

**Environment and Natural Resources Trust Fund  
2018 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 164-E**

Phase II- Reduce Solid Waste and Greenhouse Gas Emissions

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**Category:** E. Air Quality, Climate Change, and Renewable Energy

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**Total Project Budget:** \$ 1,151,931

**Proposed Project Time Period for the Funding Requested:** 2 years, July 2018 to June 2020

**Summary:**

This project will: expand strategies of the 2015 LCCMR grant; establish deconstruction and building material reuse as a practice statewide; document the environmental, health, and economic benefits of material reuse.

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**Sponsoring Organization:** The NetWork for Better Futures (D/B/A) Better Futures Minnesota

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**Location**

**Region:** Statewide

**County Name:** St. Louis

**City / Township:** TBD

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**Alternate Text for Visual:**

Better Futures Info-graphic summarizes the significant outcomes from Phase I of this project. It also outlines the projected outcomes of Phase II, expanding deconstruction and material reuse throughout Minnesota.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	_____ %



**Environment and Natural Resources Trust Fund (ENRTF)**

**2018 Main Proposal**

**Project Title:** Phase II- Reduce Solid Waste and Greenhouse Gas Emissions

**I. PROJECT STATEMENT**

This project will establish the reuse and recycling of building materials as a preferred practice statewide.

This proposal builds on and expands the strategies that were developed with a 2015 LCCMR grant award. The pilot phase of this project tested the viability of deconstruction as a sustainable alternative to demolition. The outcomes from the 2015 LCCMR grant included: 1,650 tons of waste diverted from landfills; 3,435 tons of CO<sub>2</sub> emissions averted; 11 FTE jobs for chronically unemployed people created; and a marketplace for reclaimed materials established.

The second phase of this endeavor intends to: educate policymakers, building inspectors, homeowners, and contractors statewide about the value and techniques of deconstruction; deconstruct more buildings statewide; develop additional metrics to measure the benefits and impact of deconstruction; and, establish partnerships with (3) counties, (1) Tribe, and (6) municipalities to establish deconstruction as a preferred, common practice.

Building material stewardship is essential because the current practice of burying 70% of the State’s building waste in landfills is not sustainable. Viable alternatives to dumping construction and demolition waste are needed to avert the serious health, financial, and environmental costs of landfill use. For example, 42 construction and demolition landfills in the State are leeching contaminants into our groundwater. Data from the pilot phase of this project shows every ton of building material buried in landfills emits 1.12 metric tons of carbon dioxide (CO<sub>2</sub>), versus .13 metric tons of CO<sub>2</sub> per ton from deconstruction.

A much cleaner alternative is deconstruction, the process of taking apart a building in a methodical manner to preserve materials. On average, 86% of all building material from deconstruction projects is diverted. This alternative practice is capable of achieving net zero emissions and reduces significantly the leeching of harmful chemicals. Deconstruction generates 150% less CO<sub>2</sub> emissions than throwing away a building.

The goals for this project are:

- (1) Implement building material stewardship practices in at least (3) counties, (1) Tribe and (6) municipalities;
- (2) Develop sustainable practices related to deconstruction and reusing building materials statewide;
- (3) Document the environmental, health, and economic benefits of building material reuse.

The activities are:

- (1) Provide technical assistance and incentives to (3) counties, (1) Tribe and (6) municipalities to adopt practices;
- (2) Promote and establish deconstruction techniques and material reuse/recycling strategies statewide;
- (3) Develop additional impact metrics and document the multiple benefits of material reuse and deconstruction.

This project is expected to divert at least 4,500 tons of waste, reduce CO<sub>2</sub> emissions by 4,680 metric tons, and support 10 FTE jobs.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1: Assist counties, Tribes, and municipalities with adopting reuse practices**

**Budget: \$ 342,591**

Establish partnerships; provide technical assistance; help implement viable deconstruction practices; develop financial incentives to encourage material stewardship in local communities; initiate material stewardship planning with State agencies

<b>Outcome</b>	<b>Completion Date</b>
1. Three counties and one Tribe implement deconstruction practices for projects	6-30-2020
2. Six municipalities test financial incentives to encourage deconstruction and reuse	6-30-2020
3. One State agency adopts building material stewardship standards for agency projects	6-30-2020



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**Activity 2: Promote deconstruction and reuse/recycling practices statewide**

