1% for the Tetons – Grant Application Form

Please use this form to apply for funding from *1% for the Tetons*. Submit via email to: grants@1PercentTetons.org. Please put your organization's name in the subject line.

Application deadline is 5:00 pm (MDT), June 12, 2009. Late applications will not be considered.

Please complete this form and submit your completed application as a Microsoft Word document.

Organization Name: Teton Conservation District
501(c)3 number (if applicable):

Address: P.O. Box 1070, Jackson, WY 83001

Contact person & title: Dan Leemon, Teton Conservation District, Water Resources Specialist

Phone # (307) 733-2110 **Fax #** (307) 733-8179 **Email address:** dan@tetonconservation.org

Title of Application: Residential Wetland Wastewater Treatment Demonstration Project

Amount Requested: $34,759

Summary statement describing your proposal *(75 words or fewer)*
Teton Conservation District (TCD) would like to install and test a residential wetland wastewater treatment system on an existing home within the Fish Creek watershed to determine if it is a cost effective method to improve water quality treatment and water conservation in the greater Teton ecosystem.

Please use the questions below to fully describe your program. While there is no word limit for your responses, the grants committee deeply appreciates clarity and conciseness.

A. Fully describe the program for which funding is requested. If this is a collaborative project with several entities, explain the role of each. Indicate the date range of the program.
Teton Conservation District (TCD) would like to partner with Intermountain Aquatics (IMA), the Pomeroy Family, Wyoming Department of Environmental Quality (WDEQ), and the Teton County Engineer Department to install and test a residential wetland wastewater treatment system to improve water quality and water conservation within the Fish Creek watershed. The system is comprised of two parts:

1) A re-circulating vertical flow (RVF) wetland that functions as a water quality filter between a traditional septic system and leach field.

2) A drip irrigation network that promotes water conservation by utilizing water from the wetland to irrigate residential landscaping during the growing season.

Residential wetland wastewater treatment systems are small, compact wetland filters that provide an ideal biological environment of plants, microbes and gravel particles to filter pollutants and uptake nutrients (Figure 1). They have been demonstrated to improve the water quality of septic tank effluent by as much as 90% and are an ideal system for rural residences in areas with a high groundwater table (Figures 2 and 3). They are a low-cost, low-maintenance and low-energy use system that can be used in new construction or added to an existing septic system.

Fig. 1 - Residential wetland wastewater treatment system

Fig. 2 - Septic tank effluent (left) vs. wetland effluent (right)

