



WATER SUPPLY DEVELOPMENT ACCOUNT LOAN AND GRANT APPLICATION

APPLICATION INSTRUCTIONS

1. A pre-application conference with Oregon Water Resources Department (OWRD) staff is strongly recommended. To schedule a pre-application conference or if you have any questions about the application form, please contact Jon Unger, Water Resources Grant Administrator at (503) 986-0869.
2. Review the Water Supply Development Account Application Guidance and Guidance on the Evaluation of Public Benefits documents prior to completing application.
3. Complete Sections I through VII of the application form in the spaces provided.
4. If you include attachments as part of your response, please identify the attachment number and title in the appropriate response section.
5. Applications may be submitted electronically or in hard copy. If in hard copy - use 8 ½” x 11” unstapled, numbered pages. Provide any attachments to application also on 8 ½” x 11” unstapled pages.
6. Applications will be accepted year-round; however, applications must be received before the submission deadline to be considered for the corresponding award cycle. Submission deadlines will be published on the following webpage:
http://www.oregon.gov/owrd/Pages/Water_Supply_Development_Account.aspx
7. Please send completed applications electronically to Jon.J.Unger@wrд.state.or.us, or if in hard copy to the following address:

OREGON WATER RESOURCES DEPARTMENT
Attention: Jon Unger, Water Resources Grant Administrator
725 Summer Street NE, Suite A
Salem, OR 97301

Please note: The information you provide on this application may be subject to Oregon Public Records Law.



**OREGON WATER RESOURCES DEPARTMENT
WATER SUPPLY DEVELOPMENT ACCOUNT
LOAN AND GRANT APPLICATION**

I. Project Information

Project Name: Port of Morrow Regional Water Recycling and Re-Use Projectt

Type of Project: Water Distribution and Storage Check box if project type includes storage

Funding Request Type: Loan Grant

Funding Amount Requested: \$ \$10,094,421.80 Total cost of project: \$ \$35,030,968.20

Note: Grant funding requests must demonstrate cost match of at least 25% of total project cost. This may include in-kind.

II. Applicant Information

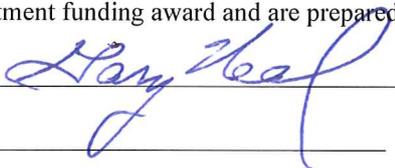
Principal Contact: Lisa Mittelsdorf	Fiscal Officer: Eileen Hendricks
Address: <u>P. O. Box 200</u>	Address: <u>P. O. Box 200</u>
<u>Boardman, OR 97818</u>	<u>Boardman, OR 97818</u>
Phone: <u>541-481-7678</u> Fax: <u>541-481-2679</u>	Phone: <u>541-481-7678</u> Fax: <u>541-481-2679</u>
Email: <u>lisam@portofmorrow.com</u>	Email: <u>eileenh@portofmorrow.com</u>

Involved Landowner 1: Madison Ranches, Inc.	Involved Landowner 2:
Address: <u>29299 Madison Road</u>	Address:
<u>Echo, OR 97836</u>	
Phone: <u>541-376-8107</u> Fax: <u>541-376-8618</u>	Phone: Fax:
Email: <u>Jake@MadisonRanches.com</u>	Email:

**Please include a supplementary document that lists all additional involved landowners if applicable.*

Certification:

I certify that this application is a true and accurate representation of the proposed project work and that I am authorized to sign as the Applicant or Co-Applicant. By the following signature, the Applicant certifies that they are aware of the requirements of an Oregon Water Resources Department funding award and are prepared to implement the project if awarded.

Applicant Signature:  Date: 1/19/16
 Print Name: Gary Neal Title/Organization: General Manager, Port of Morrow

III. Project Summary

Please provide a description of the need, purpose and nature of the project. Include what the applicant intends to complete and how the applicant intends to proceed.

Within the last 5 years the Port of Morrow has grown into the second largest Port in the state of Oregon. It is centrally located amongst some of the best vegetable production ground in the world, and one of the largest rivers in the United States which provides cheap hydroelectric power along with consistent irrigation water. The POM has been very successful in capitalizing on both of these resources. Multiple data centers, power plants, potato and onion processing and packing facilities, cheese factories, cold storages, grain elevators, recycling, renewable energy, R&D facilities and

barge container docks have chosen to locate within and around the Port. The Port is in the middle of a steep growth curve, and has several projects ready to go, but there is a major problem.