**Budget: \$ 582,612**

Deconstruct public or Tribal-owned properties; test techniques for diverting material at job sites; certify managers and employ workers; test diversion tactics at landfills; promote deconstruction and reuse among homeowners, policymakers, and contractors

Outcome	Completion Date
1. 30 publically-owned buildings are deconstructed and impact data generated	6-30-2020
2. On-site reuse and recycling techniques are tested at 10 job sites	6-30-2020
3. Waste diversion techniques are tested at two construction and demolition landfills	6-30-2020
4. 10 FTE jobs for chronically unemployed people are maintained during the project	6-30-2020
5. 10 managers and supervisors are trained and certified as deconstruction specialists	6-30-2020
6. Deconstruction and reuse is promoted at 50 community, Tribal, and government gatherings statewide (i.e. trade shows, city councils, county boards, State and county fairs)	6-30-2020

**Activity 3: Measure the environmental, economic, and health benefits**

**Budget: \$ 226,728**

Create formulas for measuring economic and health benefits; assist Tribes and government agencies with calculating impact and benefits

Outcome	Completion Date
1. Methods for measuring the economic and health impact of deconstruction are created	6-30-2020
2. Environmental, health, and economic impact of every job and project are calculated	6-30-2020
3. Net zero emissions for 50% of this project’s deconstruction jobs is achieved	6-30-2020

**III. PROJECT STRATEGY**

**A. Project Team/Partners**

This project team includes Better Futures Minnesota (Minneapolis), the Natural Resources Research Council (University of Minnesota Duluth), Hennepin County, St Louis County (invited), Beltrami County (invited), and the Northwest Indian CDC (Bemidji). Better Futures will serve as the project manager, deconstruct properties, and take the lead on outreach to counties, Tribes, and municipalities statewide. NWICDC will deconstruct properties and help to test job-site diversion techniques. The NRRI will develop new metrics and measure the health, economic, and environmental data for the project. The counties are expected to adopt a building material reuse practices for county projects and help municipalities implement reuse practices.

**Partners Receiving ENRTF Funds:** Better Futures Minnesota; Northwest Indian CDC; Natural Resources Research Institute; Hennepin County Environment and Energy. (St Louis and Beltrami counties will receive funds if they accept our invitation to participate). Partners will contribute in-kind support and/or funds from other sources.

**B. Project Impact and Long-Term Strategy**

By adopting deconstruction and material reuse on a broad-scale, Minnesota will achieve significant reductions in greenhouse gas emissions and other pollutants, reduce the amount of waste buried in landfills, and increase the amount of materials reused. Long term, deconstruction is a financially sustainable line of business which creates new jobs and the growth of small, local businesses.

**C. Timeline Requirements**

In year one, deconstruction work and outreach is expected to engage three counties, six municipalities, and one Tribe. Partnerships will be established with several landfills. In year two, new practices will be adopted statewide and the environmental, health and economic impact of this project will be documented.

