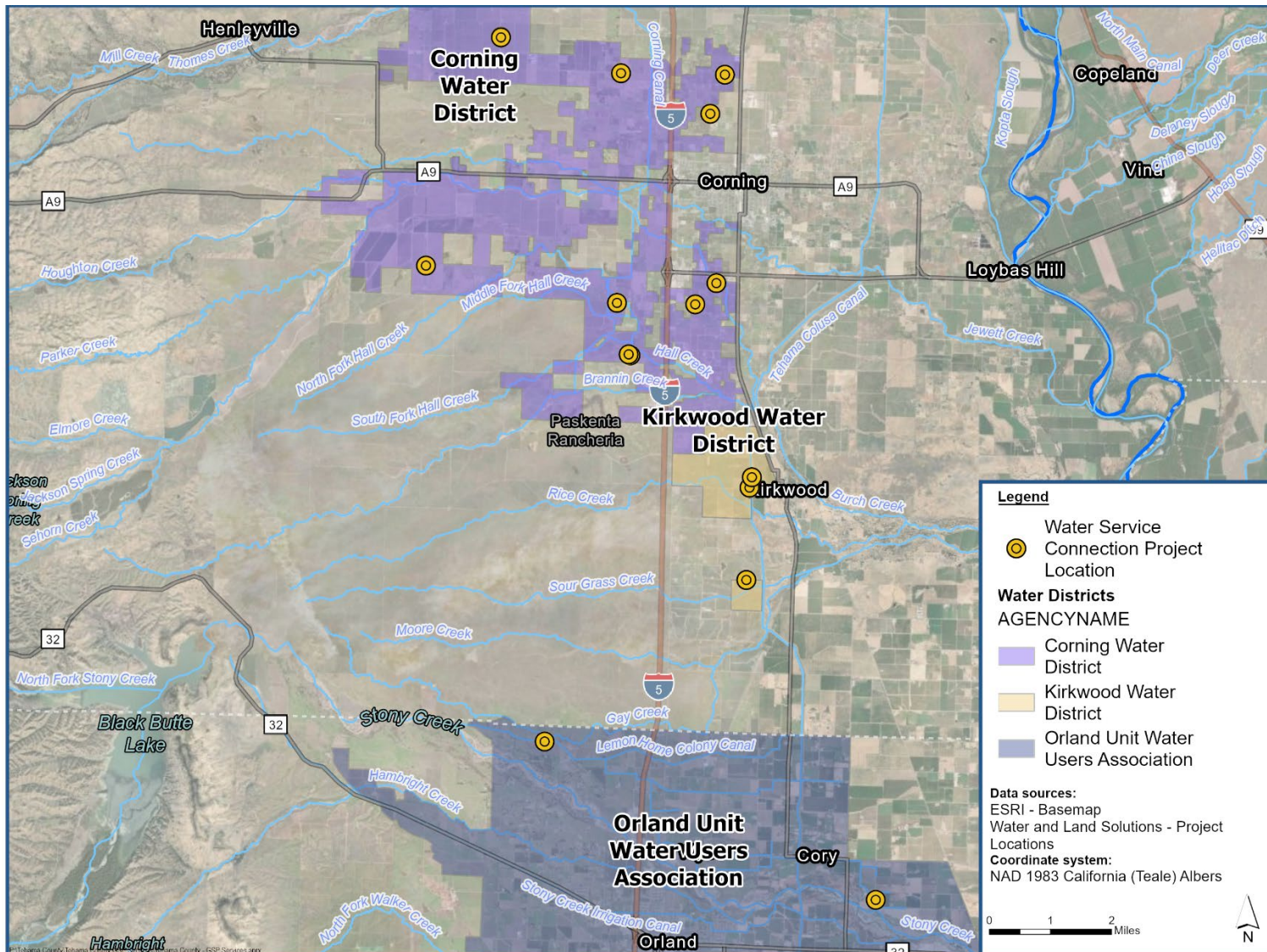


Figure 1. Investigated Surface Water Connection Project Locations



Table 1. Completed Surface Water Connection Project Details			
Project Name	Water District	Area (Acres)	Estimated Groundwater Offset (Acre-Foot/Year)
J Curiel 1	Corning WD	35	61
J Curiel 2	Corning WD	20	60
Crain - Phase 1	Corning WD	175	368
Crain - Phase 2	Corning WD	175	368
Hart Farms-Corning	Corning WD	100	202
McCasland	Orland Unit Water Users' Assn.	65	169
Keeling	Corning WD	7	16
Rush 1	Corning WD	20	51
Rush 2	Corning WD	38	77
Bingham	Corning WD	77	155

3. IMPROVEMENTS IMPLEMENTED

Projects varied by location, size and complexity. However, generally, the projects consisted of new or replacement meters from the respective water district infrastructure to connect users to the system and allow for billing for water use. In addition, most projects included booster pumps to increase water pressure from the district meter to a level needed to operate the existing drip irrigation systems on the properties. Also, many projects required filtration systems to ensure that surface water introduced into the drip irrigation systems would not clog the drip emitters. Finally, various lengths of piping, valves and elbows to connect to the existing systems account for the remainder of the equipment installed.

4. QUANTIFICATION OF PROJECT BENEFITS

The main benefit of the surface water connection projects is to offset groundwater use by replacing it with surface water when available. The potential groundwater offset for each project was based on current water use (up until now supplied by groundwater). This water use varied by crop type, but was generally between 1.75 and 3.3 acre-feet per acre. The total expected groundwater offset for all projects if fully implemented was estimated at over 2,500 acre-feet per year. However, due to financial and time constraints, the completed projects are estimated to offset around 1,500 acre-feet of groundwater use per year.

5. MONITORING AND REPORTING PLAN

Monitoring and reporting for each of the projects will consist of verification of surface water purchases by the landowner/lease holder of each project. Each landowner signed a standardized agreement outlining the purpose of their project and agreed to purchase surface water from their respective water district when such water is available and utilize it for irrigation purposes. The agreement further states that surface water shall be utilized when available through 2042, the implementation period of the GSP. In order to ensure fulfillment of the agreement, the landowner will provide invoices or other proof of purchase of surface water at the end of each irrigation season and will additionally provide volumes of any pumped groundwater if used. In cases where the landowner does not have a metered groundwater well, the GSA will utilize Evapotranspiration data to determine total water use on the property. A sample agreement is included with this document as **Appendix 1**.