Most of these industries need water for their operation (washing, potatoes, cooling data centers, etc.), and they generate a stream of effluent water that has to be beneficially land applied in accordance to a regulated and monitored DEQ permit. As the Port has grown, Ag land has been replaced with industries that produce more reuse water. The port has reached a scale that it is now producing more reuse water than its current land application system can handle.

About 12 miles south east of the port several farms have been wondering how they would ever recover from having their deep basalt wells curtailed or shut off. Some of these farms have a small amount of Columbia River water on them, but they are all still very short of their full potential. While farms closer to the river, that have more water, enjoy the flexibility to grow high valued vegetable crops, these farms are stuck growing wheat, and a few other lower valued crops that don't have any real impact on the local economy because they are not value-added.

Both of these two groups have a problem, and, they are both the solution to each other's problems. The port needs a larger land base, and not just any land base will do. It needs to be far away from any communities that might complain about odor, include some serious depth to or confining characteristics to any native groundwater, and land owners that are willing to manage a reuse friendly crop rotation. The farmers need water, and are familiar with the concept of beneficially applying reuse water. These two groups are very excited about working together on this project.

The group spent the better part of a year and half working on this project, which was accelerated when another project they were working on was forced to be placed on hold. One short coming they continued to come up was the lack of fresh water. Not all crops can be grown on 100% reuse water. There would need to be a fresh water component to this project as well. The group worked on several different plans involving two separate systems, one system for fresh and another for reuse. The cost was always prohibitive.

Finally the idea was hatched to use one large pipeline that would allow for a high rate of reuse water for part of a week, and a high rate of fresh water to be pumped the other part of the week. This cut the total miles of pipe needing to be installed in half, the number of pump stations in half, and added the pumping an electrical efficiency that a bigger pipe brings. To make this system really work well two basins were designed at the end of the pipe. One that would hold fresh water and one that would hold reuse water. This set up allows the farmers to manage the water much more efficiently by allowing them to choose what water goes on what fields when. It also allows the farms to budget the water in the basins so they can pull out at a constant rate all week from either basin while the pipe is running either kind of water.

That is where this grant application comes in. The Port of Morrow and Madison Ranches Inc. are applying for a \$10,000,000 grant. This grant will help to cover the freshwater side of the project. It will connect the 30" mainline to a pump station on the Columbia River, three or four alluvial wells located on port property, help to upsize the one large pipe from the port to the farm, and help to construct the freshwater basin at the farm end of the pipe. All the water rights are in place for this project, the only thing missing is a way to get the water to the farms. This is literally a shovel ready project. All the engineering is being finished up on the port side as well as the farm side.

We believe that we have come up with a project that, as you will see in the application, provide an exceptional bang for its buck in both the economic and environmental benefits for the port, region, and state. This project will give the Port of Morrow the ability to continue growing to double its current size while raising the value and cropping opportunities on over 12,600 acres, and putting 3,000 new acres into production. These acres will be able to support nearly 212 million pounds of new food crops being grown in the area. We fully expect this project to create over \$100 million in combined ag and industrial economic benefits in the first five years of operation, and expect nothing but continued growth thereafter. This project will make an impact that will be felt, as well as used as an example in the future for how industry and agriculture can support each other. This is a great ice breaker, and you won't regret fully funding it.

IV. Project Specifics

Instructions: Answer all questions in this section by typing the answer below the question, using additional space as needed.

- 1. Describe how the project will provide public benefits in each of the three public benefit categories.** Project applications will be scored and ranked based on the economic, environmental and social/cultural public benefits identified below. Describe the conditions prior to and after project implementation to demonstrate changes resulting from the project. Descriptions should be quantitative when possible. Information provided must be sufficient to allow evaluation of the public benefits of the project. **Please see the Public Benefit and Evaluation Guidance document for a description of how public benefits will be evaluated.** Applications that do not demonstrate public benefit in each of the three categories (economic, environmental, social/cultural) will be deemed incomplete. Leave blank any categories that are not applicable to project.

Economic Benefits ORS 541.673(2)

(a) Job creation or retention:

Total employment at the Port of Morrow is 6,850 jobs. This project will double the size of the current land application system, thus creating the ability for the Port to double the currently employment numbers. Port-related businesses create over \$266 million in labor income. From the on farm perspective this project will create a need for additional labor to manage additional acres, as well as to help grow more valuable, management intensive crops. The initial estimate based on current cost per acre of labor is that this project will require another \$1MM worth of annual on farm labor. These jobs will include a few basic laborers, but primarily will require skill positions such as equipment operators, service techs, growers, crop managers, and irrigation system managers.

During the construction and development phase of this project there will be between \$10M and \$11M in private funding being injected into the economy for the purchase and installation of new and updated center pivot irrigation systems to apply this water. This additional distribution infrastructure is directly dependent upon funding of the freshwater component of this project.