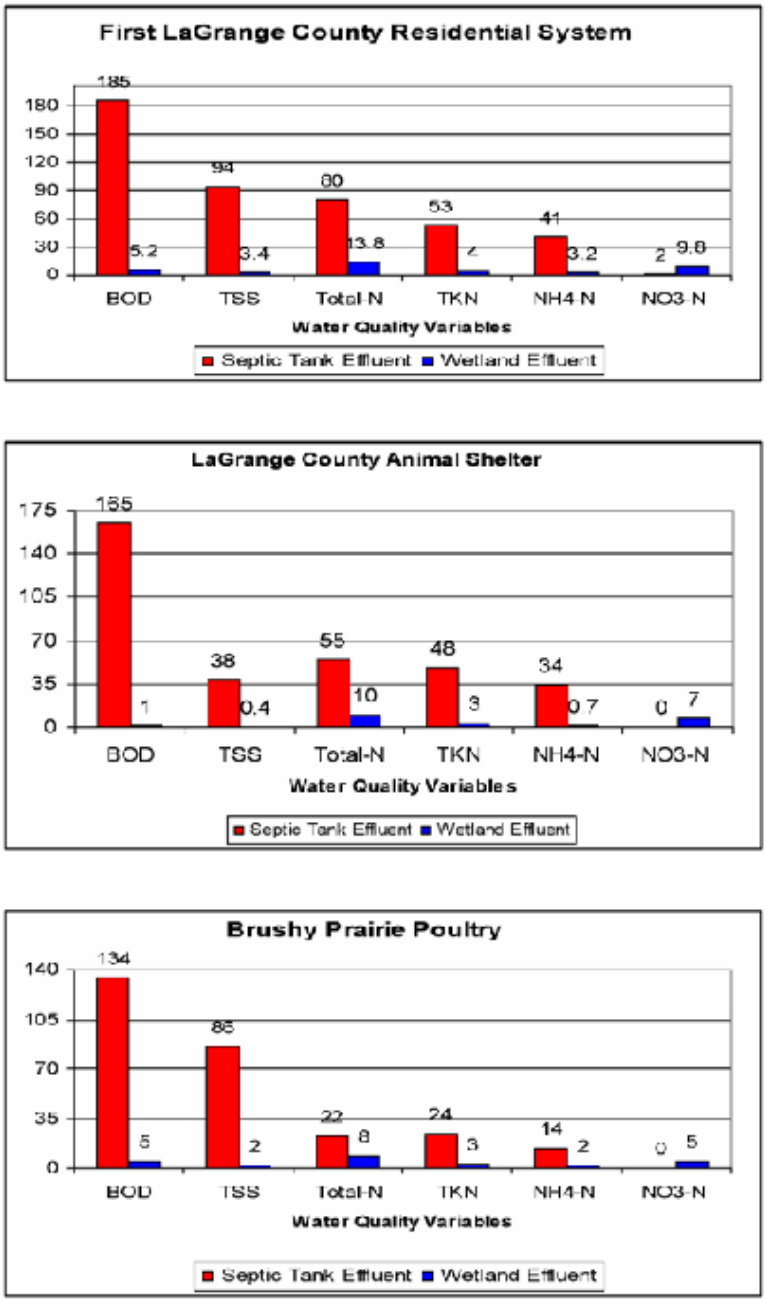

Fig. 3 - Water quality performance of three residential wetland wastewater treatment systems regularly monitored in LaGrange County, IN over the past seven years.

Taken from: Recirculating Vertical Flow Constructed Wetlands for Treating Residential Wastewater. Purdue University Extension. January 2008. http://www.extension.purdue.edu/extmedia/AY/RW-4-W_08.pdf

Residential treatment wetlands are an accepted technology that have been used successfully throughout Europe for over forty years and have been demonstrated to be an effective water treatment system in the U.S. They have had limited use in the intermountain west due to a lack of demonstration projects that have collected performance data throughout the winter months. The scientific literature suggests that these wetlands function year-round in cold climates, however more data needs to be collected to satisfy state and local permitting agencies (Select references provided in Question B.). The Idaho Department of Environmental Quality is currently sponsoring a demonstration project to evaluate three residential wetland treatment systems in the Sun Valley area. The purpose of this project is to install a residential wetland treatment system, collect performance data and demonstrate water quality and water conservation improvements in the Fish Creek watershed to the Wyoming Department of Environmental Quality and Teton County Engineer.

The goals of the project are:

1. To demonstrate and quantify water quality improvements when an RVF wetland is added to a traditional septic tank and leach field system.
2. To demonstrate and quantify water conservation when a drip irrigation system is utilized (instead of a leach field) to recycle water during the growing season.
3. To provide enough empirical data for the permitting agencies to decide if these systems are an accepted practice in the state of Wyoming and if the permitting process can be standardized.
4. To provide a public demonstration with a detailed cost benefit analysis to provide support and incentives for the installation of multiple systems throughout the greater Tetons ecosystem.

ROLES

Over the past decade, TCD has extensively monitored and assessed water and aquatic habitat quality in the Fish Creek watershed and determined a need to implement measures to prevent further degradation of the water resources in this area. At the same time, IMA has been researching, developing and adapting a residential wetland wastewater treatment system for use in the region and has recognized the Fish Creek watershed as the ideal location for these systems. This past spring, IMA approached TCD, WDEQ and Teton County to support a demonstration project and has also partnered with a suitable and eager landowner, the Pomeroy Family. The following are the roles of the project partners:

Teton Conservation District
Project and fiscal administration, education and outreach coordination, water sampling partner, cost-share funding.

Intermountain Aquatics
Technical consulting and engineering, liaison to WDEQ and Teton County Engineer, project and construction management, water sampling partner, project performance quality control, cost-share funding.

Pomeroy Family
Landowner, suitable site for project, environmentally conscious citizen, cost-share funding.

Teton County Engineer Department
Permitting agency, technical advisory role, permit process standardization.