6. REFERENCES

Tehama County Flood Control and Water Conservation District (TCFCWCD). 2024. Corning Subbasin Groundwater Sustainability Plan.

Appendix 1: Example Landowner Agreement

LANDOWNER GROUNDWATER RECHARGE AGREEMENT

This Landowner Groundwater Banking and Recharge Agreement (“Agreement”) is entered into on DD Mmmm, YYYY (the “Effective Date”), by and between (i) the Tehama Flood Control & Water Conservation District (“District”), and (ii) Xxxxxxx Xxxxxx (“Landowner”). District and Landowner shall sometimes be referred to herein individually as a “Party” and jointly as the “Parties”.

RECITALS

1. The District’s Board of Directors has been awarded SGMA Round 2 implementation grant funding through the California Department of Water Resources (“DWR”) for GSP implementation activities in the Corning Subbasin which includes the planning, feasibility, design, implementation, and/or monitoring of approved groundwater recharge projects (“Projects”) to improve groundwater sustainability in the region. Landowner participation in the Projects is a key element in establishing long term in-lieu groundwater recharge goals and achieving recharge benefits.
2. The purpose of the Projects is to expand groundwater recharge capacity within the District’s service area boundaries to enhance groundwater resources for the benefit of its landowners and water users.
3. The policy for landowners wishing to participate in the Projects requires that any Landowner wishing to participate in an approved Project funded with DWR grant funds enter into this Agreement.
4. Landowner is an owner of certain real property situated within the District’s boundaries, which property is more particularly identified in Exhibit “1”, attached hereto and incorporated herein (the “Property”).
5. Landowner has participated in the Project and received direct benefit from DWR grant funds that resulted in the planning and implementation of the following facilities on its property more particularly identified in Exhibit “2”) that will facilitate annual in-lieu groundwater recharge.
6. Landowner intends to achieve in-lieu groundwater recharge (of approximately XX acre-feet per year) through Project implementation in the designated in-lieu recharge area as identified in Exhibit “3”.
7. Capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the Project.

