Box 792, Traverse City
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WastewaterEducation.org

Wastewater Education
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Tax ID#:20-0042087
[IRS: Northwest Michigan Onsite Wastewater Task Force]

Service Providers

1. Need for comprehensive, relevant and affordable training curriculum for service providers based on existing established operation and maintenance curriculums.

2. Need for regional field site training to develop and provide continuing education for practical skills based on local soil conditions.

ACTIONS: 1

i. Set an affordable 'per hour per CEU' or pay by the class - fee with the option to vary fees for later courses that might entail additional expenses.

ii. Publicize a 40 CEU hour program - (24 class/ 16 in field) This will be created modeled on existing O&M Service Provider, Installer and Inspector courses. First 6, 2 hour courses:

   a. pump controls, pump chambers, pumped systems.
   b. Preparing for the first visit to a site (pre-visit information gathering, ingress, egress, vehicle control, landscaping).
   c. How to safely service and clean a conventional septic system and establish an Environmental Health And Safety Policy.
   d. Inspecting mounds and low pressure systems.
   e. Site safety - physical conditions, MIOSHA requirements, personal hygiene, educating the client.
   f. Site recording skills and tools, GPS, GIS mapping, reporting sheets (to be followed by a field course of using hand held GPS devices and basic laser leveling techniques - see next point)

ACTIONS: 2

i. Provide regionally accessible field courses.

ii. Create working relationships with other providers. i.e vendor specific.

iii. Continued >

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Service Providers

2. *Continued:*
   Need for regional field site training to develop and provide continuing education for practical skills based on local soil conditions.

ACTIONS: 2

iii. Coordinate training opportunities through our professional memberships and affiliations
   a. Water Environment Research Foundation
   b. National Onsite Wastewater Recycling Association
   c. National and MI Environmental Health Association
   d. Water Environment Federation and MI affiliate.
   e. Consortium for Decentralized Wastewater Technologies
   f. National Environment Science Center at West Virginia University.
   g. Rural Community Assistance Program
   h. Michigan Rural Water Association.
   i. National Sanitation Foundation.

3. Need for affordable and accessible training for all MI and surrounding states.

ACTIONS: 3

i. Utilize internet based teaching in conjunction with Local Health Department intranet service to provide individual online and classroom access.

ii. Establish acceptance of online CSE courses and tests

iii. Establish similar agreement with surrounding Great Lakes States.

iv. Approach adjacent states associations and national entities to reciprocate by streaming courses here.

4. Need for timely and retrievable documentation of continuing education credits earned.

ACTIONS: 4

i. Continue to track and retain attendance information for all courses we provide possibly in partnership with NOWRA.

ii. Offer to provide this service to MDNRE, MSTA and NAWT

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Service Providers

5. Lack of respect for service providers or their capacity to understand complex topics.
6. Lack of public understanding of their profession and the regulations governing them.

ACTIONS: 5 and 6

i. Invite and include service providers to all events regardless of perceived relevance.

ii. Engage in public information/outreach activities which demonstrate the environmental professionalism of service providers

iii. Seek funding and sponsorship for this in partnership with area service providers.

7. Gap in accessible training for Portable Restroom Operators. Need for PRO business service/ marketing training.

ACTIONS: 7

i. Contact Cole Publishing to showcase articles and training sources from PRO magazine

ii. Contact Portable Sanitation Association to offer their Certification Program.

iii. Offer basic business management, marketing and office technology courses both online and via Health Department Intranet.

8. Need for regular legal updates: establishing Responsible Management Entities; forming community associations; Part 41; cluster Operator Certification; liability law; contracts and insurances.

ACTIONS: 8

i. EPA RME Voluntary Guidelines - ask for EPA Region 5 assistance plus utlize the expertise of our Technical Consultant Dr. Richard Otis.

ii. Collaborate with MDNRE re rules governing certified operators and Part 41 guidance.

iii. Utilize Small Flows Clearing House and Cole Publishing.

iv. Utilize MIOSHA. Offer to webcast their courses and refine for onsite relevance.

v. Locate attorney with experience in establishing community associations and master deeds, liability and escrow considerations - See Also Under Public Outreach

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Service Providers

9. Need for regular updates on servicing or inspecting proprietary technology.

ACTIONS: 9

i. Contact vendors to provide course material and instruction - online and in field, by process first then by individual vendors.

ii. Minimum 1-2 per month: to cover why this technology is suitable for this site, pros and cons, best management practices for operation and servicing, costs of installing and running system, expected life span. etc.