Wyoming Department of Environmental Quality
Regulatory authority, project performance review, permit process standardization.

PROJECT WORK PLAN

June-July 2009*

Objective 1: Finalize project design & monitoring details

Task 1 – Identify landowner partner (Pomeroy Family)

Task 2 – Finalize system design & engineering

Task 3 – Meet w/ WDEQ and Teton County to discuss and finalize monitoring plan and permit application. Make sure that monitoring parameters, frequency and duration will provide sufficient data for the agencies to make administrative decisions.

**Work in progress or completed in order to stay within construction season limitations.*

July 2009

Objective 2: Install system

Task 1 – Order materials, line up excavator

Task 2 – Line out IMA staff on installation specifications

Task 3 – Install system (1 week)

Task 4 – Plant wetland plants

July 2009 – July 2010

Objective 3: Monitor system

Task 1 – Assign data collection to IMA staff, train

Task 2 – Conduct monitoring according to plan

July 2009 – July 2010

Objective 4: Analyze results

Task 1 – Analyze results quarterly and email to project partners

Task 2 – Summarize project results

September 2010

Objective 5: Report findings.

Task 1 - Prepare final report, give presentation to partners

Fall 2010

Objective 6: If findings are favorable, develop strategy to have RVF wetland permitted by WDEQ and Teton County and encourage the use of the system region wide.

Winter 2010 - 2011

Objective 7: Share results with conservation districts, county governments and other organizations.

B. What need or trend does this program address?

The greater Teton ecosystem, like many rural areas, relies on traditional septic tanks and drain fields to treat residential wastewater. These traditional systems often do not provide adequate water quality protection, particularly in areas of high groundwater and/or permeable soils. Septic systems that are not maintained often fail to provide sufficient treatment and pollution is sent directly to the water table via clogged leach fields. There are no current regulations that require individuals to maintain or monitor their septic systems and therefore, their contribution to decreased water quality levels is unknown. There are over 1,500 septic systems permitted in the Fish Creek watershed and water quality in Fish Creek has been declining for the past decade. Septic systems are likely one of several contributors to this decline. There is a real need for a practical, affordable solution that improves the water quality treatment of existing and new septic systems on the west of the Snake River and throughout the greater Teton ecosystem. TCD provides a leadership role in evaluating water quality trends in Teton County, Wyoming. This project will directly speak to the public's request for active solutions that address declining water quality in Fish Creek.

What data support this? Include citations &/or web links.

Performance data exists for hundreds of European systems and some data sets cover over 20 years and address long-term performance. There are only a handful of similar systems in the U.S. and to our knowledge, none in Wyoming. There is also an inherent skepticism of how these systems perform in cold climates. The scientific literature shows that these systems perform well in the winter and that it is actually the microbial environment, rather than the plants, that provides the water treatment. The microbes stay active

through the winter months when the plants are dormant. Select references that highlight local supporting data and professionals that will be working on the project are listed below.

SELECT REFERENCES

Wyoming Ground Water Vulnerability Assessment Handbook. Appendix E15: Teton County Aquifer Sensitivity. http://www.wygisc.uwyo.edu/groundwater/cnty15/Vol1_AppE15.pdf

Fish Creek Watershed Water Quality Monitoring Program. 1996-present. Teton Conservation District, Jackson, WY.

Microbial Source Tracking for Escherichia coli in Two Upper Snake River Basins: Fish Creek and Flat Creek Basins, Teton County, Wyoming, March-November 2003. Teton Conservation District, Jackson WY. **Brian Remlinger (Intermountain Aquatics consultant).** May 2005.

Recirculating Vertical Flow Constructed Wetlands for Treating Residential Wastewater. Purdue University Extension. January 2008. http://www.extension.purdue.edu/extmedia/AY/RW-4-W_08.pdf

Wastewater Technology Fact Sheet Wetlands: Subsurface Flow. US Environmental Protection Agency. http://www.epa.gov/npdes/pubs/wetlands-subsurface_flow.pdf

Riley, K.A., O.R. Stein and **P.B. Hook (Intermountain Aquatics consultant)**. 2005. Ammonium removal in constructed wetland microcosms as influenced by presence and species of plants and organic carbon load. Journal of Environmental Science and Health Part A. 40(6-7):1109-1121.