NOW, THEREFORE, in light of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE I LANDOWNER PARTICIPATION, FACILITIES QUALIFICATION, AND TERM

- 1.1 Landowner is the lead proponent and participant in the Project, the Project is on the District’s approved fundable list that is funded through DWR grant funds, and has constructed new surface and/or subsurface in-lieu recharge facilities (the “Facilities”) paid for by DWR grant funds, and desires for Landowner’s Facilities to be included in the Project. Integral to the

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Project and this Agreement is the District's desire to share approved DWR grant funds (up to \$XX,XXX.XX) for constructing and utilizing the new Project facilities in exchange for Landowner's commitment to annually purchasing surface water and diverting available surface water through the Facilities as available for use in lieu of groundwater in the Project groundwater recharge area as depicted in Exhibit 3.

1.2 The District will not be providing the Landowner with any capital or operational funds for Project implementation activities which are expected to occur over the 2026 through 2042 period. The Landowner shall provide the District with Project site access as needed (on a mutually agreed to schedule) to review Project operations and determine annual in-lieu recharge quantities. Landowner will provide District with appropriate records to determine in-lieu recharge quantities including surface water purchase documentation and groundwater extraction data. In the event that groundwater extraction on the property is not metered, publicly available Evapotranspiration (ET) data will be used to determine total water use and groundwater extraction will be calculated as total water use minus surface water use. This data will not be attributed to any specific landowner during reporting but will be utilized to determine the net benefit of the implemented Project. This provision shall automatically terminate upon termination or expiration of this Agreement.

1.3 After the Facility is capable of dispensing available surface waters, Landowner shall purchase surface water that can be diverted through the Facility and so divert that purchased surface water within the Project groundwater recharge area as depicted in Exhibit 3 for the entire duration of the project. If Landowner fails to purchase and dispense surface water that is available, Landowner shall reimburse the District for its contribution of the costs of the facility up to an including the entire District contribution prorated based on the amount left unpurchased as compared to the overall estimated surface water that could be diverted over the duration of the project.

ARTICLE II CONSTRUCTION CONTRIBUTION

2.1 District will contribute to the cost of constructing any new Facilities as depicted in Exhibit 2 using approved DWR grant funds. As to surface Facilities, to be eligible for receiving DWR grant funds prior to commencing construction Landowner and District will jointly approve Facilities to be constructed as part of the Project and the Landowner will provide a copy of the plans for constructing the Facilities (the "Plans") and provide District the opportunity to collaborate on design and construction of the Facilities. Nothing herein shall obligate District to so collaborate; however, if District exercises its right to do so, District shall not be obligated to review such Plans for quality, design, compliance with applicable law or any other matters, and, District shall have no liability or responsibility whatsoever in connection with the review of the Plans, including but not limited to any omissions or errors contained therein, and except for the Contribution, in connection with the construction or permitting of the Facilities.

2.1.3 As to any existing Facilities, to be eligible for the Contribution, Landowner shall provide District a copy of the Plans for such Facilities

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ARTICLE III DISTRICT DWR GRANT FUNDS FOR FACILITIES CONSTRUCTION

3.1 The District shall cover the costs of approved Facilities design and construction covered by the approved DWR grant funds (not-to-exceed \$XX,XXX.XX) as indicated on the final Plans, provided the Landowner operates the Facilities meeting annual in-lieu groundwater recharge targets for the duration of the term of the Agreement. Any additional Project costs would be the responsibility of the Landowner.

