

then release the water in the low-flow summer months for stream augmentation and municipal use. The Calapooya Creek, the only water source for the City of Oakland, has been recorded by the USGS at flow rates of zero in past years. This feasibility study will help us reach this goal by conferring with state agencies and completeing the anaysis required to determine if the existing pond is an appropriate site for this type of water storage project.

IV. Grant Specifics

Section A. Common Criteria

Instructions: Please answer all questions contained in this section. It is anticipated that completed applications will result in additional pages.

1. Describe your goal and how this study helps to achieve the goal.

The goal of this feasibility study is to provide information on all aspects of the expanded agricultural pond project to supply raw water to Oakland in times of drought including: the suitability of the City's property for the expansion, the necessary requirements to comply with state and local agencies with an interest in the proposed expansion, the impacts of the expansion on neighbors and its potential benefits to the City of Oakland. The goal of this feasibility study is to determine if the City of Oakland can enhance an existing agricultural pond to store 50 million gallons by cleaning the pond, and applying for a storage water right and a water use right to then release the water in the low-flow summer months for stream augmentation and municipal use. The Calapooya Creek, the only water source for the City of Oakland, has been recorded by the USGS at flow rates of zero in past years. This feasibility study will help us reach this goal by conferring with state agencies and completing the analysis required to determine if the existing pond is an appropriate site for this type of water storage project.

2. Describe the water supply need(s) that the proposed project addresses. Identify any critical local, regional, or statewide water supply needs that implementation of the project associated with the feasibility study will address. **Responses should rely upon solid water availability and needs data/analysis.** For examples of water supply needs see "Criteria and Evaluation Guidance Document."

The City of Oakland needs a minimum of 80 acre feet of municipal water for the last three months of Summer. The Calapooya does not have enough water flow in the last three summer months to supply the need and the flow has been recorded at zero by the USGS in past years. The Calapooya has been identified by the Umpqua Basin Watershed Council's Calapooya Creek Watershed Assessment as a critical tributary for fish habitat and two cities use the stream as a critical source of water. Oakland holds the oldest water right on the Calapooya Creek (Certification 104 from 1909 with point of diversion NW1/4 SW 1/4 Section 4, Township 25S, range 5W) This is Oakland's only raw water source and it runs extremely low during the summer months. The City's right is to withdraw up to 2cfs all year, but in the summer the flow rates have reached 0 below the city's raw water intake. The stream augmentation pond will accomplish two beneficial things: the City will be able to continue to draw from a portion of its water right amount, approximately 150,000 gpd or .5 acre feet per day, and will allow the agreed water flow to pass the intake when the pond is in use, thus the City will utilize 50% of the pond water released for municipal purposes and 50% will flow back into the creek. Oakland has 1 mgd of finished water storage in tanks for fire suppression, but this does not include emergency storage for extreme fire events which are more prevalent during summer months. In addition to providing critical information on an enhanced water source for the City, this study will examine the impact of the water released into the stream, enhancing habitats for fish and wildlife during drought months. The City of Oakland met with the Water Master for Region 5 and he indicated that a storage right and a usage right will be needed, and that water was available in the winter months for a one time fill of the storage pond. See attached USGS Published stream flow data for various years.

3. Explain how the proposed project will meet the water supply need(s), and indicate what percentage of that need will be met. (For example: If your water supply need is 20,000 acre-feet of additional water and the project will supply 10,000 additional acre-feet, 50 percent of your need will be met).

The City of Oakland would be able to meet 100% of its water needs in the late summer months with the construction of this storage pond. The City of Oakland summer water need is 80 acre feet of water over a three (3) month period when creek flow hovers at .1cfs. (see attached) Approximately 100% of the municipal water need or 80 acre feet of water will be met by using the agricultural pond and an additional 80 acre feet of water could be used

to augment the Calapooia Creek flows for fish, wildlife and tourism. The City will seek guidance from OWR to set the actual water release ratio, as it is dependant upon actual stream flow measurements.

4. Describe the technical aspects of the feasibility study and why your approach is appropriate for accomplishing the specific study goals and objectives.

The City of Oakland has tentatively discussed the project with all of the State and Government agencies involved and they have indicated that the cleaning of the existing pond and obtaining a water right might be limited to descriptive narration based application and that detailed studies, such as a wetland studies or environmental impact studies, might not be needed in this instance due to the location of the pond. ODF&W, OSL and US Corps of Engineers have agreed to meet during the feasibility study and discuss options that might reduce the need or requirement for expanded studies and they have indicated a willingness to issue letters stating that due to the limited scope of the project and its limited environmental impact, basic research might be sufficient. As a result of this initial discussion, we feel this limited feasibility study will meet the needs of this project.

Technical aspects for planning and enhancement of the off-channel reservoir of the feasibility study include:

Assessing and verifying probable environmental impacts through Oregon Department of Environmental Quality, Oregon Health Authority, Oregon Water Resources, Oregon Department of Fish and Wildlife, Oregon State Lands and the U.S. Corp of Engineers. Applying for required permits from these agencies and departments.

Application for two (2) Water Rights Permits, one for water storage and one for water use, through the local Water Master for Region 5.

5. Describe how the feasibility study will be performed. Include:

- a. General summary statement that describes the study progression.
- b. When the feasibility study will begin.
- c. Listing of key tasks to be accomplished with each task having:
 - i. Title
 - ii. Timeline for completion
 - iii. Description of the activities to be performed in this key task
 - iv. Description of the resources necessary for accomplishing the key task

Example:

- (i) Streamflow measurement;
- (ii) September-April;
- (iii) Weekly streamflow measurements will be performed to gather hydrographic data for the hydrologic analysis to take place in May;
- (iv) A technician will be hired to perform the streamflow measurements.

(Key tasks listed here are to be placed in Section VI. Project Feasibility Study Schedule for a quick reference “graphical” representation of the schedule.)

The Feasibility Study, following the approval of all funding sources, will proceed in the following manner:

The City of Oakland is ready, willing and able to move forward with this project immediately. The City has already made initial contacts with all of the State Agencies listed above and explained the scope and intent of the project and its location. It is our understanding that DEQ and DHS might send letters of no comment, as this project falls outside DEQ and DHS regulations. ODF&W is interested in stream modifications, fish screens and potential for water to enter the pond, and have

offered several solutions to limit environmental impacts. Oregon State Lands indicated that habitat projects are a free permit process and that a limited permit application for pond cleaning is required; as the pond is located in an existing waterway, as such a wetland study may not be required. The Water Master has indicated that a water storage right and a water use right are required and that water to fill the pond is potentially available in the winter months. The City has contacted Oregon Water Resources directly and we are not aware of any other requirements. As such, the City of Oakland intends to invite all of these parties to attend a meeting to review the proposed engineered drawings, environmental factors, application proposal and to discuss any required modifications prior to submission of applications and letters to complete this feasibility study. The City intends to collect all information, applications and quotes to be submitted as a simple and straightforward feasibility study report. This report is intended to support the feasibility of the project to clean the existing pond and use the water for municipal purposes and stream augmentation in late summer.

