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Feasibility Study Grants Funding Recommendations

Kim Fritz-Ogren, Manager, Water Resources Development Program

Becky Williams, Grant Program Coordinator

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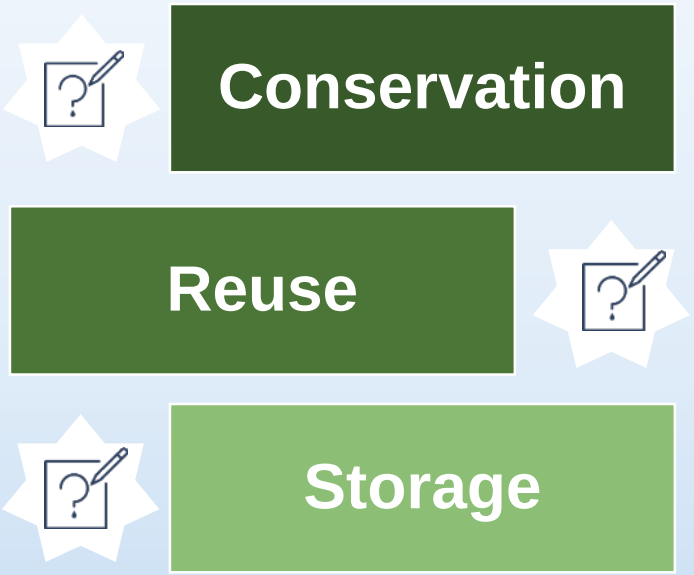
Funding Purpose

Purpose: Provide funding to evaluate feasibility of a water conservation, reuse, or storage project

Deadline: Fall each year (November 13, 2019)

Funding Decision: Spring each year (June 2020)



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Purpose of Feasibility Studies

- Investigate to reach the feasibility study goal
- Determine if a project is worth pursuing
- Prepare for implementation

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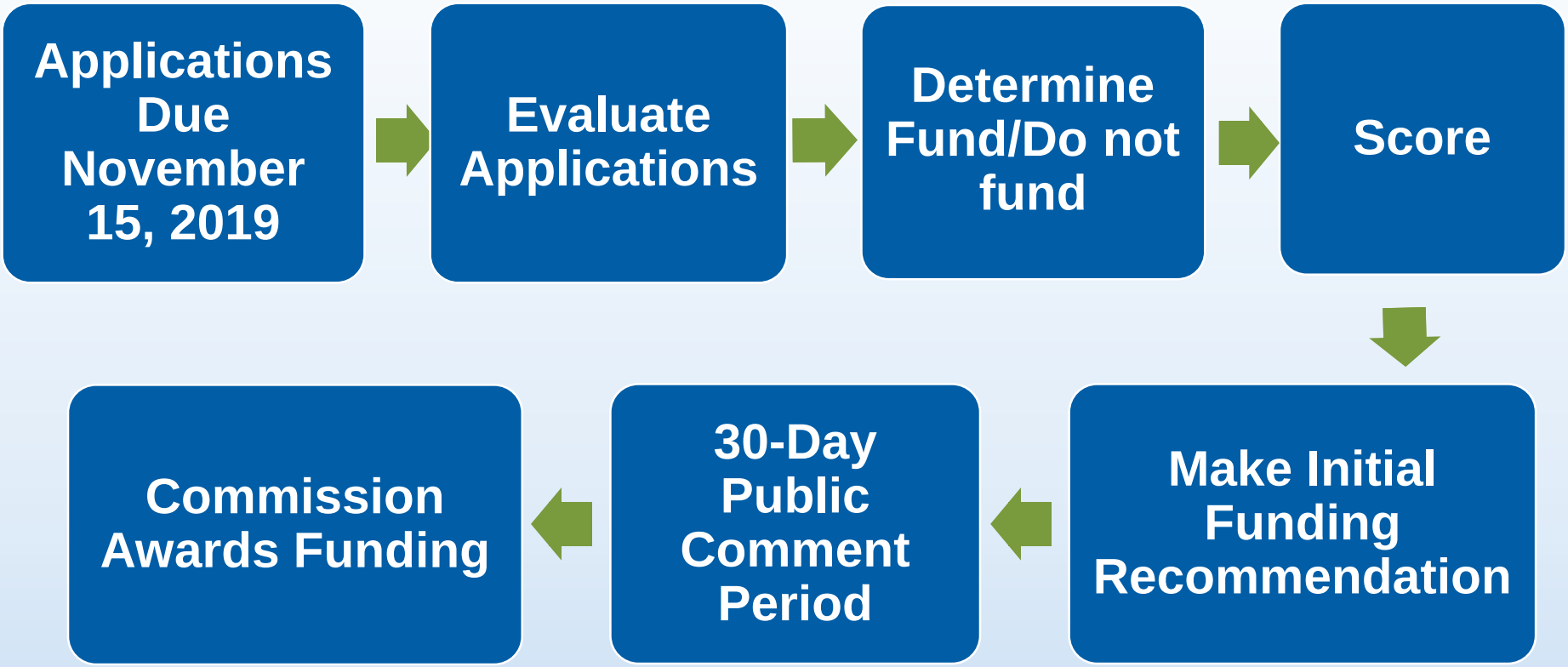
Application Review Process