Once the ground is developed, the additional acres will easily require over \$2MM in new farm equipment to get the new acres leveled and into production as soon as possible. Most farms in the area buy local equipment to maintain good dealer support throughout the harvest season. While these numbers are not included as match, they are also directly dependent on the funding of the freshwater component of the project through this grant as the farmers that are involved already have equipment in their inventory to handle the crops that are normally grown with re-use water alone

(b) Increases in economic activity:

Adding 6,000 acres into the Port's land application system will have an impact on our economy. Port-related businesses currently create \$1.6 billion in economic output from the employment created here. This also creates \$48 million in state tax revenue and \$66 million in federal tax revenue. Increased job percentage and economic output increases over the previous 5 year were significant. We can anticipate steady growth for the next 5 years as well. From the farm perspective, this project will generate an additional \$445 per acre in crop nutrition, crop protection, seed, water, and monitoring. On 3,000 new acres that equates to over \$1.3MM in local services annually. The additional water on deficit irrigated ground will roughly add an additional 15% to these same sales. If we take that 15% over the 10,000 acres that will be better irrigated we get an additional \$667,500 worth of local sales and services that will be needed. That is nearly \$2MM in additional annual local sales. If you take into account that 1,200 of the new 3,000 acres will be organic, that \$2MM annual number, will double to \$4MM.

(c) Increases in efficiency or innovation:

This project is an exceptionally unique example of efficiency and innovation. By using one mainline to deliver reuse water into one basin three days a week and fresh water into another basin 4 days a week, the parties

involved have maximum flexibility to manage both sources of water as they need, where they need in the most environmentally responsible manner possible. This system is designed to be remotely ran with telemetry that controls a variable frequency driven pump at each station. Once that drive pump is at capacity it will switch over to an across the line pump. The across the line pump will maintain flow and the drive will back off until there is a call for more water. At that call, the drive pump will start picking up again in combination with the across the line pump. The ability to control pump stations like this make for an incredibly efficient, reliable pumping system. The latest in pump, drive, and monitoring technology are all being applied to this project. Never in the state of Oregon has a project like this been implemented in a scale this size. Being able to use one pipe at full capacity with a bulge in the system for both reuse and fresh water at the end saves the expense of needing two separate systems for fresh water and reuse. This project will move nearly the same amount of water as two smaller systems for substantially less initial capital investment. The energy efficiency of project will be realized over the next 30 years. The requested funding is a very critical component of the projects ability to realize these efficiencies.

(d) Enhancement of infrastructure, farmland, public resource lands, industrial lands, commercial lands or lands having other key uses:

In a 2015 appraisal, deficit irrigated farm ground was appraised at \$4,500 per acre. This is due to the fact that a very limited water supply leaves farmers with a few crops to grow. These crops are typically not considered high value crops, and they are usually exported and create very little local processing additional value added benefit. These crops include wheat, alfalfa, and a few other forage crops. Crops under deficit irrigation scenarios typically generate gross revenues of between \$500 and \$1,000/acre at the farm gate.

In a separate 2015 appraisal, fully irrigated farm ground was appraised for \$8,000 per acre. This is due to the fact that with full water these farmers have the ability to grow much higher value crops. These crops include Double crop organics (peas followed by sweet corn or green beans in the same year), onions, potatoes, carrots, blue berries, wine grapes and various seed crops. Crops that can be grown under full irrigation typically have a gross farm gate value of \$3,000 to as high as \$20,000 per acre.

All of these crops have a very significant impact on the local economy as the raw product is all processed and packed here locally then shipped globally. The attached table will give you an idea on about the economic impact of these crops from the farm to the consumer.

The total increase in farm land value resulting from this project could easily eclipse the \$54MM number. The 12,600 acres that will be better irrigated will go up in value by a conservative \$2,500 per acre (\$31.5MM) while the non-irrigated ground will increase in value by over \$7,500 per acre (\$22.5MM).

(e) Enhanced economic value associated with tourism or recreational or commercial fishing, with fisheries involving native fish of cultural significance to Indian tribes or with other economic values resulting from restoring or protecting water instream:

Almost all of the farmland that will be impacted by this project is either prime upland game bird habitat or Mule Deer habitat and critical winter range. Several of the farms in this area offer first time youth only hunting programs. The continued development of irrigation offers more feed and cover for deer herds, while providing more opportunities for the next generation of young responsible hunters. Many of these young hunters bring their entire families with them for this very special occasion. This annual migration results in new business for the area. Hotels, gas stations, locally owned meat processors, cafes, and sporting goods stores all see an economic impact from the hunting opportunities presented in the area. The Port of Morrow developed the Sage Center, an interactive learning center, for the purpose of promoting Agritourism and Energy education. There are over 22,000 visitors per year to the Sage Center.