Stein, O.R., and **P.B. Hook (Intermountain Aquatics consultant)**. 2005. Temperature, plants and oxygen: how does season affect constructed wetland performance? Journal of Environmental Science and Health Part A. 40(6-7):1331-1342.

C. How does this program further the mission of *1% for the Tetons*?

Through cooperation with regulatory agencies and community outreach, a residential wetland wastewater treatment demonstration project will encourage rural landowners to provide a higher level of water treatment on their property. The wide spread use of this type of system will contribute to the long-term sustainability of the water quality of the region and promote water conservation. The project will address a critical link between the area's economic, social and environmental qualities by providing "green" jobs through the installation of multiple systems and giving environmentally conscious citizens an affordable tool that they can add to their existing homes to promote the improvement of water quality. The monitoring portion of the project has been designed to produce unambiguous scientific results by collecting data for multiple water quality parameters, bi-weekly, for twelve months. Residential treatment wetlands are a forward looking solution that can be added to preserve the life of the 1,500 septic tanks already in operation in the Fish Creek Watershed and prevent them from further impacting water quality as they age. Consistent with 1% for the Tetons criteria, this project emphasizes a collaborative approach with multiple partners investing time, money and expertise to get the most out of the demonstration project in a reasonable timeline.

D. How does this proposal address each of the 8 Criteria? Specifically address the following:

i. Re. Criterion #4, what is the role of *1% for the Tetons'* funding in starting or modifying your program?

1% for the Tetons' funding will start the construction and implementation of the project that has been ready for some time, but has experienced roadblocks that have prohibited the demonstration project. The primary roadblock has been funding to cover the extensive performance-monitoring component that is necessary to demonstrate that the system results in improved water quality. It

is the monitoring component and approval by the regulatory agency that will allow for the wide spread use of the treatment wetland.

ii. Re. Criterion #6, what are the specific, measurable objectives of this program? How will you measure success against each of your objectives? Is there baseline information against which to measure success? What objective methodology will you use to evaluate the performance of the program?

Measurable Project Objectives

Water Quality Parameters

Water quality data will be collected every two weeks at two locations: leaving the septic tank and leaving the treatment wetland.

- pH, conductivity, dissolved oxygen, turbidity, temperature
- Biological oxygen demand (BOD), total suspended solids (TSS)
- Nitrate, NH4/TKN/organic N, ortho-phosphate, total phosphorus
- Fecal coliform

Water Quantity Parameters

- Water reused (gallons per year) as drip irrigation
- Total wastewater quantity (gallons per year) treated by wetland

Baseline Information

Baseline information for the project is based off existing research and literature published on the subject. It is well documented that traditional residential wastewater treatment by septic tanks and leach fields provides minimal water quality treatment. In the upper Snake River watershed of Wyoming, effluent from a typical septic tank ranges from 50-100 times the pollutant concentration of ambient water quality (Figure 3 and TCD Water Monitoring data, 1996-present). Water quality data collected from the septic tank effluent along with published results will be used to form the baseline.

Measure of Success & Objective Methodology

Once the system is installed and monitored, the data can be used to quantify:

1. The percentage of enhanced water quality from a traditional septic / leach field system to one with an RVF wetland and drip irrigation system. (Literature shows that we can expect 80%-90% improvement.)
2. The percentage/quantity of water conservation from a traditional system to one with a drip irrigation system. (EPA references show that this could be a water savings of 18,000 gallons per year per household.)
3. A cost-benefit analysis of the project.
4. A summary of the benefits to the Fish Creek watershed if "x" number of existing systems were retrofitted.

iii. Re. Criterion #7, please include letters of support and commitment from participating organizations. Describe how the collaboration is going to work – what is the role of each partner? If collaboration is not possible or desirable, please explain why.

Letters of Support and Commitment attached.

Roles described under Question A. of this application.

iv. Re. Criterion #8, describe your other funding sources, and whether or not they are committed at application time.

