

CLEAN & GREEN ENVIRONMENT

I WANT TO LIVE, LEARN, WORK AND PLAY IN A CLEAN AND GREEN ENVIRONMENT

REQUEST FOR OFFERS

TEAM MEMBERS

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DASHBOARD INDICATORS

Indicator 1: Tree Canopy: Percentage of total Redmond land area covered by tree foliage (urban forest).

Measure Description: Percentage of Redmond land area covered by tree foliage.

Importance: An indicator of environmental health and of high interest to people who live and work in Redmond; trees, clean air and water, protect streams and wetlands, and provide habitat for wildlife; trees provide visual beauty that is part of Redmond's character.

Indicator 2: Single family residential waste stream (garbage plus recycling) and recycling rates.

Measure Description: The City's focus for the solid waste and recycling program in priority order is to reduce, re-use, recycle (3R's) and then have disposal as the last and the least preferred option for dealing with waste. The recycling rate alone is not a good measure since, if the rate goes up it can be good or bad depending if the waste stream has gone up, down or stayed the same accordingly. While it is still very difficult to measure the true success of reduction and re-use, we can get a sense through looking at the overall waste stream generated per household and partnering that with the overall recycling rate.

Importance: The goals of solid waste management are to minimize the solid waste stream and maximize waste reduction and recycling to support a healthy environment for the Redmond community.

Indicator 3: Percentage of streams that are considered to be healthy in an urban setting.

Measure Description: A measure to determine the health of a stream ecosystem by analyzing twelve significant streams and their native habitat. The measure relies on an index score based on the habitat that exists in the streams. An index score of 35 or higher is necessary to support native habitat.

Importance: Healthy waterways are a regional priority; Redmond strives to minimize the impact of urbanization on fragile stream ecosystems.

Indicator 4: Clean Drinking Water: Percent of water quality tests that meet compliance regulations.

Measure Description: Percentage of water quality tests that meet compliance standards.

Importance: The City recognizes the direct correlation between the health of Redmond citizens and the water they drink. Setting and meeting a high standard indicates that water produced and purchased by the City meets customer expectations for safe drinking water.

Indicator 5: Walkability – Percent of population with convenient access to parks and trails (ability to walk less than ¼ mile to a park or a trail from home or office).

Measure Description: Percentage of population with convenient access to parks and trails (ability to walk less than ¼ mile to a park or trail from home or office).

Importance: Easy access to outdoor recreation is an essential element of what makes Redmond a great place to live, play, work and invest.

Indicator 6: Greenhouse Gas Emissions: Percent reduction in Greenhouse Gas Emissions from City operations in alignment with the City’s climate action plan.

Measure Description: Measures greenhouse gas emissions from City operations.

Importance: Strong scientific evidence suggests a connection between the increasing concentration of greenhouse gases and negative environment changes.

INTRODUCTION/SUMMARY OF CAUSE & EFFECT MAP

The 2017-2018 Clean and Green Results Team revised the cause and effect map, indicators and purchasing strategies from the previous team’s iteration to address the City’s revised dashboard indicators. The team made an effort to simplify the cause and effect graphics and to restructure the flow of the various factors to progress from “Vision,” to “Practices,” to “Results.” Our hope is that this latest version adequately illustrates the desired results and will provide offer-writers the clarity necessary to produce the desired outcomes of this priority.

Factor 1: Vision

See Cause & Effect Map for Vision definition.

Factor 2: Practices

Clean and green environmental management requires a cooperative approach between City departments, businesses and the community. Responsible stewardship of shared resources applied to maintaining City infrastructure, parks and open space will ensure continued protection of the environment. Restoring

streams, wetlands and habitat areas that were degraded in the past will promote their continued viability. Reducing hazardous waste and pollutants will limit negative impacts to our valuable resources. Leveraging best management practices, technology and innovation will enhance the City's ability to manage our resources successfully. Protocols focused on keeping these public assets clean and well-performing will provide the highest level of environmental protection we can reasonably attain as a city.