(f) Increases in irrigated land for agriculture:

This project is expected to deliver over 7,500 acre feet of reuse water along with nearly 5,000 acre feet of fresh water from the Columbia River and alluvial wells. The combined 12,500 acre feet of water will have a significant impact on acres that are both already under production as well as new non-irrigated ground that will now be irrigated. Roughly 4,900 acres in the Ordinance Basalt critical ground water area will be better irrigated. 5,300 acres in the Echo Junction sub area will be better irrigated, and 2,400 acres in the Butter Creek critical Ground water area will be better irrigated. This brings about 12, 600 acres closer to being fully irrigated. The

project will support an additional 3000 acres of newly irrigated ground in the Ordinance Basalt, and the Echo Junction Sub areas 1,200 of which are organic ready.

The 4 Mile sub area of the Butter Creek CGWA will see its available water supply increase by over 200%. Its current allocation out of its deep wells has been curtailed by nearly 75% down to 1,300 acre feet. The additional water will result in an over 50% increase of the acres getting back into a fully irrigated crop rotation. The Ordinance Basalt area has seen over a 30% decline in available ground water (2333 acre feet) and has over 4,900 acres that have technically deficient rights out of the Columbia. This project will add roughly 9,000 acre feet of water to the Ordinance sub area. This project will impact the irrigated acres capable of handling a fully irrigated crop rotation by over 20%, as well as develop an additional 1,700 acres. 70% of the new acres developed in this area will be organic. The Echo Junction Sub area has seen its ground water curtailed by 80%. This project will add another nearly 800 acre feet to the Echo Junction Sub area. Providing a 63% increase over the available ground water. This additional water will add another 1,000 acres of new production, as well as adding support to an additional 5,300 acres.

Environmental Benefits ORS 541.673(3)

- (a) A measurable improvement in protected streamflows that accomplishes one or more of the following:
- (A) Supports the natural hydrograph;
 - (B) Improves floodplain function;
 - (C) Supports state- or federally-listed sensitive, threatened or endangered fish species;
 - (D) Supports native fish species of cultural importance to Indian tribes; or
 - (E) Supports riparian habitat important for wildlife:

By design this project will help to reduce the need of future withdrawals from the Columbia River during months critical to fish. It will also help to reduce the size of future mitigated, yet summer time Columbia River water right applications that the NOWA west project would require should it receive funding in the future.

- (b) A measurable improvement in groundwater levels that enhances environmental conditions in groundwater restricted areas or other areas:

This project will help to reduce the dependence on ground water in the critical ground water areas. In some of these critical ground water areas, the wells are the only source. This project will allow for the wells to be the last resort for fresh water instead of the first and only. By being able to grow a diverse crop rotation, water can be scheduled more efficiently by growing crops that have complimentary water use curves (not all crops need the water at the same time), instead of trying to manage a smaller amount of water on a lower valued monoculture system.

The long term goal of this project in combination with NOWA projects is diminish the reliance and annual use of native groundwater supplies in the Critical Groundwater Areas. NOWA intends to set up a basalt bank that would allow growers to get off of their wells by using sustainable surface and reuse water, while protecting those avoided groundwater supplies for drought, domestic and emergency. This project is a significant first step towards achieving that ability. Before a basalt bank can be established and decreased dependence on native basalt groundwater realized a sustainable alternative must first be identified and developed. This project provides that long-term, sustainable and reliable alternative that makes value-multipliers such as a basalt bank achievable.

- (c) A measurable improvement in the quality of surface water or groundwater:

This project is likely to yield exceptional improvements in water quality. One of the major components of this project is to move a major portion of the Port of Morrows land application sight out of the Lower Umatilla Ground Water Management Area. This area has historically high nitrate levels in the ground water. When the high nitrate water is used in conjunction with reuse water it results in excess nitrogen being applied to fields. With the shallow water tables in the area, this creates a perpetual issue of high nitrate ground water. This project will remove over 1.5 million pounds of nitrate load from the LUBGWMA ANNUALLY! This water will be applied to ground that is 300 feet to ground water, and very closely monitored by DEQ, the Port of Morrow, and the

farmers. Monitoring wells are to be installed so that there is accountability and assurances that we are not degrading ground water quality. Each field that has reuse applied to it is closely monitored to make sure that every precaution is taken to prevent leaching. If you look at the attached map (x) you will see the high nitrate areas that surround the Port of Morrows current land application system. By exporting over 1.5 million pounds of nitrate from this area annually we hope to see some of these levels start to improve.