i. Task: Meet with Governmental Agency Representatives

ii. Timeline: July 2016

iii. Activities description: Understanding Applications, Permits and Water Right Requirements; The City of Oakland will meet with all State of Oregon Agencies and Federal Agencies in one meeting to discuss the project and verify the requirements. The City of Oakland needs to limit its scope to the study of data that actually represents the minimum required to achieve approval to clean out its existing pond, install an irrigation ditch and transport water to the stream and the intake. The purpose of the meeting is to understand and document the minimum requirements to achieve this goal and obtain a letters stating whether additional studies are required.

iv. Description of Resources Needed: This part of the project will require City staff time creating preliminary drawings and preparing project explanations for meetings with local agency representatives. OSL and US Corps of Engineers have indicated the need to complete application text and descriptions for the habitat process.

i. Task: Water Rights

ii. Timeline: August 2016

iii. Activities description: Water Right Application - Permit Amendment - allows storage for off-channel 160 acre-feet of water, release of water into Calapooya Creek and amends existing water right stream. While no impacts are expected, study will center on other water users, the environment, permitting issues and water flow measurements and reporting.

iv. Description of Resources Needed – Meeting with Water Master to review how the new water right would be applied and how it effects the City's existing water rights. Also to review the text used on permit applications for water right and understanding stream flow measurement requirements.

i. Task: Reports & Applications

ii. Timeline: September 2016

iii. Activities description: Study environmental impacts and determine if any explored during the earlier meetings in July 2016 will apply to other water users within the watershed, to fish and wildlife or archaeological elements in relation to the project Determine what permits are necessary and obtain them.

iv. *Description of Resources Needed: City of Oakland staff will contact local tribes, Umpqua Basin Watershed, State and Local Fish and Wildlife organizations to gather information regarding potential impacts.*

i. *Task: Hydrological investigation*

ii. *Timeline: October 2016*

iii. *Activities description: Hydrological investigation by utilizing OSL (free application) study process program for habitat; to determine 50 percent exceedance water availability analysis, including return of stored water to creeks and waste reduction; if required following July 2016 meeting.*

iv. *Description of Resources Needed: This part of the study will involve staff from the City of Oakland, OSL and US Corps of Engineers representatives who provide much of this information as part of the habitat application process.*

i. *Task: Geotechnical investigation*

ii. *Timeline: November 2016*

iii. *Activities description: Geotechnical investigation, if required, after July 2016 meeting. Brush site to confirm surface characteristics and to provide access to excavate test pits. Geotechnical site visit and report. This includes a one-day site visit to study site and dig test pits. Materials will be tested at a lab to verify whether materials can be used for reservoir construction. Determine how terrain will have to be modified for seismic requirements, if any. Engineering Drawings*

iv. *Description of Resources Needed: This part of the study will involve staff from the City of Oakland, OSL and US Corps of Engineers who provide much of this information as part of the habitat application process.*

i. *Task: Meet with Governmental Agency Representatives*

ii. *Timeline: December 2016*

iii. *Activities description: City of Oakland will invite all State of Oregon and Federal Agencies to a meeting to discuss the feasibility study text and verify findings which will include letters from agencies with requirements pending or no requirements necessary to achieve the goal. The City will complete the study text with findings and requirements for submission to each agency.*

iv. *Description of Resources Needed: This part of the study will involve staff from the City of Oakland preparing the report of findings for review by the State and Federal Agencies identified in this document, scheduling a combined meeting and preparing conclusions from input at the meeting.*

i. *Task: Final cost estimate preparation*

ii. *Timeline: September 2016*

iii. *Activities description: Design analysis to verify proposed preliminary proposal. Prepare final cost estimates for construction, operation and maintenance expenses. Complete the text for the feasibility study and submit findings.*

iv. *Description of Resources Needed: This part of the study will involve staff from the City of Oakland.*

6. Please provide the following data and information for the proposed project and the project's sources of water supply:

- a. The location of the proposed project. Include the basin, county, township, range and section. Attach a **map** that identifies the project's implementation area to this application.

The location of the project is on property owned by the City of Oakland at 840 Green Valley Road, Oakland, OR 97462. This property is located in the Umpqua Basin Watershed at Township 25, Range 05W, Section 08 in Douglas County, Oregon. See attached project implementation map and watershed map.

- b. The name(s) and river mile(s) of the source water and what they are tributary to, if applicable.

The delineation of the source water protection area for the Oakland water system consists of a watershed 101 square miles that includes a number of tributaries to the Calapooia: Cabin Creek, Pollock Creek, Bachelor Creek, Oldham Creek, Driver Creek, Foster Creek, Banks Creek and Long Valley Creek. Calapooia Creek is a tributary of the Umpqua River. The length of the Umpqua River is 111 miles and the mouth of the Calapooia is located approximately 95 miles from the mouth of the Umpqua river to the Pacific Ocean.

- c. Whether the project will be off-channel or on-channel (for above-ground storage only).

The project reservoir is off-channel.

- d. Water availability to meet project storage. For above-ground storage the Department typically evaluates availability using a 50 percent exceedance water availability analysis.

The USGS Near Real-Time Stream Gage measures Calapooia stream flow data from 1964 to the present with a low flow of zero (0) during the months of August and September and an all-time high of 20,000 cfs during the months of October through April. The mean flow on the Calapooia is 2120 cfs during winter/spring months and the City of Oakland will apply for a one-time fill of a pond/reservoir during the months of December through April totaling 50,000,000 gallons or approximately 160 acre feet of water.

- e. Proposed purposes and/or uses of conserved or stored water.

50% of water for municipal water use and 50% for stream augmentation during the summer months.

- f. Environmental flow needs and water quality requirements of supply source water bodies.

The Calapooia Creek is subject to upstream demands by municipal and agricultural users during the dry summer months. Reports indicate that stream flows drop considerably during this period of time; which impacts water availability to the City's raw water intake, at times dropping to 0 cfs. This project would allow raw water to be released at the City's intake with 50% of the storage water augmenting the stream below the intake to benefit fish and maintain and enhance stream habitat. The study would show the impacts of returning water to the creek during summer months.

7. What local, state or federal project permitting requirements/issues/approvals do you anticipate in order for the feasibility study to be conducted? If approvals are required, indicate whether you have obtained them. If you have not obtained the necessary permits/governmental approval, describe the steps you have taken to obtain them. If no permits are needed, please provide explanation.

What local, state or federal project permitting requirements are anticipated?

The City has already made initial contact with all State Agencies listed above and has explained the scope and intent of the project and its location. It is our understanding that DEQ and DHS may provide letters of no comment, as this project falls outside DEQ and DHS regulations. ODF&W is interested in stream modifications, fish screens and potential for water to enter the pond. ODF&W has offered several solutions to limit environmental impacts. Oregon State Lands has indicated that habitat projects are a free permit process and that a limited permit application for pond cleaning is required; since the pond is located in an existing waterway a wetland study may not be required. The Water Master has indicated that a water storage right and a water usage right are required, and that water for the pond is potentially available in the winter months. The City has contacted Oregon Water Resources directly and is not aware of any other requirements. As such, the City of Oakland intends to invite all of these parties to a meeting to review the proposed engineered drawings, environmental factors and application proposal; to discuss any required modifications prior to submission of applications and letters for the feasibility study. The City intends to collect all of this information, the applications and the quotes, and submit a simple and straightforward feasibility study report indicating whether it is feasible to clean our existing pond and use the stored water for municipal purposes and stream augmentation in late summer. The steps to obtain the applications and permits will be outline in the meeting with the agencies identified in the feasibility study.