OUTCOMES

- Acceptance of affordability, accessibility and interactive nature of distance learning for this segment of the wastewater profession and industry.
- A significant increase in the total number of wastewater individual and small system service providers taking and maintaining continuing education courses.
- An increase in the quality and relevance of service provider skills.
- A standardized skill set expectation.
- Universally accepted curriculum content (by regulatory agencies in MI also contiguous Great Lake States).
- Consistently available proprietary technology education - a first for this region.
- Courses will become self financing
- Public at large will gain a thorough understanding and appreciation of the professional skills necessary to provide wastewater sanitation services.
- Greater cooperation and collaboration between local, state and national regulators and professional entities.

IMPACT

- Creation of standardized education requirements for all those installing, servicing or operating individual or small community wastewater systems: based on regional conditions, prevailing technologies and local health codes.
- A public, and local government, acceptance of the affordability and environmental health protections provided by appropriate wastewater systems.
- A general acceptance that individual or small community wastewater systems should be managed as an integral component of regional services.

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Engineering and Regulatory Community

1. Need to increase local knowledge of advances in decentralized systems technology and their management, both in the US and internationally.
2. Need to enable access to knowledge convenient, interactive, relevant and affordable both in terms of time and cash.
3. Need to overcome barriers to engineers promoting affordable decentralized options to communities
4. Need for a reference document/ seminar on similarities/differences among the regions Health Departments. i.e. a "Crosswalk" of code differences.

ACTIONS

i. Master Class Seminar/Symposium Series: in blocks of 4 (2 hour blocks to include Q&A) as a subscription series, CEU credit eligible for both CSE's and Operator CEU's.

ii. Utilize our web based distance learning license to provide group/individual access to knowledge and expertise.

iii. Ask environmental engineering community to contribute interviews, case studies, slide shows for webcasting, podcasting, and our online media.

iv. Ask environmental engineering community to contribute to Public Service Announcements at topical times such as Groundwater Awareness Week, Earth Day, World Water Day - both radio, TV and print.

v. Offer print-on-demand papers and presentations.

vi. Devote seminars to local issues relevant to The Grand Vision ie. grey water reuse.

vii. Coordinate training opportunities through our professional memberships and affiliations

   a. Water Environment Research Foundation
   b. National Onsite Wastewater Recycling Association
   c. National and MI Environmental Health Association
   d. Water Environment Federation and MI affiliate.
   e. Consortium for Decentralized Wastewater Technologies
   f. National Environment Science Center at West Virginia University.
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Engineering and Regulatory Community

OUTCOMES

- Acceptance of affordability, accessibility and interactive nature of distance learning for this segment of the wastewater profession and industry.
- Consistently available proprietary technology education - a first for this region.
- Courses will become self financing
- Creation of a regional decentralized wastewater engineering advisory and review committee for this organization.
- An increase in the participation of local engineers to act as advocates for the decentralized option.
- Greater participation in our Blog, listserv and social media sites by area engineers and anyone with a technological interest.
- Greater integration of education for other professional bodies
- Greater cooperation and collaboration between local, state and national regulators and professional entities.

IMPACT

- Acceptance of the affordability and environmental health protections provided by appropriate individual and small community wastewater systems.
- A general acceptance that individual or small community wastewater systems can be managed as an integral component of regional services.
- Tighter integration of affordable and less environmentally intrusive wastewater systems with community planning.

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Municipalities

1. Need to overcome perceived barriers to considering decentralized options.
2. Lack of publicized good case studies relevant to northern states.
3. Need to demonstrate Responsible Management Entities as a utility service.
4. Need to overcome local inability to access good community planning tools i.e integrated water resource/land use planning.
5. Need for affordable planning and zoning training i.e currently not at convenient times or locations plus expensive to send people.
6. Lack of good funding/financing models and/or lack of information on innovative options.
7. Lack of independent review body - to provide an impartial cost/benefit analysis of engineering proposals for small community RFP's
8. Gap in knowledge of IRM - Integrated Resource Management - i.e linking water/energy/ WWTP/ using waste to generate energy and power closed loop systems.
9. Lack of knowledge of who we are and what we do.

ACTIONS

i. Utilize our web based distance learning license to provide group/individual access to knowledge and expertise.

ii. Provide Planning and Zoning courses at and resources at more affordable rates and accessible at local facilities.

iii. Host a Responsible Management Entity seminar featuring successful and unsuccessful community projects.

iv. Provide a tabletop 'planning for wastewater' exercise for municipal officials both on location and online to show cost/benefits of integrating small community system options.

v. Partner with WERF and NOWRA to publicize the level of real life research that has been published recently and cost analysis tools.

vi. Provide U of MN Small Community Planning for Wastewater Service course via distance learning. (This includes a segment on how to write an RFP and how to chose a consultant) approach MTA and MML to support this program.)

vii. Ask EPA, USDA, MTA and MEDC to partner in an online seminar, recorded for future free access, on options for affordable financing for individual/ cluster and small scale systems. Most rural communities don't qualify and can't afford SRF.

viii. Seek qualified PE's to form a 'project review' team.

ix. National Master Class Seminar Series featuring topical subjects with nationally recognized speakers as a Subscription series.- Ask speakers to donate or discount their usual speaker fee - this will be the basis of seeking sponsorship.