TCD

Funds committed by Board of Directors on June 16, 2009: $22,234

IMA
Funds committed by owners on May 16, 2009: 140 consultant/engineer hours ($13,300)
Reynolds Family
Funds committed by landowners on June 1, 2009: $4,321

E. Provide a project budget, including revenue and expense. Add narrative explanations as necessary.

Attached at End of Application
Project Budget
System Detail Budget
Monitoring Detail Budget

F. Has applicant received a *1% for the Tetons* grant before? If so, has *1% for the Tetons* received and approved a final report for each grant given?

TCD received a 1% for the Tetons grant in 2008 for the Karns Meadow Stormwater Treatment Wetland. A final report has not been approved at the time of this application.

G. Is there additional information you would like to provide?

By submitting this proposal, Teton Conservation District agrees that ***1% for the Tetons*** has the right to utilize the supporting data however it sees fit, including publishing it.
Further, if this application is funded, Teton Conservation District agrees that ***1% for the Tetons*** may:

- publish the application in its entirety, including the follow-up evaluation and outcomes report;
- report on, photograph, videograph, and/or otherwise publicize the funded project, and use such information as it sees fit.

Submitted by:	Dan Leemon, Water Resources Specialist	Teton Conservation District	June 12, 2009
	Name & Title	Organization	Date

Signature: N/A, submitted electronically

If sponsored by another organization, please provide the name, title and signature of the sponsoring organization's responsible party below.

Sponsored by:	Brian Remlinger, Consultant	Intermountain Aquatics, Inc.	June 12, 2009
	Name & Title	Organization	Date

Signature: N/A, submitted electronically

Cost-share Budget Form – Project Totals

Residential Wastewater Treatment Wetland Demonstration Project

June 9, 2009

June 2009		PROJECT TOTAL	Teton Conservation District	Intermountain Aquatics, Inc.	Landowner	1% for the Tetons
Objective 1: Finalize project design & monitoring details						
	Task 1 – Identify landowner partner	**$760**		$760		
	Task 2 – Finalize system design and engineering	**$2,280**		$2,280		
	Task 3 – Finalize monitoring plan and permit application	**$760**		$760		
	Task 4 - Administration, project management, overhead	**$2,600**	$2,600			
July 2009						
Objective 2: Install system		NOTE: Worst case cost scenario estimate, receipts will be itemized and billed according to actual costs and percent of cost-share				
	Task 1 – Order materials, set up subcontractors	**$380**		$380		
	Task 2 – Planning for installation specifications	**$760**		$760		
	Task 3 – Install system (3 days, 2 laborers, 1 supervisor), plant installation	**$3,000**				$3,000
	System Costs *(See attached detail)*	**$7,946**			$4,321	$3,625
	Solar power kit for pumps	**$1,200**				$1,200
	Wetland plants (delivered)	**$1,200**		$1,200		
	Contingency (10% of install and system costs)	**$1,095**				$1,095
July 2009 – July 2010						
Objective 3: Monitor system						
	Task 1 – Planning and organization for monitoring	**$1,520**		$1,520		
	Task 2 – Conduct monitoring according to plan *(See attached detail)*	**$36,913**	$11,074			$25,839
September 2009 – May 2010						
Objective 4: Analyze results						
	Task 1 – Analyze results quarterly and email to project partners	**$3,040**		$3,040		
	Task 2 – Summarize project results, statistical analyses	**$3,800**		$3,800		
September 2010						
Objective 5: Report findings.						
	Task 1 - Write final report, give presentation to partners	**$3,800**	$3,800			
	Printing Costs	**$200**	$200			
Fall 2010						
Objective 6: Develop strategy to encourage the use of the system within the region.		**$2,280**	$2,280			
Winter 2010 - 2011						
Objective 7: Share results with other conservation districts and organizations.		**$2,280**	$2,280			
	TOTAL	**$75,814**	**$22,234**	**$14,500**	**$4,321**	**$34,759**