The City of Oakland has not obtained any permits or applications: The applications needed are as follows:

Two Water Right Permits for(1) storage and (2) use of raw water.

Consultation and applications for permits with the following:

- 1. Oregon State Lands*
- 2. United States Corp of Engineers*
- 3. Oregon Department of Environmental Quality*
- 4. Oregon Water Resource Department*
- 5. Oregon Health Authority*
- 6. Oregon Department of Fish and Wildlife*
- 7. Local Water Master of Region 5*
- 8. Describe the level of involvement, interest and/or commitment of local entities associated with the feasibility study. Describe how the feasibility study and/or proposed project will benefit/impact these entities. Attach letters of support if available.*

Letters of interest have been attached herewith.

The local fire department struggles to meet fire suppression demand requirements as a result of the lack of water during the summer months. The school district can not maintain its facilities during the summer months due to a shortage of water. The streams have flows below 0.1 CFS and sometimes are published by USGS as zero which

means that fish habitat has been diminished. A stream augmentation pond and storage pond is addressed in this feasibility study and its implementation directly benefits these local entities.

The City of Oakland has previously contacted all of the State departments and agencies listed to explain the project and do preliminary research on issues that could come under each jurisdiction:

- 1. Oregon State Lands representative has indicated that habitat projects have a free permit process. There is a limited permit application for pond cleaning that is required since the pond is located in an existing waterway. The location of the pond, as we understand it, means it will not be subject to a wetland study.*
- 2. US Corp of Engineers*
- 3. DEQ and DHA representatives have indicated that the project falls outside their area of regulation.*
- 4. Oregon Water Resource Department preliminary contact indicated there are no requirements for the project thus far.*
- 5. DHA see 3.*
- 6. Oregon Department of Fish and Game representative is expected to provide a letter of limited comment regarding stream augmentation practices to protect fish.*
- 7. The local Water Master has indicated that Oakland will be required to apply for two water rights, one for storage and one for use at a cost of \$5000.*

Oakland intends to arrange a meeting with representatives from all of the above agencies and departments to review the proposed project with preliminary drawings, to discuss environmental factors and application requirements. From this meeting suggested and required changes will be made to the project design.

- 9. Identify when matching funds will be secured, from whom, and the dates of matching funds availability. Matching funds, both cash and in-kind, have been identified and reserved for this use. The funds are available immediately and they are present in the utility accounts of this fiscal year and next by the authority of James M. Hart, the Director of Public Works for the City of Oakland, who has ability to bind the City into agreements requiring cash contributions under \$5000 and in-kind without limit.*
- 10. Provide a description of the relevant professional qualifications and/or experience of the person(s) that will play key roles in performing the feasibility study. If the personnel have not been decided upon, include a description of the professional qualifications and/or experience of the person(s) you anticipate will play key roles in performing the feasibility study.*

Licensed Water Operator, Cross Connection Specialist - James Hart, Laser Engineer, Project Manager - Mr. Hart is currently the Director of Public Works for the City of Oakland and he has 26 year of experience in the design of environmental sensors, storage basin monitoring, flow control technologies, and has operated several large corporations that installed equipment for water treatment plants and wastewater treatment plants. Mr. Hart has a Level 3 Water Treatment operator license, a

Level I Distribution operator license and as Level II Collections operator license and a Cross Connection Specialist license.

Civil Engineer - Michael Parker -MAP Engineering, Inc. -

Mike A. Parker, PE - President is a principal and senior level project manager with over 31 years of experience in engineering projects. Mr. Parker has extensive knowledge of the local area and conditions having practiced engineering in Oregon since 1981, with the exception of two years spent in the state of Washington. Mike is licensed to practice engineering in Oregon and Washington.

Licensed Surveyor - David Edwards -

David Edwards Land Surveying was founded in 1996 in Oakland, Oregon. Mr. Edwards was licensed as a registered professional land surveyor in Oregon in 1988 and worked in the Medford area prior to moving to Oakland in 1996. Mr. Edwards currently works from a home office and employs 1 assistant.

11. If the project concept is ultimately deemed feasible, describe how the project will be implemented. Response should include a tentative funding plan for project implementation (e.g. other state or federally sponsored grant or loan programs) and the project proponent's track record in implementing similar projects.

If the project concept is ultimately deemed feasible, the City of Oakland has utility money set aside to enhance the pond and the City plans to submit another application/grant request to OWR to match funds with the City to pay for the actual dirt removal from the pond, the excavation cost and the irrigation ditch construction, pipe placement and flow gages required to satisfy state water right requirements.

The City of Oakland already has the excavation equipment and the in-house staff and or City contractors who have many years of experience with pond excavation and the City believes that the limited scope of the project does not merit quotes from large industrial contractors. See attached - Oakland Public Works Director and Staff are very familiar with this type of project and successfully complete like components of the actual project several times a year.

Section B. Unique Criteria

Instructions: Address the set of items below that applies to the type of feasibility study that this grant will fund.

Water Conservation or **Reuse**

1. Water Conservation or Reuse projects that are identified by the Department in a statewide water assessment and inventory receive a preference in the scoring process. Contact the Department's Grant Specialist to include your project on the inventory.

Does not Apply!

2. Explain how the associated project will either: (a) mitigate the need to develop new water supplies and/or (b) use water more efficiently. Reference documentation and/or examples of the success of similar or comparable water conservation/reuse projects that would be available upon request.

Does not Apply!

3. Provide a description of: (a) Local, state and/or federal permitting requirements and issues posed by the **implementation** of the project associated with the feasibility study and (b) property ownership status within the project implementation area. If permitting or other approvals are not needed please indicate and provide an explanation.

Does not Apply!

Above-Ground Storage

Please answer the following three questions **BEFORE** proceeding:

- Will the project divert more than 500 acre-feet of surface water annually? Yes No
- Will the project impound surface water on a perennial stream? Yes No
- Will the project divert water from a stream that supports sensitive, threatened or endangered species? Yes No

If you answered "Yes" to any of these questions, by signature on this application, you are committing to include the following required elements in your feasibility study.

Describe how you intend to address the required elements in your feasibility study:

- a) Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows.

The intent of the feasibility study is to address the ecological impacts of storing and releasing raw water to augment stream flows and use the water for municipal purposes. The study will identify periods for optimum ecological raw water diversion and optimum ecological raw water release. .

- b) Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives.