A key component to being able to properly manage the land application of reuse water is the ability to use fresh water at critical times during the growth cycle. That is the purpose of this grant application. This grant is necessary for the fresh water components of this project to ensure the proper management of the land application of reuse water, in a very efficient and cost effective manner. This grant will help to develop 3 to 4 wells on the Port of Morrow. These wells are in the high nitrate LUBGWMA. The goal is to blend a small amount of the ground water with some Columbia River water on the days that the system is running fresh water. This will eliminate the issue of using high nitrate water on reuse ground, but will still provide an additional source of fresh water. One of the goals of this project is to use this ground water during the summer then work with NOWA in the future to get a winter injection system up and running. Our thought is to use the high nitrate water during the summer, pump clean water back down the holes in the winter and hopefully have a positive impact on the ground water quality in the area. This would be a very large public benefit as nitrate levels are currently above state and federal drinking water standards.

(d) Water conservation:

This project implements state of the art technology in water conservation. Due to the nature of this system being a dual use system delivering industrial reuse water and fresh water; it reduces the demand for fresh water. If the project was being built as a fresh water only system, we would be looking at an additional 7,500 acre feet of fresh water. But, since this project is supplying 7,500 acre feet of industrial reuse water we are able to cut our fresh water need by 61%.

The acres that this water is being applied on also all run the most efficient, up to date Nelson Nozzles on their center pivots. All the fields have either weekly or real time water monitoring systems on them helping to ensure that not a drop of water goes someplace it isn't going to do the most good. All of the pump station and pivots are all connected via telemetry allowing for real time decision making and monitoring.

(e) Increased ecosystem resiliency to climate change impacts:

Absolutely! There is no better way to compensate for climate change then giving our farmers the ability to put the right amount of water, in the right place, when it is needed. By including reuse water in this project we are also able to leave more water in the Columbia helping to flush young smolts downstream when high water temperatures can be an issue. If you are looking at the change in climate below ground, this project will help to lessen the stress on the deep basalt wells allowing for some natural recharge to occur.

Additionally, as stated previously, this project enables a future effort by NOWA to begin recovering deep basalt aquifers by first eliminating the current dependence on them to be achievable. Basalt aquifers can serve as a safe guard for the region during times of drought, enabling consumptive uses to switch to saved groundwater and saving surface water usually diverted for fish flows. Without a recovered supplemental source, there is no resiliency to climate change for either the environment or water dependent economy. This project facilitates possibilities for resiliency in both.

(f) Improvements that address one or more limiting ecological factors in the project watershed:

Again, by having this project be a dual use project we can use reuse during certain times of the year that are critical to fish and crops. We can't irrigate with 100 % reuse, but it eliminates the need for 100% fresh. We will also be exporting 1.5 million pounds of nitrate that could potentially be leaking into the Umatilla and Columbia rivers.

Social/Cultural Benefits ORS 541.673(4)

(a) The promotion of public health and safety and of local food systems:

With the addition of 3,000 acres new acres and the better irrigating of another 12,600 acres there will be an exceptional amount of additional value added food crops produced. If 10% of these new/better irrigated acres are growing potatoes they will produce an additional 106 million pounds of potatoes. The organic acres will produce an additional 15.65 million pounds of organic peas, beans, and sweet corn. If onion production takes makes up 5% of these new acres, there will be an additional 51.8 million pounds of onions. It is anticipated that this project will also produce an additional 17.6 million pounds of alfalfa, 3.78 million pounds of wheat, 17 Million pounds of carrots, along with opening to door for various seed crops.

(b) A measurable improvement in conditions for members of minority or low-income communities, economically distressed rural communities, tribal communities or other communities traditionally underrepresented in public processes:

Based upon review of the Business Oregon Distressed communities link (reference: <http://www.oregon4biz.com/Publications/Distressed-List/>) this project serves to provide job opportunities to the distressed communities of Irrigon, Boardman and Umatilla County. Based upon figures derived by the State of Oregon Employment Department (Attached as Exhibit __), west Umatilla County and north Morrow County provide over 54% of the job opportunities for the region. The dual use recycling and re-use project will benefit those seeking entry level jobs in the agriculture and agribusiness industries as well as many job opportunities in higher skilled, higher paying positions such as plant technicians, machinists and metal fabrication, data technicians and support, business & financial management. The resulting job opportunities sited in the economic benefits section of this grant application provides opportunities for all skillsets to get out and stay out of poverty.