DETAIL

SYSTEM COSTS

June 9, 2009

Component	Quantity	Unit	Estimated Cost/Unit	Estimated Cost	Notes
Earthwork	175	CY	$12	$2,100	over excavate pit and backfill needed, price does not include hauling
Sand	15	TN	$30	$444	assume 1.5 tons per CY (price per ton varies widely)
Gravel (0.25")	56	TN	$30	$1,667	assume 1.5 tons per CY (price per ton varies widely)
Liner (30 mil PVC)	1360	SF	$0.78	$1,061	price variable on size of order
4" PVC (sch.40)	250	FT	$1.20	$300	rough estimate, will require revisions based on site constraints
2" PVC (sch.40)	150	FT	$0.60	$90	rough estimate, will require revisions based on site constraints
1" PVC (sch.40)	350	FT	$0.30	$105	rough estimate, will require revisions based on site constraints
Pipe Fittings (sch.40)	1	LS	$300	$300	rough estimate - need to count number, size and type of fittings needed
Pump Basin	2	EA	$300	$600	fiberglass with lid, 30" dia, 10' height (Orenco or equiv)
Pump - wetland recirc	1	EA	$240	$240	1/3 HP (PF33VF or equiv) 50 gpm flow at 10' hydraulic head
Repeat cycle timer for pump	1	EA	$120	$120	2 min/30 min from Aquatic Ecosystems (model T5)
Pump - drip field	1	EA	$240	$240	1/3 HP (PF33VF or equiv) 50 gpm flow at 10' hydraulic head
Pump - sump for sampling	1	EA	$120	$120	sump pump needed to pull samples in pipe upslope of leach field
Concrete	0.2	CY	$120	$19	4" slabs under pump vaults
Dosing tank	1	EA	$540	$540	
			TOTAL	**$7,946**	

DETAIL MONITORING COSTS

June 9, 2009

Item	Quantity	Units	Estimated Cost/Unit	Total	Notes
System features needed for monitoring	Items that need to be built into system for flow measurement and water sampling, included in construction budget				
Dosing tank between septic tank and wetland	1		included		Tanks for wetland dose inputs and wetland recirculation
Wetland recirculation pump vault	1		included		
Dripfield liner collection sump	1		included		Water collected by synthetic liner and underdrain flows to sump, then pumped to drainfield
Dosing pumps and controls	4		included		Assumes each pump is separately controlled with a simple timer controller and that data recording is separate. Integrated data logger in electronic monitoring item also has ability to function as a logic controller for pumps at small additional cost.
Wetland water sampling tubes	lump			$50	Small pipes with openings in wetland and 'reservoir' areas for sampling
Electrical meters	1	each	$300	$300	Dedicated single-phase meter for water pumps.
			Subtotal	**$350**	
Additional monitoring equipment					
Electronic monitoring equipment					Very rough estimate from online pricing and Intermountain Environmental. Need to get system configured and priced by supplier.
Water level sensors	1	each	600	$600	Wetland/reservoir
Soil moisture resistance blocks	8	each	300	$2,400	Or similar for relative water content. For dripfield (4) and wetland (4).
Precipitation gauge	1	each	400	$400	
Motor operation sensors (event, duration)	5	each	200	$1,000	
Field water quality meter	1	each		$0	Use exisitng: pH/EC/mV/temperature/DO
Water sampling equipment	1	each	$1,100	$1,100	Quick release peristaltic pump and power supply. This assumes manual sampling with high quality assurance. Less expensive and more expensive options are available).
			Subtotal	**$5,500**	
Staff time					
Prepare SAP and QAPP	30		$95	$2,850	Sampling & Analysis Plan, Quality Assurance Project Plan per DEQ standards
Bi-weekly field sampling and inspection	78		$65	$5,070	3 hours per sampling event for travel, to collect water samples, download data loggers, inspect system and test operation, package and ship samples
Travel costs	1560	mile	$0.585	$913	Mileage
Data analysis and reporting	26		$95	$2,470	Biweekly review (1 h)
			Subtotal	**$11,303**	
Laboratory analysis (annual)					
Annual costs. Assumes biweekly (every 2 weeks) sampling at 3 points within system plus average of one sample duplicate per date.					
Field sampling supplies	104		$15	$1,560	Filters, tubing, pH/EC standards, miscellaneous
Shipping	104		$35	$3,640	Supplies and cooler from lab; next day shipping of samples to lab
Laboratory analysis	104		$140	$14,560	Analytical Laboratories Inc, Boise: TSS $11, BOD $21, nitrate $17, NH_4/TKN/organic N $37, ortho-P $16, total P $18, fecal coliform $20 = $140. 5% volume discount possible.
			Subtotal	**$19,760**	
			TOTAL	**$36,913**	