The study will consider a comparative analysis of alternative means to provide raw water support for Oakland during dry summer months. This study will address the costs and benefits associated with the plan and other long term water supply alternatives. Oakland has done preliminary assessments of the following alternatives: enlarging or dredging Calapooya Creek, erecting a dam on the creek, constructing additional treated water storage facilities, connection to adjacent cities with an inter-tie, additional conservation measures and purchasing water from other sources. The feasibility study will formally address the preliminary comparative analysis.

- c) Analyses of environmental harm or impacts from the proposed storage project.

The study will examine possible environmental impacts from the storage and release of raw water into Calapooya Creek, identifying any sensitive or threatened species that may be affected.

- d) Evaluation of the need for and feasibility of using stored water to augment instream flows to conserve, maintain and enhance aquatic life, fish life and any other ecological values.

The feasibility study will evaluate the augmentation of stream flows as they may affect fish, aquatic life and other ecological concerns. The study will describe the current flow conditions and the anticipated post reservoir flow conditions which will be evaluated for their ecological quality.

Is the proposed storage project for municipal use?

Yes No

If “Yes,” then please describe how you intend to address the following required element in your feasibility study:

- e) For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project’s relationship to existing and planned water supply projects.

A copy of City of Oakland Water Management Plan includes current and projected water demand rates for the City and is available upon request.

Proceed in addressing the following items:

1. Describe to what extent the project associated with the feasibility study includes provisions for using stored water to augment instream flows to conserve, maintain and enhance aquatic life, fish life or other ecological values. Projects that include the above provisions receive preference in the scoring process.

The intention of the project is to divert water to an enhanced reservoir during high winter creek flows and to augment the stream flows with 50% of the diverted water during the low summer flows. Although there are no currently listed endangered or threatened fish in Douglas County, the low summer flows in the Calapooya have effectively eliminated a favorable fish habitat.

According to the 2003 Umpqua Basin Watershed Council’s Calapooya Creek Watershed Assessment and Action Plan the following are some of the fish species with established populations and runs within the Calapooya Creek Watershed that are being diminished: Steelhead, Coho, Chinook, Cutthroat Trout, Western Brook Lamprey, Pacific Lambrey, Umpqua Dace, Umpqua Pke Minnow, Redside Shiner, Largescale Sucker. The report lists activities that will assist in improving fresh water conditions for fish runs: removing barriers to fish passage, increasing instream flows, and improving critical habitat in streams and estuaries. The proposed project will increase instream flows by first taking less water out of the Calapooya and second by augmenting the low flows in summer.

2. Provide a review of: (a) Local, state and/or federal permitting requirements and issues posed by the **implementation** of the project associated with the feasibility study and (b) property ownership status within the project implementation area.

The property within the project implementation area belongs to the City of Oakland, aside from relocating some irrigation fields and fences, there will be no impacts.

Anticipated permitting includes the following (some certain, others anticipated)

1. Two Water Rights permits, one for storage and one for use.
2. State Lands and Corp of Engineers - simple no-fee permit to clean the existing pond
3. Department of Fish and Wildlife - none identified at preliminary discussion
4. Right-of-way permission from two (2) landowners for pumping water north of City intake.

Storage Other Than Above-Ground [Including Aquifer Storage and Recovery (ASR)]

Please answer the following three questions **BEFORE** proceeding:

- Will the project divert more than 500 acre-feet of surface water annually? Yes No
- Will the project impound surface water on a perennial stream? Yes No
- Will the project divert water from a stream that supports sensitive, threatened or endangered species? Yes No

If you answered "Yes" to any of these questions, by signature on this application, you are committing to include the following required elements in your feasibility study.

Describe how you intend to address the required elements in your feasibility study:

- a) Analyses of by-pass, optimum peak, flushing and other ecological flows of the affected stream and the impact of the storage project on those flows.
Does not Apply!
- b) Comparative analyses of alternative means of supplying water, including but not limited to the costs and benefits of water conservation and efficiency alternatives and the extent to which long-term water supply needs may be met using those alternatives.
Does not Apply!
- c) Analyses of environmental harm or impacts from the proposed storage project.
Does not Apply!
- d) Evaluation of the need for and feasibility of using stored water to augment instream flows to conserve, maintain and enhance aquatic life, fish life and any other ecological values.
Does not Apply!

Is the proposed storage project for municipal use?

- Yes No

If "Yes," then please describe how you intend to address the following required element in your feasibility study:

- e) For a proposed storage project that is for municipal use, analysis of local and regional water demand and the proposed storage project's relationship to existing and planned water supply projects.
Does not Apply!

Proceed in addressing the following items:

1. Underground storage projects that are identified by the Department in a statewide water assessment and inventory receive a preference in the scoring process. Contact the Department's Grant Specialist to include your project on the inventory.

Does not Apply!

2. Provide a review of: (a) Local, state and/or federal permitting requirements and issues posed by the **implementation** of the project associated with the feasibility study and (b) property ownership status within the project implementation area.

Does not Apply!

V. Match Funding Information

Applicants must demonstrate a minimum dollar-for-dollar match based on the total funding request. The match may include a) secured funding commitment from other sources, b) pending funding commitment from other sources, and/or c) the value of in-kind labor, equipment rental, and materials essential to the feasibility study. For secured funding, you must attach a letter of support from the match funding source that specifically mentions the dollar amount shown in the “Amount/Dollar Value” column. For pending resources, documentation showing a request for the matching funds must accompany the application.

| In the “type” column below matching funds may include: | In the “status” column below matching funds may have the following status: |
|--|--|
| <ul style="list-style-type: none"> • Cash - Cash is direct expenditures made in support of the feasibility study by the applicant or partner*. | <ul style="list-style-type: none"> • Secured - Secured funding commitments from other sources. |
| <ul style="list-style-type: none"> • In-Kind - The value of in-kind labor, equipment rental and materials essential to the feasibility study provided by the applicant or partner. | <ul style="list-style-type: none"> • Pending - Pending commitments of funding from other sources. In such instances, Department funding will not be released prior to securing a commitment of the funds from other sources. Pending commitments of the funding must be secured within 12 months from the date of the award. |

*”Partner” means a non-governmental or governmental person or entity that has committed funding, expertise, materials, labor, or other assistance to a proposed project planning study. OAR 690-600-0010.

| Match Funding Source (if in-kind, briefly describe the nature of the contribution) | Type (✓ One) | Status (✓ One) | Amount/ Dollar Value | Date Match Funds Available (Month/Year) |
|---|--|---|----------------------|--|
| <i>City Staff - Public Works, City Recorder, City Clerk, Mayor</i> | <input type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind | <input checked="" type="checkbox"/> secured <input type="checkbox"/> pending | \$8,058 | <i>February 16</i> |
| <i>City Utility Funds</i> | <input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind | <input checked="" type="checkbox"/> secured <input type="checkbox"/> pending | \$2,800 | <i>February 1, 2016</i> |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |
| | <input type="checkbox"/> cash <input type="checkbox"/> in-kind | <input type="checkbox"/> secured <input type="checkbox"/> pending | | |