ARTICLE IV LANDOWNER WATER IMPORTS AND MANAGEMENT

4.1 As to any surface water that Landowner secures for Project implementation, Landowner shall be responsible for all costs and losses, including without limitation evaporative or seepage losses, associated with acquiring and conveying surface water to the recharge area as depicted in Exhibit B.

ARTICLE V. ADMINISTRATION, OPERATIONS, AND MAINTENANCE

5.1 All of Landowner's in-lieu groundwater recharge activities shall be coordinated with the District during the Project implementation period. In-lieu groundwater recharge quantities cannot be transferred for use outside of the designated groundwater recharge area as depicted in Exhibit 2, and transfer activities undertaken pursuant to this Agreement shall be coordinated with the District, and District shall maintain all Account records. Landowner shall be responsible for all operations and maintenance of surface Facilities, including all operations and maintenance (O&M) costs. Furthermore, the Landowner shall be responsible for purchasing available surface water supplies to be delivered through the Project Facilities for in-lieu groundwater recharge purposes. Landowner is responsible for any repairs or damage related to Facilities O&M and is responsible for maintaining the surface water diversion turnout and related diversion facilities. Future costs associated with replacement of Facilities used for groundwater recharge purposes shall be the responsibility of the Landowner. The District will in good faith work with the Landowner to secure future grant funding for Facilities replacement costs and activities.

ARTICLE VI LIABILITY AND INDEMNIFICATION

6.1 Landowner shall be solely responsible for any and all activities related to the operations and maintenance of the Project Facilities in order to meet in-lieu groundwater recharge objectives. Landowner shall be responsible for any and all Claims related to the control, carriage, handling, use, disposal, or distribution of water past the Point of Delivery. Without limiting any other term of this Agreement, Landowner shall indemnify, defend and hold District, its directors, officers, employees, agents, successors and assigns harmless from and against any damage or claim of damage of any nature whatsoever, including property damage, personal injury or death, or violation of any statutory or regulatory requirement related to Landowner's activities provided for herein, and including attorneys' fees and other costs of litigation ("Losses"), arising out of or connected with this Agreement, any costs incurred in connection with the activities authorized by this Agreement, use of any allegedly patented technology, and the control, carriage, handling, use, disposal, or distribution of water that is the subject of the Agreement within the in-lieu groundwater recharge

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area depicted in Exhibit B. District makes no representation, warranty or guarantee concerning the same and shall not be liable for any consequential, incidental, or other special damages incurred by Landowner or any third-party in connection with the Project or this Agreement or termination thereof for any reason (“Special Damages”). Consistent with the foregoing, the Parties agree that District’s rights of indemnification provided for herein shall extend to third-party Claims for Special Damages. No rights of indemnity herein shall extend to an indemnified Party to the extent any Claim or Loss is caused by the acts or omissions of the indemnified Party. The rights and responsibilities of the Parties set forth in this Article 7 shall survive the expiration or termination of this Agreement.

ARTICLE VII TERM AND TERMINATION

7.1 This Agreement shall be subject to termination as follows: By written notice of District to Landowner that Landowner is in breach of this Agreement, which termination shall be effective thirty (30) days following Landowner’s receipt of said notice if Landowner has not by then cured its breach.

7.1.1 If the breach is financial, Landowner’s cure period shall be ten (10) days, District’s remedies under this Section shall include all rights and remedies available to it at law and equity, and shall not be limited to termination of this Agreement. Such remedies could include, without limitation, payment to District of all or any portion of a Contribution, or other compensation provided to Landowner pursuant to this Agreement.

7.1.2 Without limiting Section 7.1.1, if this Agreement is terminated by District for Landowner’s failure to adhere to Section 3.1 above, Landowner shall be responsible for reimbursing District for the Contribution in an amount that is proportional to the number of years remaining in the initial 10-year term.