INTERMOUNTAIN AQUATICS INC.
ENVIRONMENTAL CONSULTING & HABITAT RESTORATION

June 10, 2009

1% for the Tetons
2009 Grant Application
Title of Application: Residential Wetland Wastewater Treatment Demonstration Project

Dear 1% for the Tetons,
Intermountain Aquatics, Inc. has recently partnered with Teton Conservation District to construct and implement a residential wetland wastewater treatment demonstration project with the goal of promoting and installing this system region wide to improve and conserve water resources. We are committed to contributing 140 in-kind consultant & engineer hours equal to $13,300 and wetland plants valued at $1,200 for the following project objectives and tasks:

- Project management & technical consulting
- Final design & engineering
- Regulatory permit application & performance monitoring plan
- System installation planning & supervision
- Performance monitoring supervision & data analysis
- Final report and information sharing

Intermountain Aquatics has been looking at recommending and installing residential wetland treatment systems for 10 years, however, the regulatory permitting requirements have prevented us from moving forward. The approval and support of Teton County Engineer Department and the Wyoming Department of Environmental Quality to install and monitor a demonstration project provides us with the jump-start we have needed. Our background in wetland construction, water quality monitoring and research make us well qualified to take on this type of technical project and partner with the Teton Conservation District.

Sincerely,

Katie Salsbury
Owner/Vice President

85 S. Main P.O. Box 1115 Driggs, ID 83422 phone 208.354.3690 fax 208.247.0941
www. intermountainaquatics.com

Sent Via Email to Brian Remlinger, Intermountain Aquatics

From: reynolds pomeroy [mailto:reynoldsp@bresnan.net]
Sent: Thursday, June 11, 2009 10:29 AM
To: 'Brian Remlinger'
Subject: RE: Residential treatment wetland

Hi Brian:

Bettie and I have thoroughly reviewed the materials you have supplied regarding the Residential Treatment Wetland demonstration project and we are very excited to have been included in this opportunity.

After reviewing the draft 1% for the Tetons grant application, we are comfortable with the landowner's cost-share portion of $4,321 as presented. We understand there are a number of contingency line items anticipated for repair, retrofitting, solar opportunities, etc. and we will keep an open mind to the ramifications they may have on the budget beyond the initial landowner cost-share amount proposed.

Please let us know if you need any further indication from us regarding our commitment to participate in this project.

Sincerely,

Reynolds & Bettie Pomeroy

Sent Via Email to Brian Remlinger, Intermountain Aquatics

From: Brough, James [mailto:jbroug@wyo.gov]
Sent: Tuesday, June 02, 2009 1:08 PM
To: Brian Remlinger
Cc: Stueckler, Hannes; Ray Shriver
Subject: RE: Teton County Residential Treatment Wetland

Brian,

DEQ has been adequately informed regarding proposed residential subsurface flow treatment in Teton County. Teton County has a delegation agreement with DEQ which authorizes Teton County to perform the review and permitting for residential small wastewater treatment systems. Thus, DEQ anticipates that Teton County will take the lead in reviewing and permitting the said residential subsurface flow treatment system. It has been DEQ's policy to participate in joint reviews with the county of septic systems which cannot be classified as conventional septic tank and gravity flow leachfield systems.

James S. Brough, P.E.
Northwest District Engineer
Water Quality Division

510 Meadowview Drive
Lander, WY 82520
307-335-6961 (office)
307-332-7726 (fax)
james.brough@wyo.gov

Sent Via Email to Brian Remlinger, Intermountain Aquatics

From: Ray Shriver [mailto:rshriver@tetonwyo.org]
Sent: Tuesday, June 02, 2009 2:21 PM
To: Brian Remlinger
Cc: Stueckler, Hannes; Brough, James
Subject: RE: Teton County Residential Treatment Wetland

Brian

Your proposal to construct a wetland wastewater treatment facility in Teton County WY is both exciting and timely. Alternative methods of wastewater treatment resulting in higher quality effluent are encouraged. I foresee no issues or circumstances that would preclude the issuance of a Teton County Small Wastewater Facility permit for the proposed wetland treatment facility.

Ray Shriver
County Sanitarian