

Answer Examples: Question 1

This document is to help structure your answers for Materials Management grant application Question 1. Project Description and its sub questions concerning a) the environmental needs addressed in the project or plan, c) the project goals and the project or plan measurements to achieve the outlined goals. This document is structured by sub questions and multiple answer examples are provided by subject matter. This is for guidance only to help facilitate the grant application process and the development of critical answers.

Question example types in this document

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Question 1. Project Description a) Environmental Needs Does it address economic and environmental needs as well?

Food Waste Prevention answer example

The County seeks to reduce the amount of food and solid waste produced by using milk cartons and single-use items during school meal services. With **495,000 students**, milk cartons and single-use materials make up a significant portion of Marion County Schools' waste. More importantly, because schools often have to serve milk regardless of if students want it, serving milk in cartons can mean **up to 15 gallons of wasted milk/day**. However, schools that have switched to milk dispensers have seen decreases in wasted milk because students serve only what they want. After implementation, schools in Thurston County, WA saw a **decrease by 2-3 gallons/day**. Jefferson Middle School was observed throwing away 1 gallon of milk for every 120 cartons served. And in a survey of 23 schools in Marion County, schools reported over 1.6 million cartons were served in 17/18. If each of those schools wasted that same amount of milk, 13,500 gallons of milk would be wasted in a school year. **With milk production, processing, and transportation making about 96% of the overall environmental impact, it is important to reduce waste and conserve resources.**

Materials and Solid Waste Management Plan answer example

North Tillamook County is comprised of four small cities and a large unincorporated rural area. The industries are seasonal vacation home rentals, state park visitors, small shops serving local residents and tourists and farms. The transfer station must be large enough to manage the waste for a seasonal population, yet remain open year-round to serve residents and small businesses.

Changes to the current facility infrastructure are not allowed by the City of Manzanita, which has planning jurisdiction, without a new master site plan.

The facility now processes nearly 100% of the recyclable materials generated by businesses, households and visitors, sorting them into as many grades as is feasible to retain market value. Approximately 30% of the trash generated in the area is self-hauled to the transfer station (up from 19% in 2013, due to the introduction of a construction debris program.)

There is great interest in developing the remaining larger tracts of land into vacation rentals and second homes. Baby boomers are beginning to retire full time to homes in the area, increasing the year-round population. Nehalem Bay State Park, a very popular camping destination, has a significant number of additional campsites in its master plan. As the Portland area expands west



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into its urban growth boundary, it is not inconceivable that North Tillamook County could become a bedroom community for commuters.

The transfer station is operating at near-capacity and must plan for this growth. The transfer station would like to participate in **new product stewardship programs** as they become available, but must revise its site plan to accommodate new programs. The transfer station would be an excellent location for **repair clinics**, but cannot add facilities without a master site plan.

Education Project answer example

This project touches on all stages of the lifecycle of materials management: production, consumption and end-of-life management. The primary focus of the project is food waste prevention as well as educating the public on best practices for the consumption and end-of-life management of products at the Waste Center.

Farmers market vendors will also receive consultation sessions that will help them to make and design systems to ensure that their businesses are focused on the quadruple bottom line (People, Planet, Profit and Purpose). This project focuses on the outcomes listed in the 2050 Vision for Materials Management in Oregon report; that producers make products sustainably, that people live well and consume sustainably, and that products have the most useful life possible after discard.

Education and Outreach Efforts Project answer example

This project strives to create a more holistic and accessible system that encourages waste reduction, reuse and recycling. As more materials have been produced over time, the systems that manage them have become inadequate and inequitable. The constant contamination of our environment from insufficient waste management practices has serious implications for human health and beyond. However, with these challenges come opportunities. This project supports the priorities of the Materials Management program by focusing on helping people live well and consume sustainably, and by ensuring that materials are reused to get the most out of their potential shelf-life before being discarded or recycled appropriately. As stated in the Materials Management Program, “some consumers, particularly households with lower incomes and education, indicate that they want information on how to consume more sustainably but lack access to such information (p.19),” and this project will directly address this by providing resources and peer-led education in collaboration with low-income communities, based on their expressed interest.