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Municipalities

OUTCOMES

- Acceptance of affordability, accessibility and interactive nature of distance learning for wastewater planning.
- Consistently available proprietary technology education for municipalities.
- Creation of a regional decentralized wastewater engineering advisory and review committee.
- Greater integration of wastewater education for other municipal entities.
- Greater cooperation and collaboration between local, state and national regulators and professional entities to assist local units of government to pursue compliance.
- Avoidance of duplication of effort and services at a time of shrinking municipal budgets.
- Creation of an alternative small community/ individual system block grant financing vehicle modeled on the ShoreBank not for profit financing institution.
- Support by State elected representatives.

IMPACT

- Acceptance of the affordability and environmental health protections provided by appropriate individual and small community wastewater systems.
- A general acceptance that individual or small community wastewater systems can be managed as an integral component of regional services.
- Tighter integration of affordable and less environmentally intrusive wastewater systems with community planning.
- Understanding by local elected and appointed officials that appropriate individual and small community wastewater systems, and their management, can be an affordable and politically acceptable option if done so using current expertise and good case studies.
- A more equitable distribution of available funding to rural communities based on need, appropriate design and long term financial viability.

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Partners

1. Need to overcome barriers to partnership - that wastewater management IS watershed/ groundwater/surface water quality management - at both local, state and national environmental organization level.
2. Need to promote cooperative applications for funding - especially with entities covered by the EPA Memorandum of Understanding for Decentralized Options.
3. Need to overcome exclusivity nonprofit practices. Promote potential beneficial, complimentary partnerships rather than competition.
4. Need to dispel the perception that wastewater systems pollute.

ACTIONS

i. Invite environmental groups to share our web based seminar/distance learning license to provide group/individual access to knowledge and expertise.

ii. Continue to propose cooperative, collaborative projects emphasizing the development advantages of such partnerships

iii. In any funding application - list the organizations we have asked to partner and their response.

iv. Continue to promote the environmental solutions of sound wastewater practices to negate the 'bad apples' image.

v. Promote mediation and conflict resolution as a means to resolve environmental issues of contention.

vi. Partner with National Wildlife Federation - Healing Our Waters Coalition (we are members) Great Lakes Stewardship program, EPA WaterSense (we are Partners), Circle Of Blue, etc. and propose a Blue~Green membership exchange - to increase overall membership - a 'United Way for local environmental groups'.

vii. Invite statewide representatives of the EPA Memorandum Of Understanding to a round table goal setting meeting.

viii. Invite area elected representatives s to a 'meet our organization lunch'.

ix. Send out a request for partners on specific topics.

x. Re-energize the RxTeam.

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Partners

OUTCOMES

- Acceptance of wastewater education and use of appropriate technologies as part of environmental protection.
- Avoidance of duplication of effort and services at a time of shrinking environmental non profit budgets.
- Acceptance of affordability, accessibility and interactive nature of distance learning for environmental partnerships, program planning and public programs.
- Greater cooperation and collaboration between local, state and national professional entities to pursue sustainable community planning.
- Support for creation of an alternative small community/ individual system block grant financing vehicle modeled on the ShoreBank not for profit financing institution.
- Recognition of the link between land use, water consumption and energy generation.
- Recognition of the professional expertise we collectively bring to the table.

IMPACT

- Acceptance of the affordability and environmental health protections provided by appropriate individual and small community wastewater systems.
- A general acceptance that individual or small community wastewater systems can be managed as an integral component of regional services.
- More comprehensive, larger, successful funding proposals that combine science, technology and environmental solutions.
- Restore trust in the wastewater profession.
- Create a climate where wastewater funding proposals are viewed favorably as being of benefit for individuals, communities, economic development and the environment - the Triple Bottom Line.

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Public Outreach

1. Need to overcome pervasive lack of public understanding of what an 'onsite wastewater system' is, how it functions, how to care for one, what their individual responsibility is, how an onsite system functions in the same manner as a wastewater treatment plant.
2. Need to provide education on the relationship between proper system operation and maintenance and water quality protection.
3. Need to provide education on the link between excessive water use, damage to onsite system performance and increased energy consumption.
4. Need to motivate press and local media coverage of advancements in wastewater rather than just horror stories.
5. Need to combine the many reputable science resources for school and adult students.
6. Need to compile a reference resource for anyone seeking financing options.
7. Need to increase public awareness of the services we provide.