Factor 3: Results

Providing a healthy environment for the citizens of Redmond to live, work and play is central to the Clean and Green priority. Environmentally conscious leadership leads to environmentally conscious resource management – which leads to a clean and green environment for all. Maintaining and restoring healthy habitats and ecosystems in a responsible way is critical to creating a clean and green environment. Such an environment requires that we place a high priority on protecting the quality of our natural resources and are thoughtful about the impacts of construction. We will evaluate our stewardship of resources by measuring a growing, expanding and thriving tree canopy, healthy streams and lakes, clean drinking water, a reduced waste stream, cleaner air and an accessible, walkable City. Redmond will clearly be a safe, beautiful place to live, work and play.

PURCHASING STRATEGIES

WE ARE LOOKING FOR OFFERS THAT:

Strategy 1: Demonstrate how your offer will reduce negative impacts to our environment and/or promote sustainable consumption.

Reducing our negative impact on the environment is critical to improving and maintaining a clean and green city. Offers should encourage sustainable consumption through clean and green innovative management and practices, including reductions in greenhouse gas emissions in City operations. Examples may include waste reduction, recycling, controlling pollution, conservation, energy efficiency, water conservation, alternative transportation, a green fleet, use of efficient green construction practices, low impact development, or other forward-thinking practices that will help achieve this goal.

Strategy 2: Continue to create, develop and maintain the City's safe and beautiful parks, trails, open spaces and places to recreate with emphasis on walkability and connectivity.

As our city becomes more urbanized, it is imperative that we enhance our identity as a physically beautiful place to live, work, learn and play. We will favor offers that create, develop and/or maintain healthy and sustainable habitats and ecosystems; parks, recreation areas and open spaces; and increased walkability and connectivity between parks, open spaces, neighborhoods, and urban centers.

Strategy 3: Provide education and outreach to promote a clean and green lifestyle for residents, businesses and other community stakeholders.

Stakeholders' participation and actions are central to creating and improving our healthy environment. We support offers that include education and awareness that provide our community with the tools they need to become partners in achieving this goal. We encourage programs that raise the level of participation through practical, creative and innovative outreach ideas. In your offers, consider the diversity of our residents and businesses and how to tailor your approach to reach them effectively.

Strategy 4: Promote or provide for the enhancement and restoration of the City’s ecosystem through restoration of the tree canopy, improvement in the health of our streams, and through community engagement in activities related to these goals.

Urbanization, by definition, leads to some level of environmental degradation and deforestation. The City recognizes its responsibility to move beyond programs that merely sustain Redmond’s remaining natural environment and to work actively towards expanding our community’s “green footprint”. We will favor offers that seek to proactively restore the environment, especially additional tree canopy, healthier streams, and cleaner, safer drinking water. Additionally, offers that promote community education and engagement will receive favorable consideration.

NOTES/PRACTICES/SUPPORTING EVIDENCE

1. City of Redmond 2010 - 2016 Parks, Arts, Recreation, Culture & Conservation Plan, <http://www.redmond.gov/insidecityhall/parksrec/parksplanning/PARCCPlan/ProPlanDoc.asp>
2. City of Redmond 2015-2016 Budget (includes Budget by Priorities), <http://www.redmond.gov/insidecityhall/finance/budget/0910adoptedindex.asp>
3. City of Redmond 2009 Benthic report - Hard copy provided by Keith MacDonald & Jerallyn Roetemeyer, Natural Resources Department
4. MacDonald, K. (2010). Biological Assessment of Stream Sites in the City of Redmond, WA. Wease Bollman Rhithron Associates, Inc., Missoula: Wease Bollman Rhithron Associates
5. Cascade Land Conservancy/Green Redmond Partnership, <http://www.cascadeland.org/stewardship/green-cities/green-redmond-partnership>
6. Puget Sound Stream Benthos Map - (Stream Sampling Site Map), <http://www.pugetsoundstreambenthos.org/Biotic-Integrity-Map.aspx>
7. Stream Insect Health Indicator/Aquatic Biota Index - King County Department of Natural Resources, <http://your.kingcounty.gov/dnrp/measures/indicators/ae-aquatic-biota.aspx>
8. Solid Waste Disposal & Recycling Rates as Indicators of Resource Consumption, <http://your.kingcounty.gov/dnrp/measures/indicators/rc-solid-waste.aspx>
9. State of Washington Department of Ecology General Information, <http://www.ecy.wa.gov>
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10. America's 50 Greenest Cities/Popular Science February 2008, Elizabeth, S. (2008, Feb)., America's 50 Green Cities. Popular Science, p. 1., <http://www.popsci.com/environment/article/2008-02/americas-50-greenest-cities?page=1>
11. Best Green Cities in America - Top 25 Green Cities, Country Home. (2008, Mar). Top 25 Best Green Places. Country Home, <http://www.countryhome.com/greencities/top25.html>
12. Americas Top 10 Green Cities/WebEcoist, Elder, G. L. (2010, Feb). America's Top 10 Green Cities. Retrieved Mar 30, 2010, from WebEcoist, <http://webecoist.com/2009/08/06/americas-top-10-greencities/>
13. Smarter Cities - Natural Resources Defense Council; Information for creating sustainable cities., <http://www.smartercities.nrdc.org>
14. Sustain Lane’s 2008 US City Rankings of Urban Sustainability - Sustainable Circles Corp. Website Article, <http://www.sustainlane.com/us-city-rankings/>
15. Top 10 Green Cities in America, Radell, H. (2009, Apr 13). Top Green Cities In America. Associated Content (3), p. 8, http://www.associatedcontent.com/article/1638046/top_10_green_cities_in_america/
16. City of Portland, Oregon - Environmental and Sustainability Programs, <http://www.portlandonline.com/>
17. City of Eugene, Oregon - Environmental and Sustainability Programs, <http://www.eugene-or.gov>