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Application Evaluation

ART makes a fund/do not fund vote, considering:

- Is the proposal a feasibility study?
- Is the proposal ready for funding?
  - Missing elements
  - Insufficient details
- Is water available? (or, will this question be evaluated in the study?)

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Application Evaluation

- Projects that receive a “fund” vote are scored on:
  - Study goal
  - Water need
  - Community benefit
  - Technical planning and preparedness
- Projects are ranked by score and recommended for funding based on fund availability

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2019-20 Funding Cycle

- Approximately $2 million available in funding
- Nine applications received
- Requesting $1,455,069 in funding
- 4 conservation studies
- 4 below-ground studies
- 1 above-ground study

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Applications Received

Study Name	Project Type	Funding Requested
City of Umatilla Feasibility Study for Hydraulically Connected Wells	Conservation	$370,000
Drewsey Reclamation Ditch: Can we pipe it?	Conservation	$ 24,750
Falcon Cove Beach Water District ASR Study	Below-ground Storage	$10,000
Gordon Creek Aquifer Storage and Recovery Feasibility Study	Below-ground Storage	$284,300
Harney Basin Groundwater Market Feasibility Study	Conservation	$41,168
Pine Creek Reservoir Feasibility Study	Above-ground Storage	$105,976
Stayton Aquifer Storage and Recovery Feasibility Study	Below-ground Storage	$154,000
Upper John Day Aquifer Management Feasibility Study	Below-ground Storage	$385,875
Westland Irrigation District Water Conservation Study	Conservation	$79,000
		$1,455,069

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Recommended for Funding

Study Name	Funding Recommendation
City of Umatilla Feasibility Study for Hydraulically Connected Wells	$370,000
Drewsey Reclamation Ditch: Can we pipe it?	$ 24,750
Gordon Creek Aquifer Storage and Recovery Feasibility Study	$ 284,300
Harney Basin Groundwater Market Feasibility Study	$41,168
Pine Creek Reservoir Feasibility Study	$105,976
Stayton Aquifer Storage and Recovery Feasibility Study	$154,000
Westland Irrigation District Water Conservation Study	$79,000
TOTAL	**1,429,194**

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Not Recommended for Funding

Study Name	Funding Requested
Falcon Cove Beach Water District ASR Study	$10,000
Upper John Day Aquifer Management Feasibility Study	$385,875
TOTAL	**$395,875**

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Upper John Day Aquifer Management Feasibility Study

Study goal

- Assess and qualify the groundwater aquifer characteristics of a select area, encompassing 258 square miles to support active infiltration of surface water at times of surplus

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Upper John Day Aquifer Management Feasibility Study

Review Team comments

- Study proposes an innovative approach and appropriate method
- Some concern that it was not clear how the information collected would be used in examining the feasibility of potential projects
- Application could be improved by more clearly describing the work needed to connect the study results to future projects

Falcon Cove Beach Water District ASR Study

Study goal

- Identify a location where a confined aquifer would be likely
- Determine if this aquifer could be used for aquifer storage and recovery

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Falcon Cove Beach Water District ASR Study

Review Team comments

- Study tasks do not contain a sufficient amount of technical preparedness and detail to demonstrate that the stated goal could be achieved by the proposed study
- Size of the study scope appears insufficient to achieve the desired outcomes
- Application would benefit from additional details, steps and explanation

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Public Comments

- Department hosted 30-day public comment period March 30 – April 29, 2020
- Ten comments were received on the Falcon Cove Beach Water District ASR Study
  - Four comments in support of funding
  - Six comments in opposition to funding
- A review of the public comments did not find any new information warranting a change to the funding recommendation

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Alternatives

1. Adopt the staff funding recommendations contained in Table 1, Section IV of this report.
2. Adopt modified funding recommendations.
3. Direct the Department to further evaluate the applications and return with a revised funding proposal.