Additionally, the agricultural lands that will benefit from the additional water supplies are significant contributors to local food banks and to Capeco whose food programs serve a large portion of the areas minority, at-risk and underprivileged populations. As additional lands and income opportunities are provided to the farms through this project, so too are opportunities for additional food donations to the regions underprivileged populations.

(c) The promotion of recreation and scenic values:

The Port of Morrow and Madison Ranches promote recreation, scenic values and tourism. The Port of Morrow developed the Sage Center, an interactive learning center, for the purpose of promoting Agritourism and Energy education. At the SAGE Center, students learn how the region was settled, when irrigation, the interstate highway system and hydroelectric dams were implemented, and how agriculture has changed over time. Technology has played a pivotal role in agriculture and energy production, making both industries viable for today's growing population. Irrigation efficiency, industrial technology, food processing, safety, transportation, energy generation, and sustainability are all addressed during an educational visit to the SAGE Center.

(d) Contribution to the body of scientific data publicly available in this state:

The Port of Morrow reuse project will contribute a great deal of data to the public. As with all reuse permits, there is extensive monitoring and record keeping. Fields are soil sampled prior to the planting of every crop and all available nitrogen is accounted for. Crop rotations are managed based on soil sample results as well as good rotational practices. Any potential residue that is left behind that might break down at a later date is also accounted for by those involved in the permit compliance effort. Every pound of nitrogen on a reuse farm is accounted for, recorded, then reported in a public DEQ annual report which is much more restrictive than non-reuse programs.

There are also monitoring wells that are to be installed on the up gradient and down gradient sides of the land the is receiving reuse water. This is to ensure that there is absolutely no degradation of the native ground water. Each field has a neutron probe installed in it year round. These probes allow the farmer, and DEQ to track the wetting front of the irrigation water as the profile fills. This data allows for educated decisions on when to apply additional water, when to quit applying and additional water, as well as to serve as evidence to any potential DEQ permit violations. Again, all this data is reported on annually by DEQ in a public report.

The best management practices that are employed on a properly ran reuse farm can serve as a model for any farm. As best management practices continue to advance and be employed by reuse farms, all of the trials and results will continue to be available in the annual report for others to learn from, or build studies off of.

In addition to the monitoring and reporting on these farms, the farms themselves in the area are very generous with their time, giving multiple tours a month to local schools, science camps (e.g. the Hydromania Summer Science Camp), and community outreach groups. These tours showcase the high level of efficiency that is being applied to day to day decisions regarding water, crop protection, energy conservation and crop nutrition management.

(e) The promotion of state or local priorities, including but not limited to the restoration and protection of native fish species of cultural significance to Indian tribes:

This project is a model of direct implementation of Action Item 10.C of the Integrated Water Resources Strategy (IWRS, Page 94) which directs OWRD and other state partners to “[e]ncourage additional water reuse projects.” In addition to the Integrated Water Resources Strategy, this project is consistent with or implements a recommendation of the Umatilla Sub-Basin 2050 Water Management Plan (Pages 2 and 32) that direct the region to find supplies to first rehydrate Critical Groundwater Areas while also implementing the LUBGWMA Action Plan), The 1986 Governors Task Force (Page 3), the Lower Umatilla Basin Groundwater Management Area Action Plan (pages 21-22 encouraging land application programs to ensure proper nutrient loading and best management practices are implemented), and the Columbia River – Umatilla Solutions Task Force Declaration of Cooperation (page 4 encouraging more innovative water management).

The Confederated Tribes of the Umatilla Indian Reservation have participated in all 5 planning processes where these recommendations and action items were developed. They have signed or supported 4 of the 5 documents (Integrated Water Resources Strategy, 2050 Plan, CRUST and 1986 Task Force).

(f) The promotion of collaborative basin planning efforts, including but not limited to efforts under Oregon’s Integrated Water Resources Strategy:

As stated above, the vision for this project as well as other water recycling and re-use projects came out of recommendations of multiple public planning and Task Force efforts completed throughout the years. Currently, this project is designed to be part of a larger, regional water re-use and nitrate monitoring effort that is being spearheaded by the Northeast Oregon Water Association, Oregon Department of Environmental Quality and Regional Solutions. The attached DEQ letter documents the interest of DEQ in working with Umatilla and Morrow Counties on a comprehensive look at land application rates of nutrients and innovative ways to agriculture and industry needs while also improving environmental conditions.