## 2018 Detailed Project Budget

**Project Title:** Phase II-Reduce Solid Waste and Greenhouse Gas Emissions

### IV. TOTAL ENRTF REQUEST BUDGET for Two Years

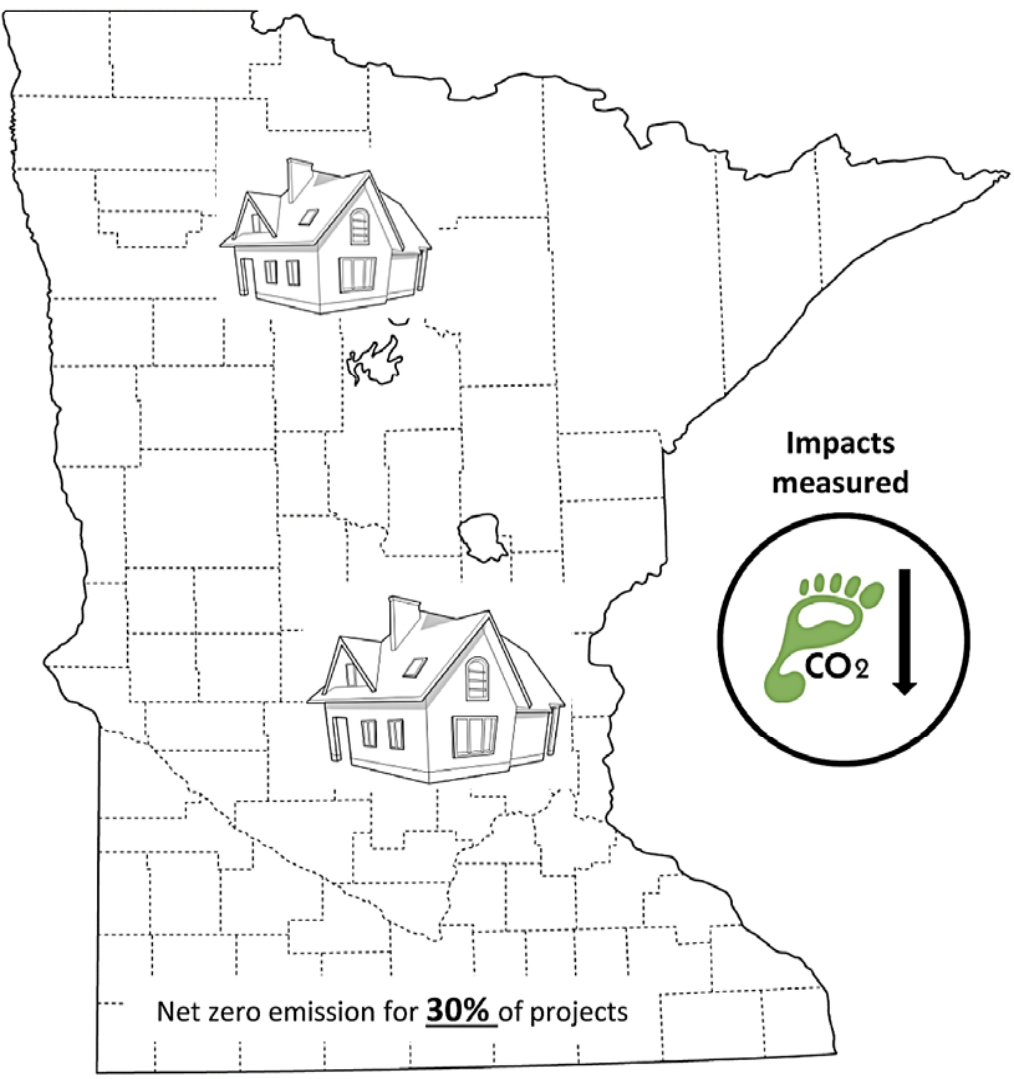
BUDGET ITEM	AMOUNT
<b>Personnel:</b> Project Manager: \$83,640 (81% wages, 19% benefits); .4 FTE each year for 2 years BFM Business Manager: \$32,500 (72% wages, 28% benefits); .5 FTE each year for 2 years BFM Work Crew: \$222,567 (72% wages, 28% benefits); 2.7 FTE each year for 2 years BFM Crew Chief: \$51,168 (81% wages, 19% benefits); .5 FTE each year for 2 years NWICDC Deconstruction Director: \$143,270 (81% wages, 19% benefits); 1 FTE each year for 2 years NWICDC Work Crew: \$111,283 (72% wages, 28% benefits); .25 FTE each year for 2 years BFM/NWICDC Presort Crew: \$18,547 (72% wages, 28% benefits); .4 FTE each year for 2 years NWICDC Work Crew Chief: \$26,496 (72% wages, 28% benefits); .25 FTE each year for 2 years	\$ 721,971
<b>Professional/Technical/Service Contracts:</b> Consultant to calculate the health, social, and environmental benefits of this project and the Social Return on Investment (SROI). Along with documenting the environmental and social benefits for this work, new data would be collected about the impact of material reuse on people's health, and on land, air and water quality.	\$ 60,000
<b>Equipment/Tools/Supplies:</b> Hand and power tools and personnel safety equipment; tool belts for workers, starter supply of power and hand tools for NW OIC workers, replacement small tools for both agencies; hard hats, vests, eye protection, gloves, and steel inserts for boots. Specific costs and exact items to be determined.	\$ 7,500
<b>Travel:</b> Site visits and meetings between NWICDC (Bemidji), NRRI (Duluth), and BFM (Mpls). Hotel/Motels at \$180 a night and \$68 food allowance (per IRS per diem rate) for 20 trips.	\$ 12,460
<b>Additional Budget Items:</b> \$150,000 for NRRI (staff and consultants to complete economic, health and environmental analyses) and \$200,000 for Hennepin, St Louis (invited), and Beltrami (invited) counties to provide financial incentives for municipalities	\$ 350,000
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 1,151,931</b>