VI. Feasibility Study Schedule

Estimated Study Duration: March 1, 2016 to November 30, 2016

Place an “X” in the appropriate column to indicate when each Key Task of the project will take place.

| Feasibility Study Key Tasks | 2016 | | | 2017 | | | | 2018 & Beyond |
|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------------|---------------------|
| | 2 nd Qtr | 3 rd Qtr | 4 th Qtr | 1 st Qtr | 2 nd Qtr | 3 rd Qtr | 4 th Qtr | |
| <i>Host a meeting of all State and local agencies identified in this proposal.</i> | | X | | | X | | | |
| <i>Meet with agencies not able to attend the meeting</i> | | X | | | X | | | |
| <i>Compile information and apply for required permits</i> | | | X | X | X | | | |
| <i>Explore possible impacts to the environment with appropriate agency representatives</i> | | X | X | | | | | |
| <i>Address concerns of all agencies and consider possible mitigation approaches</i> | | X | | | X | | | |
| <i>Meet with contractors to procure estimates for proposed work</i> | | X | | X | | | | |
| <i>Compile information and produce a Feasibility Study Report covering all items listed in this grant document</i> | | X | X | X | X | X | X | |
| <i>Submit FSR to City Council for approval</i> | | | X | | | | | |
| <i>Submit requests for grant funds</i> | | X | X | X | X | X | X | |
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- **Please Note:** Successful grantees must include all invoices and identify which key tasks are associated with each invoice when requesting financial reimbursement.

VII. Feasibility Study Budget

Section A

Please provide an estimated line item budget for the proposed feasibility study. Examples would include: labor, materials, equipment, contractual services and administrative costs.

| Line Items | Number of Units* <i>(e.g. # of Hours)</i> | Unit Cost <i>(e.g. hourly rate)</i> | In-Kind Match | Cash Match Funds | OWRD Grant Funds | Total Cost |
|---------------------------------|--|--|---------------|------------------|------------------|-------------|
| Staff Salary/Benefits | <i>see attached</i> | | | | | |
| Contractual/Consulting | | | | | | |
| Equipment (must be approved) | | | | | | |
| Supplies | | | | | | |
| <i>Other:</i> | | | | | | |
| | | | | | | |
| | | | | | | |
| Administrative Costs** | | | | | | |
| Total for Section A | | | | | | |
| Percentage for Section A | | | | | | 100% |

* Note: The "Unit" should be per "hour" or "day" – not per "project" or "contract." $Units \times Unit\ Costs = Total\ Cost$

** Administrative Costs may not exceed 10 percent of the total funding requested from the Department

Section B

If grant amount requested is \$50,000 or greater, you **MUST** complete Section B. Key Tasks in Section B should be the same as the Key Tasks in Section VI (Feasibility Study Schedule).

| Feasibility Study Key Tasks | In-Kind Match | Cash Match Funds | OWRD Grant Funds | Total Cost |
|-----------------------------|---------------|------------------|------------------|------------|
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| Total for Section B | | | | |

Totals in Section B must match the totals in Section A

11. Draft Implementation Plan

| Activity | Funding Source(s) |
|---|---|
| 1 Survey City property for location of enhanced pond | Water Supply Development Grant |
| 2 Clean and enhance existing pond per engineer drawing | City In-kind and Water Supply Development Grant |
| 3 Excavate irrigation ditch from pond to creek | City In-kind and Water Supply Development Grant |
| 4 Excavate irrigation ditch from pond to City water intake | City In-kind and Water Supply Development Grant |
| 5 Install flow gate at SW corner of pond to augment stream | City In-kind and Water Supply Development Grant |
| 6 Relocate current fence and irrigation fields to accommodate enhanced pond | City In-kind and Water Supply Development Grant |

VII. Feasibility Study Budget
Section A

| Line Items | Units | Unit Cost | In-kind Match | Cash Match Funds | OWRD Grant Funds | Total Cost |
|-------------------------|-------|-----------|---------------|------------------|------------------|--------------|
| Staff Salary/Benefits | | | | | | |
| PW Director | 80 | \$ 34.74 | \$ 2,779.20 | | | |
| Utility Workers | 40 | \$ 21.53 | \$ 861.20 | | | |
| City Recorder | 34 | \$ 33.03 | \$ 1,123.02 | | | |
| Mayor | 40 | \$ 27.00 | \$ 1,080.00 | | | |
| Contractural/Consulting | 8.8 | \$ 250.00 | \$ 2,200.00 | \$ 2,800.00 | \$ 3,358.00 | \$ 8,358.00 |
| Application Fees | | | | | \$ 7,000.00 | \$ 7,000.00 |
| Supplies | | | \$ 14.58 | | \$ 500.00 | \$ 500.00 |
| Total Sec A | | | \$ 8,058.00 | \$ 2,800.00 | \$ 10,858.00 | \$ 21,716.00 |
| % Sec A | | | 37% | 13% | 50% | 100% |

**Attachment: City of Oakland Pond Feasibility Study
Ownership Property Details for Property ID: R20144**

Owner Information:

Owner Name: CITY OF OAKLAND
Owner Address #1: 637 NE LOCUST ST
Owner Address #2:
Owner Address # 3: Alternate Account #: 5724.14
Owner City/State/Zip: OAKLAND, OR 97462 Account Status: A

Property Information:

Township: 25 Situs Address:
840 GREEN VALLEY RD
OAKLAND, OR 97462
Range: 05W Map ID: 25050800901
Section: 08 County Property Class: 940
Quarter: Legal Acreage: 40.12
Sixteenth: Code Area: 00100
Maintenance Area: 2 Neighborhood Code: SH
Year Built: Living Area:
Bedrooms: Baths:
Exemption Code: CITY Exemption Desc.: 307.090 EXEMPT OWNER-CITY
MFD Home ID:

Value Information: 2014-2015 Certified Values and Tax Information

Improvement Appr. Value: \$0.00 Total Appr. Value: \$319,312.00
Land Appr. Value: \$319,312.00 Exemption Value: \$319,312.00
Land Market Value: \$319,312.00 Total Assessed Value: \$0.00
Total Real Market Value: \$319,312.00 Taxes Imposed: \$35.04