7.1.3 Upon termination of the Policy by the District’s Board of Directors for any reason, in which case District shall not be entitled to any compensation for the Contribution, or other compensation provided to Landowner pursuant to this Agreement. 8.1.4 Landowner shall have full responsibility for the Facilities following termination of this Agreement for any reason, including responsibility for maintenance, operation, or removal of the Facilities.

ARTICLE VIII MISCELLANEOUS

8.1 Disclaimer. Any credit to Landowner’s Account that Landowner might derive from this Agreement and the activities undertaken in connection herewith shall be subject to the terms and conditions of this Agreement, the District’s Rules and Regulations, the Policy, and other applicable laws, regulations and ordinances, including without limitation SGMA as interpreted, implement and enforced by (i) District and (ii) any public agency or court of competent jurisdiction. Consistent with the foregoing, any construction or application of this Agreement shall be subject to the general principle stated in the Policy that all activities undertaken in connection with this Agreement and the Policy shall be subordinate to the primary function for which District developed its recharge capacity.

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8.2 Further Assurances. Each Party will, from time to time as necessary to the fulfillment of this Agreement, perform, execute, and deliver all such further acts, agreements, and assurances as may be reasonably required to effectuate the terms and conditions hereof.

8.3 Construction. The Policy is incorporated into this Agreement by reference, and in the event any term or condition of this Agreement directly conflicts with the Policy, the Policy shall control.

8.4 Force Majeure. Except as otherwise provided herein, all obligations of the Parties will be suspended so long as, and to the extent that, the performance thereof will be prevented by Force Majeure including without limitation earthquakes, fires, tornadoes, facility failures, floods, drowning, strikes, other casualties or acts of God, orders of court or governmental agencies having jurisdiction over the subject matter hereof, or other events or causes beyond the control of the Parties.

8.5 Assignment. This Agreement is not subject to assignment by either Party hereto without the prior written consent of the other Party.

8.6 Governing Law. This Agreement shall be governed and interpreted by and under the laws of the State of California.

8.7 Entire Agreement. This Agreement supersedes all prior discussions and agreements between and among the Parties with respect to the subject matter hereof and contains the sole and entire agreement between and among the Parties with respect thereto. This Agreement shall not be amended except by a written instrument signed by both Parties.

8.8 No Third Party Beneficiaries. This Agreement is entered into solely for the benefit of the Parties hereto. No beneficial or legal interest is created in any other person or entity not a Party to this Agreement.

8.9 Waiver. Any waiver, at any time, by a Party of its rights with respect to a breach or default, or any other matter arising in connection with this Agreement, will not be deemed to be a waiver with respect to any other breach, default or matter.

8.10 Attorneys' Fees. If legal action or other proceeding is commenced as a result of a dispute which arises under or relates to any provision of this Agreement, the losing Party will pay the prevailing Party's actual attorneys' fees, costs, expert witness fees and other expenses incurred in preparation for and conduct of that action or proceeding, appeal of judgment, and enforcement and collection of judgment or award.

8.11 Notices. All notices, requests and other communications hereunder shall be (i) in writing, (ii) deemed delivered upon receipt, and (iii) made by personal delivery, or Registered or Certified Mail, postage prepaid, to the Parties.

8.12 Counterparts. This Agreement may be signed in counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

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IN WITNESS WHEREOF, as of the Effective Date the Parties have accepted, made and executed this Agreement upon the terms, conditions, and provisions stated above.

TEHAMA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

_____ / _____

Name/Title

Signature: _____ Date ____ / ____ / ____

LANDOWNER

_____ / _____

Name/Title

Signature: _____ Date ____ / ____ / ____

Exhibits:

- 1- Property Location and Boundaries
- 2- Project Plans/Description/Quote
- 3- Expected Project Benefit Table