### V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
<b>Other Non-State \$ To Be Applied To Project During Project Period:</b> Hennepin County (\$100,000), Better Futures MN (\$100,000 from foundations and earend revenue), NWICDC (\$50,000 from foundations)	\$ 250,000	<i>Pending</i>
<b>Other State \$ To Be Applied To Project During Project Period:</b>	\$ -	<i>N/A</i>
<b>In-kind Services To Be Applied To Project During Project Period:</b>	\$ -	<i>N/A</i>
<b>Past and Current ENRTF Appropriation:</b> Better Futures and its partners received an ENRTF appropriation in 2015	\$ 845,000	Less than \$350,000 of this grant is legally obligated
<b>Other Funding History:</b> Hennepin County Environment and Energy 2016-2017 Contract	\$ 405,000	<i>Secured</i>

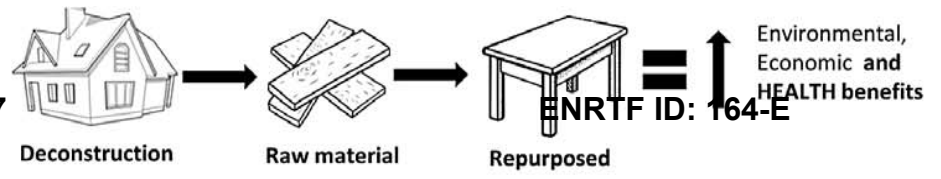
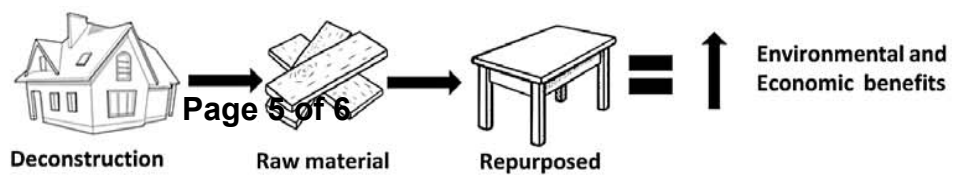
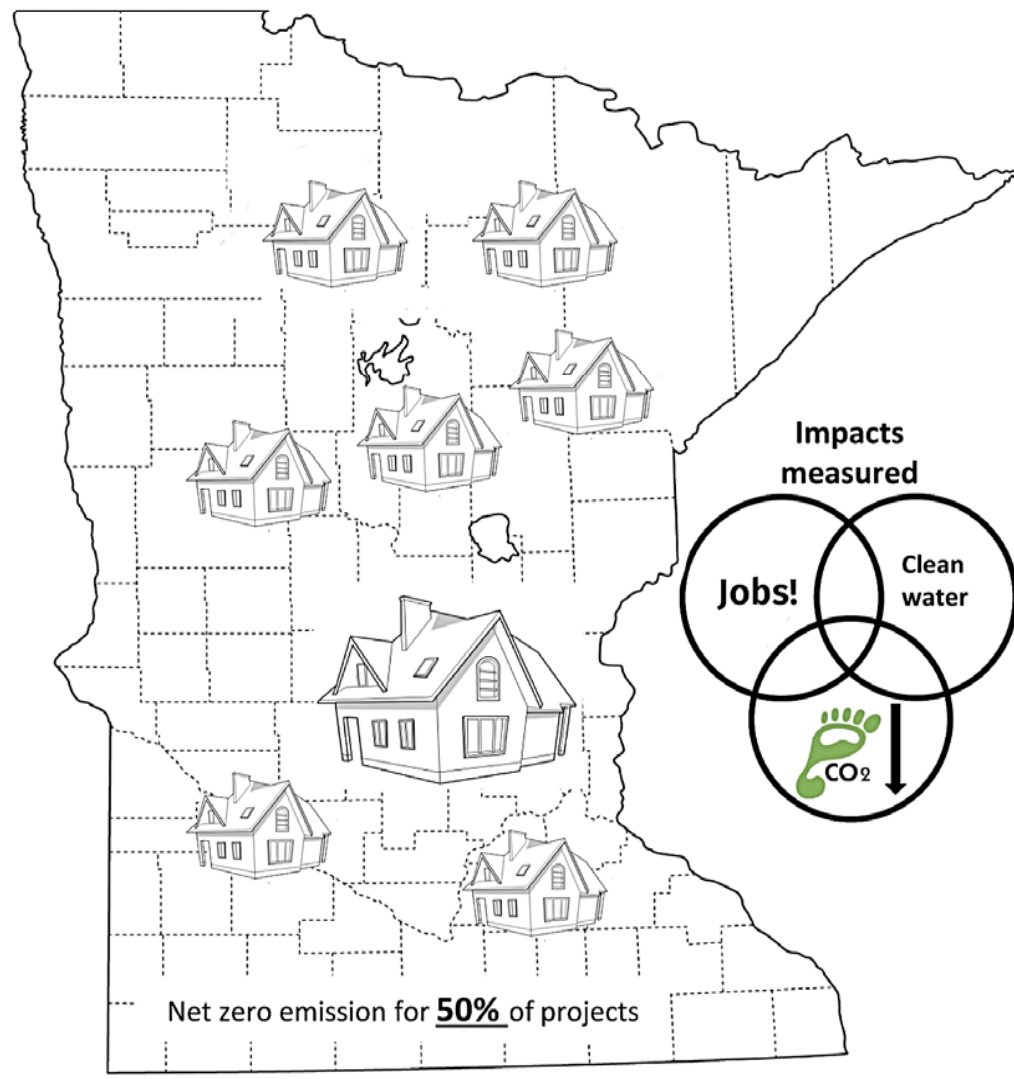
# Phase I - Test and Develop Techniques: 2016-2018