This project will improve important data collection methodology, including data on greenhouse gas emissions, and it relates to additional DEQ goals of improving recycling collection opportunities, especially on multifamily housing sites. This issue was also identified in Metro’s 2017 Multifamily Recycling Report and is a specific goal of their 2030 Regional Waste Plan that we helped develop as a community partner. Overall, we want community members to understand sustainability in a way that is meaningful, applicable and actionable.

Question 1. Project Description c) Project Goals and Measurement. What are the goals of the project and how will the project success be measured? Describe if your outcome measurement tools are culturally responsive to the population to be served, such as describing strengths and challenges of the outcome measurement tools for the population.

Food Waste Prevention answer example

We will measure results from this project in a number of ways. First will be through the use of pre and post implementation audits. Before and after the materials have been installed, the County **will conduct waste, energy, and water audits**, as well as collect data on the number of students consuming milk. Waste audits will be done by using the County's conventional method. Energy audits will be done using Kill-a-Watt devices attached to milk carton refrigerators and milk dispensers. Water audits will be pulled from the school's utility bills. The County will work with the school's nutritional specialist and kitchen staff to collect the number of milk cartons and milk glasses purchased by students. These audits will provide the County with the ultimate measure of success because the data will show if the use of milk dispensers and durables have:

- 1) reduced wasted milk
- 2) reduced the volume of solid waste
- 3) reduced energy consumption and
- 4) increased the number of students consuming milk.

Second will be through the **use of school utilities and purchasing data**. In order to determine if the installation of these materials has saved schools money, it will be essential to work with the schools to obtain water, energy, waste, and materials purchasing costs. The County will ask for each school's data from the year prior to implementation and compare it to the year following implementation. The County's main focus will be on determining if the school can reduce their garbage fees by cutting back on the number of hauls required, but energy, water, and purchasing (from milk cartons and single-use dishes and utensils) data will also be compared.

Lastly, the County will measure the success of their educational messaging in three ways. One, by using **school's attendance numbers during school assemblies and presentations**. Two, by using schools' milk purchases to determine how **many students purchased milk** and were exposed to the educational messaging on the milk dispensers. And three, by **collecting samples of anecdotal data from students** during meal services before and after implementation. Staff will ask what they know about the importance of waste reduction versus recycling and document their answers.

In order to achieve these goals, the County will:

1. **Provide an informational** meeting on the project in late March. School district nutritional specialist, school principals, and administrators will be invited to attend. This will explain the benefits of the milk dispensers program, the application process, expectations from selected schools, and be a chance to answer any questions. We will also offer a tour of one of the schools in which we have already begun piloting this program.
2. **Open up an application process** in early April for schools to apply to receive milk dispensers and durables. **The County will select up to 15 schools by the end of April, with the priority being Title I schools.**
3. Conduct **pre-installment waste, energy, and water audits** from May until late June. The waste audits will be a one-day sample that includes a milk bucket at the breakfast/lunch room for students to empty milk that was not consumed. The waste from all the day's meal services will be collected then sorted and weighed for food, cartons, recyclables, etc. Energy audits will be a week-long sample conducted using an energy monitor attached to the milk carton refrigerators and water audits will be done using school's water bills.
4. **Develop** waste reduction **curriculum alongside teachers and staff** during the summer. **Install** milk dispensers at each school from July to August, before school has started.
5. Conduct **post-installment waste, energy, and water audits** from September to November, after school has begun.

6. **Implement waste reduction curriculum and signage** in the school once the milk dispensers have been installed.

Food Waste Prevention answer example

**For this 2020 cycle, DEQ would need more information about how they communicate with students and if there is a link with the community in which they are operating.*

The goal of this project is to reduce food waste generated by dining hall patrons by 20% or more by providing smaller plates. A 20% reduction in food waste generated by patrons would be reflected by the dish room receiving **120 gallons or less of food waste each day.**

Project success will be measured by the **amount of food waste collected in the dish room each day.** When patrons are done eating, all dishes and leftover food are deposited on a rotating dish rack that goes to the dish room. The dish room employees clear any excess food from plates before completing the cleaning and sanitizing process. The waste collected in the dish room will be measured and tracked daily before and during implementation of the project to monitor change in waste generation.