2. Identify Project Location.

(a) Attach map of project implementation area if appropriate. List map(s) in this space and attach to application. Attached Maps include Tax Lot, GSI Expansion area, IRZ CGWA/Target areas, Nitrogen concentration areas, Pond maps

(b) Township	Range	Section	Quarter-Quarter Section
2	27, 28	See	
3	26, 27, 28	attached list	

(c) Tax Lot Number(s)
See attached list

(d) Latitude/Longitude

45 43' 30" N/ 119 28' 10" N

(e) County
Morrow

(f) Watershed

(g) River/Stream Mile (where applicable)

3. (a) Will the project result in a physical change on private land? Yes No

If yes, attach evidence that landowners are aware of and agree to the proposal. List attachments below.
Letters attached: Madison Ranches and Hale Farms

(b) Will the project result in monitoring on private land? Yes No

If yes, attach evidence that landowners agree to the proposal and are aware that monitoring information is public record. List attachments below.
Madison Ranches letter

4. Provide a project schedule, including beginning and completion dates. Use the following table as a guide. Attach a separate sheet to application if needed.

Estimated Project Duration: February 1, 2016 to October 30, 2017

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

Project Key Tasks	2016				2017				2018 & Beyond
	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	
Engineering and Design	X	X	X						
Permits			X						
Pipe Materials			X	X					
Construction				X	X	X	X		
Private Ag Infrastructure Investment				X	X	X	X	X	
Substantial Completion								X	

5. Describe any conditions that may affect the completion of the project.

Additional funding of the project is necessary to complete the project. Everything else is in the process and ready for project to commence.

6. Attach a completed feasibility analysis if one has been completed.

Attached GSI Report

7. Provide suggestions for interim and long-term project performance benchmarks.

Interim Benchmark #1: River station connected to system.

Interim Benchmark #2: Freshwater Pond construction completed.

Interim Benchmark #3: Wells connected to system.

Long-Term Benchmark #1: Private Distribution systems developed and fully using the system within 5 years of project funding

Long-Term Benchmark #2: Basalt Bank rules established within 5 years project funding

Long-Term Benchmark #3: 10 feet of basalt aquifer recovery documented in applicable Sub-Areas within 5 years of funding

Long-Term Benchmark #4: 100 feet of basalt aquifer recovery documented in applicable Sub-Areas within 10 years of funding

Long-Term Benchmark #5: Downward trend in nitrate contaminations in area of impact within 5 years of project funding

8. Provide letters of support for the proposed project (list in this space and attach to application).

Letters attached: Oregon Department of Environmental Quality, Northeast Oregon Water Association, Madison Ranches, Hale Farms, City of Boardman, Mader-Rust, Inc., Umatilla County.

9. Describe partnerships and collaborative efforts associated with the project.

Madison Ranches and Hale Farms letters regarding their interest and collaboration with this project.

10. Consultations/communications with affected Indian tribes and with the Legislative Commission on Indian Services regarding the project.

Has the Legislative Commission on Indian Services been contacted to identify tribes affected by the project?

Yes No

Please provide correspondence as an attachment to this application.

Jake Madison email to Laura Quigley attached.

Has there been consultation/communications with affected Indian tribes?

Yes No

Please provide a description of consultation/communication that occurred and attach documents to this application if applicable.

Email to Legislative Commission was completed.

11. Provide a description of:

(a) Required local, state and/or federal **permits** and/or authorizations for project implementation that have been secured to date. Please attach secured permits/authorizations to the application.

Land Use Compatibility Statement authorization attached,

(b) Required local, state and/or federal permits and/or authorizations that will be secured in the future to implement the project. Describe efforts to date in securing these permits and/or authorizations.

Permits currently in process (most attached): Oregon DEQ WPCF permit referenced in letter from DEQ, Water Resources Department Dam Safety Review, Morrow County Public Works easement, Crossing permits from: Oregon Department of Transportation, Columbia Improvement District, Bureau of Reclamation, Morrow County Public Works, and Union Pacific Railroad. These are all in process and we do not anticipate any concerns in getting these authorizations approved.

12. Provide any additional supplemental materials to demonstrate ability to implement the project. Examples include project plans and specifications, engineering details and **water availability analysis**. List documents in this space and attach to application.

V. Storage Project Requirements (if not a storage project continue to Section VI)

For any storage project please contact Water Resources Grant Administrator, Jon Unger, at (503) 986-0869 prior to completing the application.

13. Storage Project Type: Above Ground Below Ground

14. If above-ground storage, would the proposed storage project be located in-channel?

Yes No N/A

15. Identify the capacity in acre-feet of the proposed storage project.

Less than 500 acre-feet during the storage season. +/- 2100 acre-feet utilized as a surge basin during the irrigation season

16. Has a water right application been filed for the proposed storage project?

Application not yet made.