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Recommendation

1. **Adopt the staff funding recommendations contained in Table 1, Section IV of this report.**
2. Adopt modified funding recommendations.
3. Direct the Department to further evaluate the applications and return with a revised funding proposal.

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Thank you.
Questions?

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Extra Slides – to use if needed

City of Umatilla Hydraulically Connected Wells

Study Type	Conservation
Applicant	**City of Umatilla**
Funding request	$370,000
Total cost	$777,800
County	Umatilla
Highlights	

- Investigate potential for using well hydraulically connected to surface water to conserve water
- Drilling and testing needed
- Assess potential for lower water demand

Drewsey Reclamation Ditch: Can We Pipe It?

Study Type	Conservation
Applicant	Malheur Watershed Council
Funding request	$24,750
Total cost	$57,060
County	Harney
Highlights	

- Investigate piping the Drewsey Reclamation Ditch
  - Complete a survey to assess an alternate route
  - Conduct a water-loss analysis
  - Investigate water rights
  - Develop alternatives, cost estimates, and a 60% design from the selected alternatives

Falcon Cove Beach Water District ASR Study

Study Type	Storage: Below-Ground
Applicant	Falcon Cove Beach Water District
Funding request	$10,000
Total cost	$20,000
County	Clatsop
Highlights	

- Investigate potential to store water from the North Spring via ASR during October-June for use in July-September
- Examine existing Geologic and Hydrologic data
- Determine all necessary permits, permissions, and applications for ASR facility
- Develop cost estimate for solution

Gordon Creek Aquifer Storage and Recovery Feasibility Study

Study Type	Storage Below-Ground
Applicant	Corbett Water District
Funding request	$284,300
Total cost	$586,4400
County	Multnomah
Highlights	

- Assess the feasibility of storing water from Gordon Creek
- Design and construct an exploratory test well to evaluate the aquifer and the geochemical compatibility between the surface water and the groundwater
- Conduct storage-specific study requirements

Harney Basin Groundwater Market Feasibility Study

Study Type	Conservation
Applicant	The Nature Conservancy
Funding request	$41,168
Total cost	$87,112
County	Harney
Highlights	

- Investigate a market-based strategy that would reduce overall water use and provide year-to-year flexibility
- Develop concept and analyze legal opportunities and constraints
- Identify annual share reductions schedules, evaluate tools and considerations, and determine potential market effects

Pine Creek Reservoir Feasibility Study

Study Type	Storage: Above-Ground
Applicant	Walla Walla Basin Watershed Council
Funding request	$105,976
Total cost	$304,826
County	Umatilla
Highlights	

- Evaluate the feasibility of the reservoir site
- Complete geotechnical investigations and seismic analysis
- Further analyze Walla Walla River water availability,
- Conduct analyses necessary to complete the storage-specific study requirements

Stayton Aquifer Storage and Recovery Feasibility Study

Study Type	Storage: Below-Ground
Applicant	City of Stayton
Funding request	$154,000
Total cost	$308,000
County	Marion
Highlights	

- Evaluate the feasibility of ASR as a redundant drinking water source to meet seasonal peak City demands
- Assess Columbia River Basalt Group aquifer characteristics
- Provide a regulatory review
- Identify candidate sites
- Conduct hydraulic testing via an exploratory borehole
- Develop preliminary system design

Upper John Day Aquifer Management Feasibility Study

Study Type	Storage: Below-Ground
Applicant	Grant Soil and Water Conservation District
Funding request	$385,875
Total cost	$777,877
County	Grant
Highlights	

- Assess the aquifer characteristics of the Upper Mainstem John Day River Basin
- Apply an Airborne Electromagnetic Method (AEM) survey to create a 3D hydrogeologic framework
- Forecast aquifer characteristics, groundwater flow paths, potential recharge areas, and calculate water storage capacity

Westland Irrigation District Water Conservation Study

Study Type	Conservation
Applicant	Farmers Conservation Alliance
Funding request	$79,000
Total cost	$204,000
County	Umatilla and Morrow
Highlights	

- Identify and evaluate opportunities to modernize the District's infrastructure
- Produce a comprehensive System Improvement Plan with associated high-level engineering designs, cost estimates, projected water savings, and projected hydroelectric power generation and energy conservation potentials