ACTIONS

i. Coordinate public programming in conjunction with topical, timely events such as: the Home Builders Expo, Habitat For Humanity, environmentally significant dates such as Earth Day, Groundwater Awareness Week, Wetland Protection Month etc.

ii. Create local, state and national partnerships for joint programming and media advertising. Feature stories emphasizing science not editorializing.

iii. Create programming of value to small communities, at convenient times and locations and at affordable or no cost to the participants, onsite and online.

iv. Create local media supporter network.

v. Increase local networking lists for email, social networking, FAX or mailings.

vi. Secure underwriters for regular monthly news features and TV/Radio Public Service Announcements.

vii. Work with LIAA to create content for public access TV.

viii. Propose an online water professions 'career/mentoring' event - where high school students meet and talk with young environmental professionals.

ix. Promote the water industry as a potential career for women.

x. Promote our web site, podcasts, webcasts, public presentations.

xi. Create enjoyable, entertaining events that combine education and fun.

xii. Repeat "All The Water" and refine that curriculum - secure an Australian co-partner.

xiii. Partner with an attorney with experience in establishing community associations and master deeds.

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Public Outreach

OUTCOMES

- Acceptance of individual and small community decentralized wastewater systems and use of appropriate technologies as part of environmental protection.
- Acceptance of affordability, accessibility and interactive nature of distance learning for public programs.
- Recognition of the link between land use, water consumption and energy generation.
- Recognition of the professional expertise we collectively bring to the table.
- Increased awareness of how environmental health regulations are structured and enforced and with what rationale.
- Increased awareness of available system options, comparative costs, tangible and intangible benefits.
- Increased awareness of the cost/value of clean water even in 'water-rich' regions.

IMPACT

- Acceptance of the affordability and environmental health protections provided by appropriate individual and small community wastewater systems.
- A general acceptance that individual or small community wastewater systems can be managed as an integral component of regional services.
- Restore trust in the wastewater profession.
- Create a climate where wastewater funding proposals are viewed favorably as being of benefit for individuals, communities, economic development and the environment - the Triple Bottom Line.
- That an educated public will have access to a knowledge base and analysis tools to properly evaluate proposed wastewater systems.
- That an educated public will be empowered to serve on local elected and appointed boards and units of government.

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Organization Development And Sustainability

1. Establish Stable Revenue Stream
2. Diversify Income Sources.
3. Address future expansion for staff and facilities.
4. Maintain Board Development and Board training
5. Address Organization Status Enhancement
6. Establish Development Support Team.

ACTIONS

i. Increase staff: Executive Director and hire an Executive Assistant.

ii. Write an Executive Director Succession Plan: i.e a contingency policy for transfer of all the documentation, records, credit cards and organization passwords and equipment to interim or future staff.

iii. Continue to utilize cost effective strategy of using existing health department facilities and web based job performance.

iv. Continue 3 year long range and strategic planning: review the status of goals and performance at the half way point in each fiscal year.

v. Adhere to stringent Board oversight.

vi. Regularly review Board 'expectation of responsibilities and conflict of interest policy' to assist in promoting the organization at all times.

vii. Hire a fee-for-service Federal grant writer and administrator for grants reporting.

viii. Create a Fund Raising Volunteer Committee to coordinate a planned giving campaign to secure 1/3 of annual operating budget.

ix. Create public and professional services and programming that generate 1/3 of annual operating budget.

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Organization Development And Sustainability

OUTCOMES

- Recognition of the professional expertise we collectively bring to the table.
- Increased opportunity for us to secure funding for onsite wastewater education programs for environmental health agencies.
- Increased support for, and awareness of, this organization's Mission.
- Stable source of operating income.
- Generate respect for this organization.
- Maintain Board composition balance and good humor.

IMPACT

- Create a climate where Wastewater Education funding proposals are viewed favorably as being of benefit for individuals, communities, economic development and the environment - the Triple Bottom Line.
- Restore trust in the wastewater profession.
- Creation of an educated public who will have access to a knowledge base and analysis tools to properly evaluate proposed wastewater systems.
- Creation of an an educated public who will be empowered to serve on local elected and appointed boards and units of government.
- Establish this organization as an integral contributor toward rural community development in northwest Michigan.
- Realize the creation an established structure for training, certification, licensing and continuing education for all sectors of the onsite wastewater profession.

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