The current estimate for the daily average of dish room waste is 150 gallons. **If this project is successful, that amount will be reduced to 120 gallons or less of waste collected by the dish room each day.**

Food Waste Prevention answer example

The goals for the Food Too Good To Waste campaign are

- 1) to **raise awareness** about how much food is wasted and the impacts of wasted food;
- 2) to change attitudes and behaviors at the household level that results in **less wasted food;** and
- 3) to **improve the quality** of our RWP **resources** and messages around wasted food.

We will achieve those goals in two phases.

In Phase 1, we will recruit 100 households from the cities of Bend and Redmond to participate in a 6 week wasted food prevention challenge. Using provided scales and an online data entry system, participants will weigh and report on their weekly wasted edible food, using the first 2 weeks as their baseline. Over the next 4 weeks, a new tool will be introduced each week via email to help them prevent food waste: Smart Shopping: Shop with meals in mind; Smart Storage: fruit and vegetable storage tips; Smart Prep: Prep now, eat later; Smart Saving: "Eat First" sign and basket. These tools from the EPA FTGTW Toolkit are created as handouts, and will be adapted by designers to align with the look and feel of already existing RWP outreach and marketing materials. Households will be recruited from Bend & Redmond using local waste and recycling company bill inserts, posters, social media and neighborhood canvassing with door hangers. Participating households will receive weekly emails with tools and tips, as well as weekly raffle incentives that connect with the tools, for households completing that week's data entry.

In Phase 2, we'll take what we learned in our challenge and incorporate that into our messaging for delivery in a community-wide campaign. Using Community Based Social Marketing techniques, we'll return to the same neighborhoods with updated door hangers & send out updated bill inserts in Bend & Redmond. **These materials will be updated with local data and stories to compel people to access and utilize the tools that the challenge participants utilized in Phase 1.** We'll also be creating a print ad for each tool, as well as an overarching wasted food prevention message in both print and billboard, to be placed during the summer months. **We'll also have a corresponding social media presence and do outreach at Farmers Markets events.**

Project success will be measured based on achievement of the following objectives.

- **100 households recruited** to participate in the **6 week** wasted food challenge.
- **Over half of recruited households** complete the 6 week challenge.
- **Track measurable data** from the 6 week household challenge to utilize in Phase 2 of campaign.
- **Five or more success stories** generated from 6 week challenge and utilized in Phase 2 community-wide campaign and incorporated into RWP resources.
- **Local version of materials and tools** from EPA's FTGTW Toolkit developed and implemented in project execution and across our Rethink Waste Project (RWP) web site and social media as well as earned media and paid advertising. Deliverables will include links to web site pages and social media posts that illustrate implementation and copies of earned media and paid advertising.

Repair and Reuse answer example

**For this 2020 cycle, DEQ would need more information about how they communicate with the community in which they are operating.*

We will measure success by the **number of truckloads of donated goods that we are able to pick up**, as well as the increase in revenue generated at the ReStore. We anticipate that in the first year, we will be able to pick up a minimum of 750 loads of material, increasing from roughly 600 the prior year. We also anticipate that this **additional material** will translate into roughly **\$80,000 in sales at the ReStore**, by following the standard Habitat for Humanity calculation guidelines that call for \$1.2 in sales for each pound of material sold.

Materials Management and Solid Waste Management Plan answer example

**For this 2020 cycle, DEQ would need more information about how their community plans to participate to the plan development process.*

The end product of this plan is a master site operations plan that can be developed in stages over the next 5-10 years to accommodate anticipated growth over the next 10-20 years. The site will be redeveloped in stages as priorities are identified and as funds are available. The plan will identify materials handling equipment needs, pedestrian and vehicular traffic flow changes for efficiency and safety, best use of existing buildings and potential new building needs. All of these changes are in service to energy efficiency, diversion from the landfill and best use of existing waste materials.

Ultimately, success will be apparent in 10-20 years, when the transfer station is operating efficiently and safely, able to manage all of the area's waste and having maximized overall energy savings. The immediate success of this plan will be the adoption of the facility master plan by the relevant agencies so that we can begin site redevelopment. A site flexible enough to accommodate changes in population, waste composition, recyclable markets, waste management regulations and programs will be the full measure of success.