Water right application made; permit not yet issued Application #

Permit issued. Application # Permit #N/A Surge

Basins are permitted under the DEQ Permit

For Questions 17 & 18 answer the following:

(a) Does the proposed storage project impound surface water on a perennial stream?

Yes No Uncertain

(b) Does the proposed storage project divert water from a stream that supports state- or federally-listed sensitive, threatened or endangered fish species?

Yes No Uncertain

(c) Does the proposed storage project divert more than 500 acre-feet of water annually?

Yes No

17. Water Dedicated Instream N/A

For above ground storage projects seeking grant funding: If you answered “yes” to any of the questions posed in a-c above a minimum volume of water equal to at least 25% of the stored water must be dedicated to instream use.

Identify percentage of stored water to be dedicated to instream use.

%

Note: Any storage project dedicating 25% of stored water to instream use will automatically receive a median score in the environmental public benefit category with the opportunity to demonstrate additional environmental benefit to increase the score.

18. Seasonally Varying Flow Prescription

For all storage projects: If you answered “yes” to any of the questions posed in a-c above the project will need a **Seasonally Varying Flow (SVF) Prescription**, determining the duration, timing, frequency and volume of flows (including ecological baseflow), necessary for protection and maintenance of biological, ecological, and physical functions outside of the official irrigation season. The initial step in defining the SVF for the project is to schedule an SVF meeting with OWRD. For assistance and more information please contact Water Resources Grant Administrator Jon Unger at (503) 986-0869.

Identify whether the storage project will need a Seasonally Varying Flow Prescription.

Yes No Uncertain

VI. Environmental Public Benefit for Conservation Projects Dedicating Water Instream (if not a conservation project continue to Section VII)

19. Identify percentage of conserved water to be dedicated to instream use. N/A

%

Note: Any project that conserves water and dedicates at least 25% of the conserved water quantity to instream use will automatically receive a median score in the environmental public benefit category with the opportunity to demonstrate additional environmental benefit to increase the score. Water dedicated to instream use must be permanently placed instream and protected by the Oregon Water Resources Department.

VII. Financial Information

For Loan Applicants – Since loan applications do not require cost match, loan applicants who do not offer a cost match need not complete Section A and can disregard the match funding columns in Sections B and C. Budget and costs of key tasks must be identified in sections B & C. Loan applicants will be required to provide additional financial information related to their ability to repay the loan. This request for information will take place after the scoring and ranking process for those projects that are recommended for funding.

For Grant Applicants – Complete Sections A, B and C.

Section A – Cost Match Information

Applicants must demonstrate a minimum 25% funding match based on the total project cost. The match may include: a) applicant funds or 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 project. For secured funding, the applicant must attach a funding award letter 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. Funds expended prior to grant agreement are not reimbursable nor do they qualify for cost match without prior authorization by the Department.

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 - Funding commitments already secured 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 <i>(if in-kind, briefly describe the nature of the contribution)</i>	Type <i>(✓ One)</i>	Status <i>(✓ One)</i>	Amount/ Dollar Value	Date Match Funds Available <i>(Month/Year)</i>
<i>Port of Morrow SPWF Loan</i>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input checked="" type="checkbox"/> pending	<i>\$12,618,566.00</i>	<i>March 16</i>
<i>Port of Morrow construction</i>	<input type="checkbox"/> cash <input checked="" type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<i>\$1,317,980.00</i>	<i>March 16</i>
<i>Private Farm Investment</i>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<i>\$11,000,000.00</i>	<i>March 16</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		

Section B – Project Budget

Please provide a line item budget for the project; see example below. If significant additional detail is needed please complete separately and attach to completed application.

Line Items	Number of Units* (e.g. # of Hours)	Unit Cost (e.g. hourly rate)	In-Kind Match	Cash Match Funds	OWRD Funds	Total Cost
Materials						
Contractual/Services						
Staff Salary/Benefits						
Equipment (must be approved)						
Supplies						
<i>Other:</i>						
<i>See attached detailed budget</i>						
Total for Section B			\$1,317,980.00	\$23,618,566.00	\$10,094,421.00	\$35,030,968.00
Percentage for Section B			5%	67	28	100%

* Note: "Unit" should be per "hour" or "day" not per "project" or "contract." Number of Units x Unit Costs = Total Cost

Section C – Key Task Cost

Complete Section C below. Key Tasks identified in Section C should be the same as the Key Tasks in Section IV(4) above.