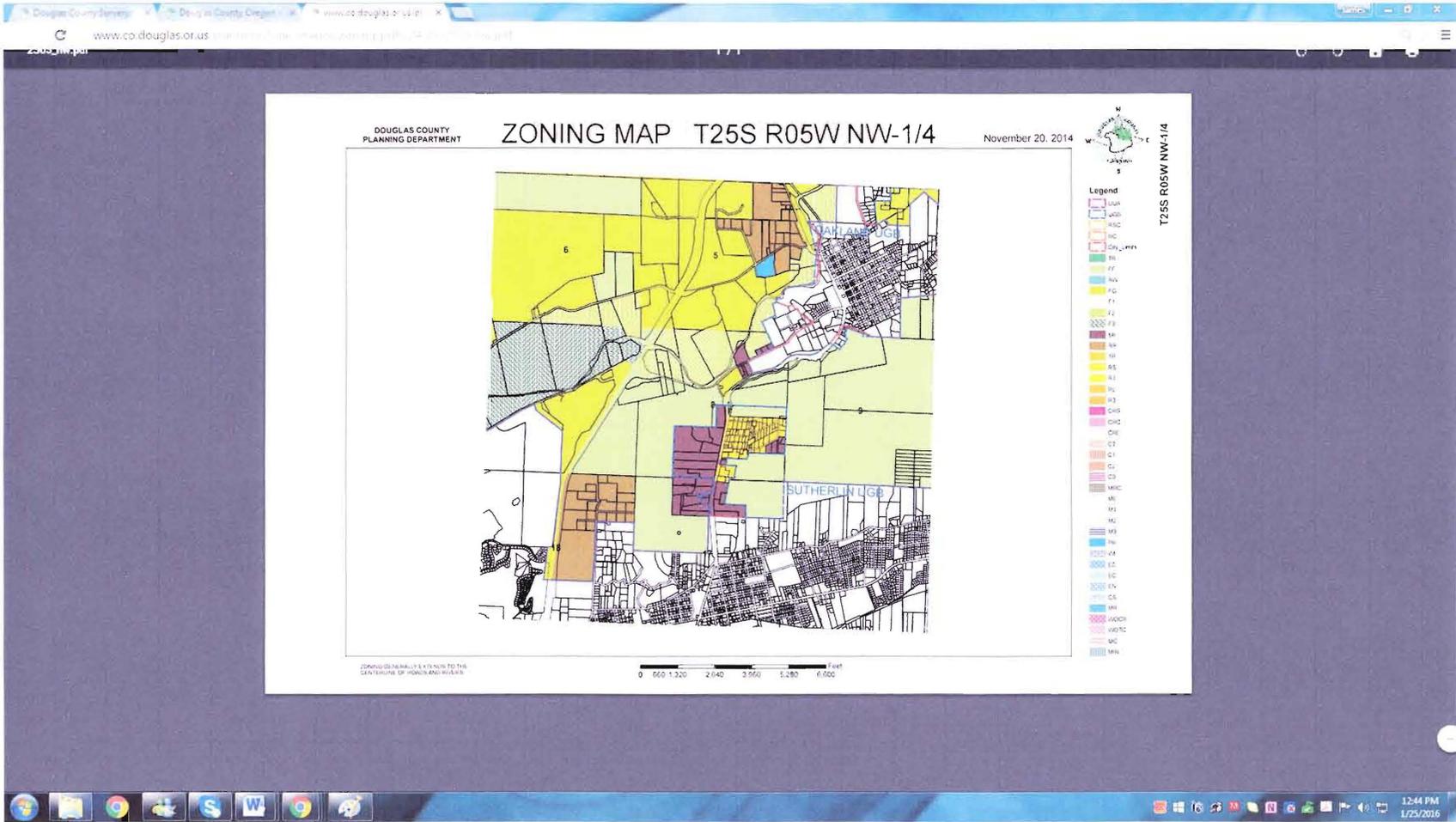
Sales Information:

Deed No: 2000-21037
Sale Price: \$140,000.00 Sale Date: 10/16/2000

Attachment: City of Oakland Pond Location Map



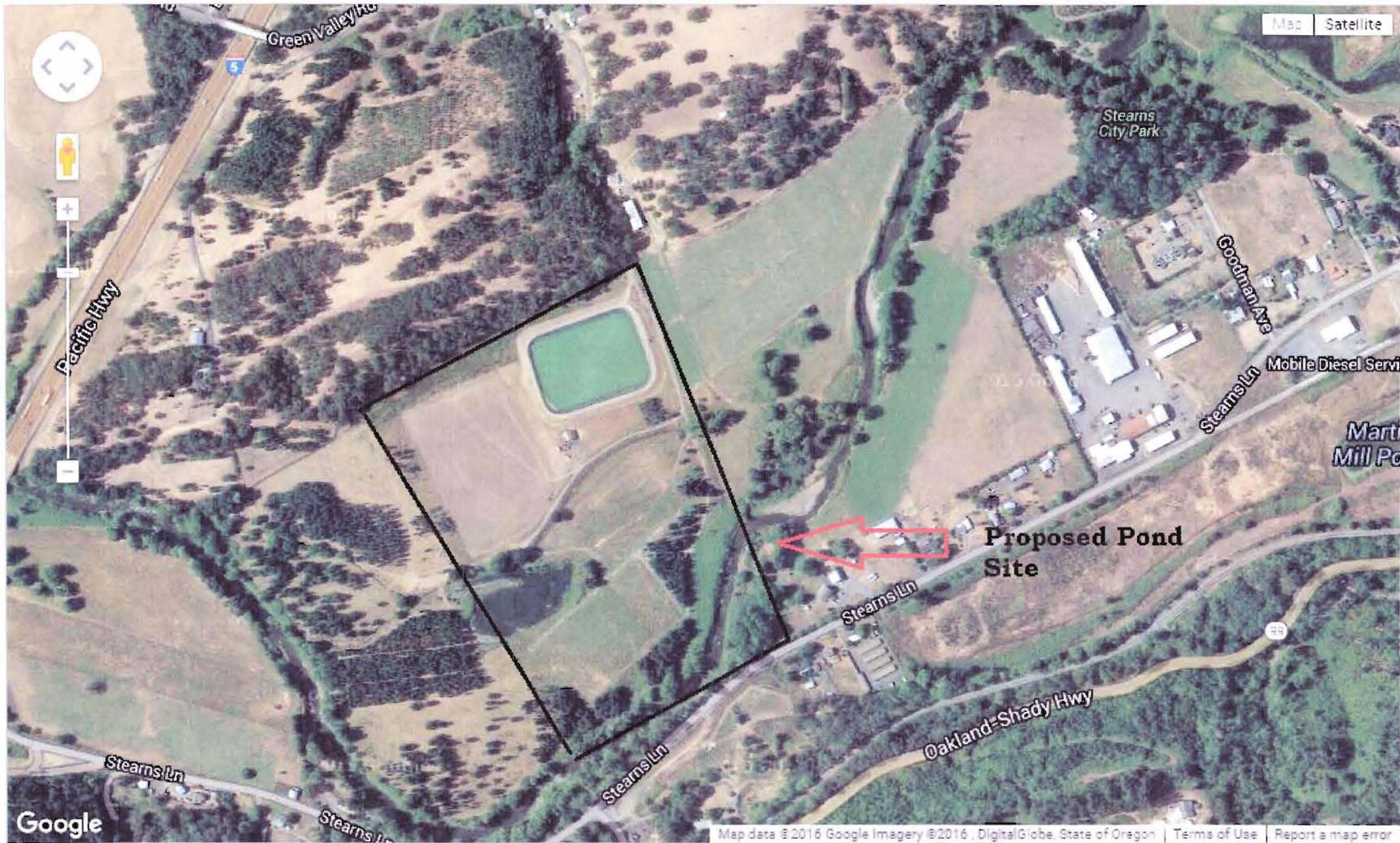
Attachment: City of Oakland Pond Zoning Map Information