- Built 2 marketplaces for used material
- Tested deconstruction techniques
- Built furniture
- Created jobs!



# Phase II - Expansions of Techniques and Practices: 2016-2018

- Expand marketplaces statewide
- Test diversion techniques at landfills
- Establish reuse/recycling as an alternative
- Create jobs *and businesses*



07/31/2017

ENRTF ID: 164-E

## **Project Manager Qualifications and Organization Description**

This LCCMR project will be managed by Nick Swaggert, Better Futures' Vice President for Business Operations. Swaggert has served in this role since 2016. His professional career includes various roles in the private sector where he focused on logistics, sales, and business development. He helped lead a not for profit agency that assists veterans with transitioning into the civilian workforce. He also served as an enlisted infantry Marine until he was selected to become a commissioned Marine officer. He currently serves as a Company Commander (Major) in the Marine Corps Reserves.

As the Project Manager, Swaggert's duties will include:

1. Organize and shepherd the partnership, including managing contracts with each partner, establishing and monitoring work plans with each partner, and hosting monthly video meetings and quarterly face-to-face meetings with partners.
2. Develop and operate a statewide education and outreach campaign
3. Engage 3 counties (Hennepin, St Louis (invited), and Beltrami (invited) and at least 6 municipalities to implement reuse/recycling practices statewide
4. With the NRRI and the Northwest Indian CDC, promote deconstruction services and materials, and the environmental benefits of this approach through relations with homeowners, contractors, policymakers, trade groups, trade shows, social media, and web pages
5. Take the lead on drafting model policy and incentive options for Tribal, local, county and State government agencies to consider
6. Oversee the testing on diversion tactics at landfills and job sites in at least two Greater MN counties
7. Deconstruct at least 30 publically-owned properties statewide
8. Document the environmental, health, and economic impact of the work completed during this project

Better Futures Minnesota fuels the aspirations of at-risk men who want to change their lives and lifestyle. This enterprise also works to change policies that lock people out of society and lock them into perpetual cycles of violence, unemployment, homelessness, and incarceration. This innovation responds immediately to participants' two most basic needs—safe, decent, affordable housing and a job. Once these basic needs are met, the value and impact of other services accelerates.

Better Futures' integrated care model consists of four fundamentals: housing, jobs, health, and life coaching. These components are anchored by meaningful relationships and a vibrant community. This community offers an alternative culture and enables at-risk adults to forge new attitudes. Transitional employment is a core feature of Better Futures' care model. Better Futures operates business enterprises which create immediate employment opportunities, generate revenue, provide training and marketable skills, and help people become ready to work in the private sector.

Workers are employed in four lines of business: property maintenance, janitorial services, appliance recycling, and building deconstruction and the reuse of materials. These businesses generate multiple benefits: they offer employment, on-the-job training, and income for workers; the ventures contribute earned income to Better Futures; and, the businesses produce significant social, economic, and environmental benefits for the community.