18. City of Chicago, Illinois - Environmental and Sustainability Programs, <http://www.cityofchicago.org/>
19. City of Pasadena, California, 2009 Green City Indicators and Measurements Report; Pasadena, City of. (2009). Green City Indicators Report 2009. Pasadena: City of Pasadena, www.cityofpasadena.net/greencity
20. Wikipedia - Fish migration terminology and definitions, http://en.wikipedia.org/wiki/Fish_migration
21. State of Washington, Department of Ecology, River and Stream Monitoring Water Quality Index
22. 2015-2016 Budgeting by Priorities Request for Offers
23. Redmond Community Indicators 2016 document
24. City of Redmond 2015 Survey
25. B-Sustainable Information Commons: Central Puget Sound Information Source for Making Sustainable Choices, <http://www.b-sustainable.org/natural-environment/stream-health-based-onbenthic-index-of-biotic-integrity>
26. United Nations Environment Program, <http://www.unep.org/>
27. King County: Environmental Data and Trends, <http://www.kingcounty.gov/environment/data-andtrends/monitoring-data/stream-bugs/stream-data.aspx>
28. Asheville North Carolina Sustainability Management Plan 2009, <http://www.ashevillenc.gov/docs/sustainability/AVL.Sust.Plan.pdf>
29. Asheville North Carolina Annual Sustainability Report 2009, <http://www.ashevillenc.gov/web/green/smpexecsummary.pdf>
30. Olympia Washington Sustainable Community Roundtable “An Indicator Research Paper” December 6, 2006; Vol 6. No. 1., <http://olympiawa.gov/en/community/sustainability.aspx>
31. Redmond Municipal Code 13.07.115 Groundwater protection incentive program for existing infiltration system modifications, as amended by Ordinance 2791, 2015
32. Minnesota Pollution Control Agency, Greenstep Cities, <http://greenstep.pca.state.mn.us/bestPracticesDetail.cfm?bpid=16>
33. City of Charlottesville, VA, Best Management Practices for Tree Preservation, Transplanting, Removal and Replacement, 2010
34. City of Redmond, Parks, Arts, Recreation, Culture & Conservation Plan (PARCC), 2016

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Vision

- Support education and outreach
- Develop cross-departmental partnerships
- Grow business & community partnerships
- Encourage innovative & efficient clean technology
- Practice environmental stewardship
- Model environmental sustainability

Practices

Responsible stewardship of shared resources

- Watershed
- Air quality (eCO₂)
- Parks & open spaces (walkability)

Restoration of habitat

- Streams
- Wetlands
- Tree canopy

Best management practices

- Drinking water quality
- Storm and waste water
- Solid & hazardous waste

Results

- Thriving tree canopy
- Healthy streams & ecosystems
- Clean drinking water
- Reduced waste
- Clean air/reduced eCO₂
- Accessible green spaces
- Safe, beautiful places to live, learn, work, and play