Attachment: City of Oakland Pond Photo Google Earth

840 GREEN VALLEY RD OAKLAND, OR 97462

Search



Attachment: City of Oakland, pond located inside a Waterway

840 GREEN VALLEY RD OAKLAND, OR 97462

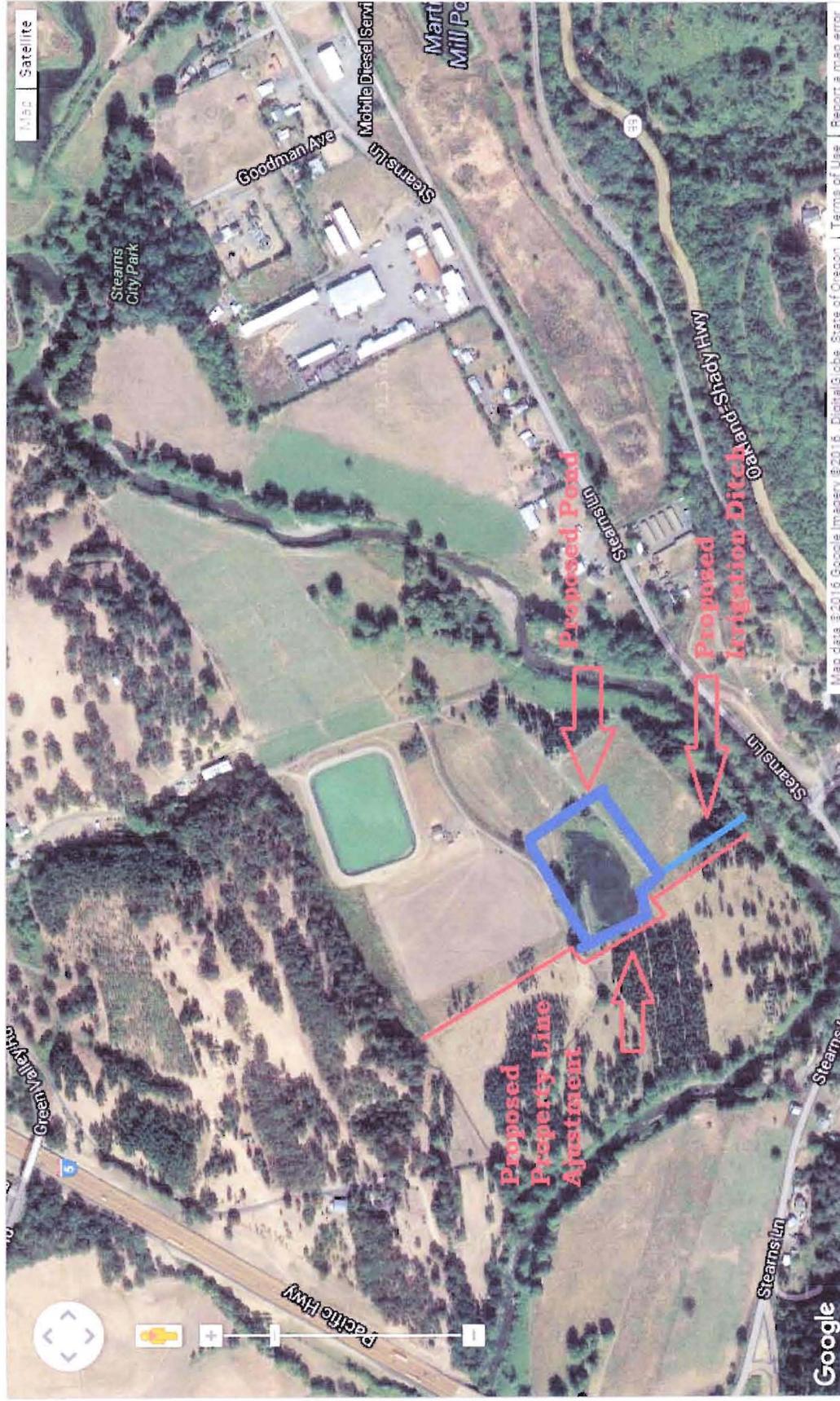
Search



Attachment: City of Oakland Pond Enhancement Features

840 GREEN VALLEY RD OAKLAND, OR 97462

Search



Attachment: City of Oakland Stream Flow Data

Station ID: 14320700 View: [Map](#) - [Driving Directions](#) - [Station Info](#) - [Historical Stats](#) - [Rating Curve](#)

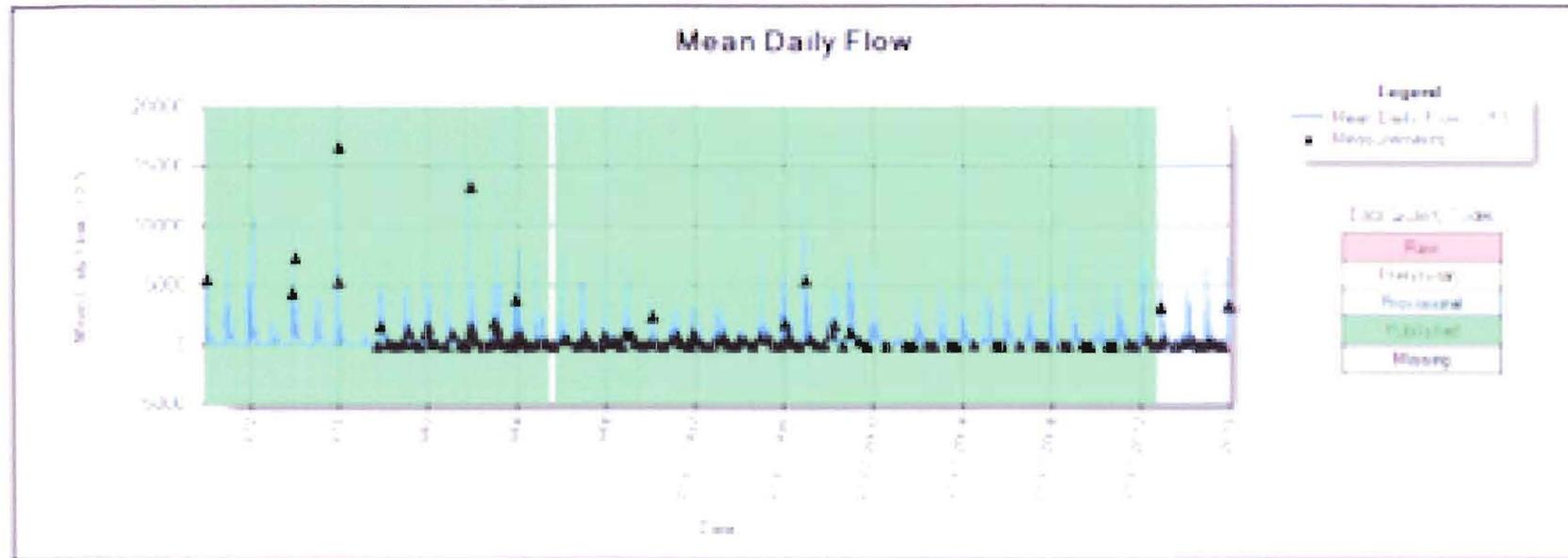
Name: CALAPOOYA CR NR OAKLAND, OR

Operator: OWRD Status: Near Real Time Drainage Area: 210 sqmi

Latitude: 43° 24' 6.07" Longitude: -123° 21' 46.192" Datum: NAD83

Period of Operation: 10/1/1955 ~ Present

Most Recent Values: Mean Daily Flow: 2120 cfs @ 01/24/2016
Instantaneous Flow: 1900 cfs @ 01/25/2016 11:15
Instantaneous Stage: 5.75 ft @ 01/25/2016 11:15