CARTM's internal **recovery rate** (recycling as a percentage of total self-haul MSW) is consistently between **50% and 65%, without considering the reuse programs**. Another measure of success will be the **maintenance and/or increase of this rate as the community grows**.

The transfer station has not previously analyzed its energy usage. We anticipate that its **energy use and carbon footprint will improve over the project's audit baseline** as efficiencies are introduced with facility improvements.

Education Efforts Project answer example

The primary goal of this project is to build the long-term sustainability and increase the impact of the Waste Center at the Forest Grove Farmers Market. We will achieve this purpose through the following goals/objectives:

1. Create a Waste **Center manual that serves as a sustainability guide** to increase the independence of the Center from a few dedicated volunteers, integrates practices as part of Farmer's Market staff duties, and can be used to replicate the program.
2. **Collaborate** with Washington County Solid Waste & Recycling to develop a **pipeline of bilingual Master Recycler/Environmental Promoter volunteers** that can assist the Waste Center and further educate the community on waste reduction and materials management.
1. Develop individual vendor **consultation sessions** with Market staff and Washington County Solid Waste & Recycling's Green Business Leaders program on **how to embrace the quadruple bottom line** (people, planet, profit and purpose) and work in collaboration with the Waste Center to reduce wasted food and other materials.

We have specific and measurable outcomes that will help us to assess our success for this project.

- Sustainability Manual for Waste Center with support of Wa. Co **bilingual Master Recycling program** developed. Includes a volunteer component of how to keep volunteers engaged and active throughout the market season.
- Creation of a **paid internship** to manage Waste Center activities.
- 2-3 bilingual Wa Co Master Recyclers begin to routinely volunteer at the Market.
- 9 vendor consultation sessions are held with a primary focus on food-based businesses.
- 2 community waste reduction campaigns delivered to market patrons.
- Waste is diverted from the landfill (measured in terms of cups, plates, napkins, food waste) with a baseline of success determined by 2018 and 2019 numbers.
- 35 personal **interactions** about materials management topics such as how to reduce waste or recycle per week.

Long-term Outcomes:

- The Farmers Market is seen as a reliable source of information on how to consume materials more sustainably for the diverse Forest Grove community.
- Waste Center manual in use and shared with other farmers markets in Oregon for replication purposes.

Education and Outreach Efforts answer example

Through the Sustainability Education Program, this project will:

- 1) Improve the amount of material diverted from the landfill at each of our site by 25% by creating a culturally responsive system to collect and track baseline data. This system will also be used to track the number of greenhouse gas emissions reduced between years 1 and 2. **This will be supported by our staff, Environmental Promoters, Ground Score members, as well as an additional 8 interested low-income residents each year (who will receive a paid stipend).**
- 2) Pay 5 Ground Score members to create and execute a waste audit training. This will be completed in year one utilizing a train the trainer model, so that in year two, those trained will be able to facilitate it for at least 16 multi-family residents.
- 3) The trained residents will conduct waste audits on these same multifamily housing sites and at The Rosewood Initiative, and will subsequently provide (and help implement) recommendations in order to improve recycling rates in multifamily community rooms by 80%.
- 4) Partner with government and local community-based organizations

Year 1 will focus on the creation of a **culturally relevant data collection program** with residents, training residents on how to conduct waste audits, and the establishment of the mini resources libraries and closets on each site and at the Rosewood Initiative.

Year 2 will focus on the continued administration of Sustainability Education Program while simultaneously collecting data through the implementation of the new data collection program.

The project success will be measured by this data collection, which will consist of:

- 1) Volume and weight of materials gathered from waste audits in community rooms. For legal and logistical reasons, we will not be conducting waste audits of the enclosures on each site, although we will conduct visual waste audits (before and after) to make further conclusions about recycling system improvements from year 1 to year 2.
- 2) Volume and weight of materials used in the weekly after-school Education activities on each site.
- 3) Volume, weight, and number of materials used/distributed via the resource closets on each site.
- 4) We will use the data gathered to also estimate the number of greenhouse gas emissions offset.
- 5) We will also keep track of the number of Education activities and participants, with the expectation that with increased capacity and community participation, this number will grow.
- 6) Qualitative surveys will be conducted to gather continual feedback from participants to ensure the data collection methods and Education activities are collaborative and meeting each community's need.