Attachment: City of Oakland Stream Flow Data

USGS STREAM FLOW PUBLISHED DATA CALAPOOYA CREEK (Condensed Data from USGS data download)

| YEAR | Aug - Sept Stream Flow (CFS) Low | Nov - March Stream Flow (CFS) High |
|------|----------------------------------|------------------------------------|
| 1970 | 2 | 6960 |
| 1973 | 0.4 | 4350 |
| 1974 | 0.2 | 3970 |
| 1977 | 0.1 | 2100 |
| 1987 | 0.55 | 5160 |
| 1988 | 0.05 | 3780 |
| 1992 | 0.09 | 1640 |
| 1994 | 0 | 1310 |
| 2002 | 0.72 | 4530 |
| 2003 | 0.54 | 2920 |
| 2010 | 2.9 | 3300 |
| 2011 | 7.3 | 4590 |
| 2012 | 6.3 | 5480 |
| 2013 | 6.2 | 2020 |
| 2014 | 5.3 | 6643 |
| 2015 | 0.33 | 3860 |



Oakland Rural Fire District

P.O. Box 385
Oakland, Oregon 97462
(541) 459-5427

January 29, 2016

Oregon Water Resource Department
Mr. Jon Unger, Water Supply Development Coordinator
Water Resources Grant Administrator

Re: Water Conservation, Reuse and Storage Feasibility Study Grant Program

Dear Mr. Unger,

As the Chief of the Oakland Rural Fire District, I would like to express strong support for the City's application for a Feasibility Study Grant. I believe this study, and the subsequent project, would address principal concerns of the community and the Fire District each year during the summer.

Oakland is a city of historic buildings surrounded by forest land which becomes increasingly susceptible to wild fires in the dry summer months. The proposed enhancement to the City's storage pond would provide a year around stable municipal water source and added protection from possible fire incidents.

Once again, I whole heartedly support the City's application for a Feasibility Study Grant.

Very truly yours,

William Stearns, Chief
Oakland Rural Fire District



OAKLAND PUBLIC SCHOOLS

DISTRICT OFFICE

PO Box 390
Oakland, OR 97462
Phone (541) 459-4341
Fax (541) 459-4120

SUPERINTENDENT

Nanette Hagen

DEPUTY CLERK

Amber Goodin

**SUPERINTENDENT/
BOARD SECRETARY**

Allynne Gurule

BOARD OF DIRECTORS

Marc Nichols
Jake Gibbs
Darian Baimbridge
Dan Hartman
Lisa Powell

OAKLAND HIGH SCHOOL

Jeff Clark, Principal
(541) 459-2597 ext 3
PO Box 479
Oakland, OR 97462

LINCOLN SCHOOL

Diana Sweeden, Principal
(541) 459-3407 ext 4
PO Box 420
Oakland, OR 97462

OAKLAND ELEMENTARY

Nanette Hagen, Principal
(541) 459-2271 ext 5
PO Box 90
Oakland, OR 97462

February 1, 2016

Oregon Water Resource Department
Mr. Jon Unger, Water Supply Development Coordinator
Water Resources Grant Administrator

Re: Water Conservation, Reuse and Storage Feasibility Grant Program

Dear Mr. Unger,

As the Superintendent of the Oakland School District, I would like to express my upmost support for the City's application for a Feasibility Study Grant. It is incredibly important that our small community get the invaluable information that this study could provide to us prior to moving ahead with the subsequent project to mitigate issues we have each year during the summer.

As you likely already know, we are highly susceptible to wild fire in summer months and any loss to our community at large specifically our schools would be devastating. The proposed enhancement of our City's storage pond would give us a stable water source and added protection from possible fire incidents in the future.

Thank you for considering the City of Oakland for a Feasibility Study Grant.

Respectfully Submitted,

Nanette Hagen



OAKLAND ECONOMIC DEVELOPMENT
P.O. Box 231
Oakland, Oregon 97462
Tax ID#51-0494043

January 29, 2016

Oregon Water Resource Department
Mr. Jon Unger, Water Supply Development Coordinator
Water Resources Grant Administrator

Re: Water Conservation, Reuse and Storage Feasibility Study Grant Program

Dear Mr. Unger,

As a representative of the business community in the City of Oakland, I would like to express strong support for the City's application for a Feasibility Study Grant. The Feasibility Study would determine the benefits and impacts of enhancing an existing pond on City property with the intent to augment Calapooia Creek flows during the dry summer months. We believe this study, and the subsequent project, would address primary concerns of the community and businesses each year during the summer.

Oakland is a city surrounded by beautiful forest land which grows increasingly susceptible to wild fires in the dry summer months. The proposed enhancement to our storage pond, to collect abundant raw water in the winter to be used to augment Calapooia Creek in the summer, would provide a year around stable municipal water source and added protection from possible fire incidents.

Thank you for considering the City of Oakland for a Feasibility Study Grant.

Very truly yours,

A handwritten signature in blue ink that reads "Kristofer D Tripp".

Kristofer Tripp, President
Oakland Economic Development

Oakland Community Response Team



"Great oaks from small acorns grow"

January 29, 2016

Oregon Water Resource Department
Mr. Jon Unger, Water Supply Development Coordinator
Water Resources Grant Administrator

Re: Water Conservation, Reuse and Storage Feasibility Study Grant Program

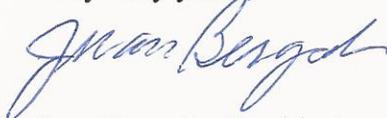
Dear Mr. Unger,

As a representative of the Oakland Community Response Team, I would like to express strong support for the City's application for a Feasibility Study Grant. The Feasibility Study would determine the benefits and impacts of enhancing an existing pond on City property with the intent to augment Calapooia Creek flows during the dry summer months. We believe this study will lead to a subsequent project which would address primary concerns of many community members each year during the summer.

Our city is located within forest land which, although it is beautiful year around, grows increasingly subject to wild fires in the dry summer months. We believe the proposed enhancement to Oakland's storage pond, for collection of abundant raw water in the winter to be used to augment Calapooia Creek in the summer, would provide a year around protection from wild fires as well as a stable municipal water source.

Thank you for considering the City of Oakland for a Feasibility Study Grant.

Very truly yours,



Juan Bergado, President
Oakland Community Response Team
"Working to Enhance the Livability of Our Community"
Nonprofit Number 93-1220605