BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING)	Resolution No. 93-1767A
RESOLUTION NO. 93-1767, PROJECTS FOR	.)	
THE ONE PERCENT FOR RECYCLING)	Introduced by Rena Cusma,
PROGRAM FOR THE 1992-93 FISCAL YEAR)	Executive Officer

WHEREAS, The One Percent for Recycling Program was established by Ordinance 250 B
No. 88-2053 on July 14, 1988, to foster implementation of innovative recycling projects and programs; and

WHEREAS, An Advisory Committee was created to develop criteria and guidelines annually for the One Percent for Recycling Program; and

WHEREAS, Recommended criteria, guidelines, and application form were adopted by the Metro Council on October 22, 1992; and

WHEREAS, The advisory Committee received and evaluated twenty proposals and interviewed six proposers; and

WHEREAS, Two hundred thousand dollars (\$200,000) is available for the One Percent for Recycling Program this fiscal year to fund projects; and

WHEREAS, The Advisory Committee has recommended five projects that total \$122,624 be funded during the 1992-93 funding cycle; and

WHEREAS, The resolution was submitted to the Executive Officer for consideration and forwarded to the Council for approval; now therefore,

BE IT RESOLVED, That the Metro Council, as provided in Section 5.04.050 (a) of the Metro Code, approves the projects recommended by the One Percent for Recycling Committee as shown in Exhibit A of this Resolution.

ADOPTED by the Metro Council this 11th day of March, 1993.

Judy Wyers, Presiding Officer

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Exhibit A

1% For Recycling Program 1992-93 Project List

PROPOSER: Association of Oregon Recyclers

\$42,400

Jeff Detlefson, Coordinator, assisted by The Center for

Urban Studies, Portland State University

PROJECT: In-store and household used oil recycling promotion and education

This project is expected to increase the amount of used motor oil collected for recycling from do-it-yourself oil changers through retail store campaigns and direct contact with households in targeted areas. The proposed timeframe is eight months starting in May.

The project will be conducted in two phases. During Phase I, information on oil recycling will be distributed to 50 local retail outlets that sell large volumes of motor oil. These materials will be comprised of large signs with tear-off slips detailing the curbside collection program, proper preparation of used oil for collection, and local depots accepting the materials. Brochures will be made available on store shelves and at sales counters, and the promotion will also focus on encouraging consumers to purchase oil with re-refined content. The proposer has contacted several large retail chains including Fred Meyer and GI Joe's. Reaction has been positive, and a substantial level of commitment is indicated. Students from Portland State University will deliver and place signs in the stores and perform follow-up studies and surveys at the outlets.

Phase II of the project is designed to promote used oil collection directly at the household level. Over a six-month period, 2,400 households will be contacted at a rate of 400 per month. Several forms of promotion will be tested to determine the most effective method. These tests will be conducted on a pilot basis in several different residential areas throughout the region. Promotion will be conducted by a variety of methods, including direct mailing of brochures, garbage can or door hanger information fliers, personal direct contact, post-paid mailing cards to residences to return to request free oil recycling containers, and the direct distribution of oil recycling containers door-to-door. Clean plastic milk jugs are proposed as the container to be used. The proposer will work with local garbage haulers to assess the effectiveness of each method. Hauler support has been solicited and is indicated in some areas, such as Eastside Recycling in Multnomah County.

Despite curbside collection of used motor oil available to residents in the Metro area, the recycling rate remains very low (near 20%). There is a substantial difference between in the amount of oil consumed and the amount recycled or safely disposed in the region. Unsafe and illegal disposal, therefore, continues to be of major concern. This project intends to heighten awareness of the environmentally sound options available to do-it-yourself oil changers and to increase the recycling level of used motor oil in the Metro region.

PROPOSER: Project Resource \$28,800

Paul Seitz, Coordinator

PROJECT: "One-stop shopping" resource center for teachers and educators

in the Metro area designed to provide information on waste reduction and recycling and environmental curriculums

This one-year project is designed to provide an information network that brings together sources of waste reduction and recycling educational curricula to serve as a referral service for teachers and educators in the Metro region. Currently, information is widely dispersed and fragmented. To identify and seek out sources for curricula and teaching tools specific to waste reduction and the environment that can be used as course material, teachers must use their own time, money and energy. The project would make an "800" number telephone line (currently subscribed to by the Environmental Education Association of Oregon *Environmental Hotline*) available to teachers, students or community members allowing them access to a variety of environmental information sources. This project will bring together many of the valuable services offered by several agencies, including Metro's Recycling Information Center, Greenspaces Program, DEQ curricula, OMSI, education services districts, and services offered by the cities, counties, state and private industries.

The grant funding would provide for staff time and basic start-up costs for the creation of this service. Support has been garnered from OMSI consists of office space and some in-kind services at the old Museum site. Interest and potential support has also been offered by the Oregon Department of Education, the EEAO (Environmental Education Association of Oregon), energy companies and members of the recycling industry. Other funding sources are being sought to augment Metro's grant. An oversight team comprised of Metro staff, educators and industry experts would be established to provide guidance and support to the project.

This project serves to provide teachers, students and members of the community with expanded information about and access to waste reduction and recycling curricula. Teachers and educators have expressed the need for such a resource and have supported the project's development. The proposer expects to seek other funding sources to continue the program following implementation when its value has been established.

PROPOSER: Resource Information Systems (RIS) \$20,400

David Allaway, Coordinator

PROJECT: Model source reduction programs at four Metro region businesses

and institutions to promote source reduction and recycling

This one-year project will set up programs to promote source reduction at four locations in the region. Two school districts in Washington County, a hospital in the Legacy Health System in Multnomah County, and the headquarters of Mentor Graphics in Clackamas County. The project will be conducted in two phases; to first implement and document model source reduction activities on-site, and second to use the results obtained to promote source reduction elsewhere.

Phase I will consist of interviews with site personnel to set up programs at the four locations. Working with purchasing agents and nursing staff at the hospital, RIS will conduct research targeting alternatives to over-packaging and disposables. The source reduction efforts at the high technology location will identify ways to reduce waste sent off-site in manuals and packaging, reduce campus landscaping and cafeteria wastes, and assist in reducing office paper generation. The two school district programs will target teachers and students by promoting source reduction ideas. Concepts such as "Zero Waste Lunch", vermicomposting as science projects, and a materials exchange are examples of what can be promoted. This portion of phase I will begin after school starts in the fall. For each location, in-house promotional poster materials will be developed, designed to be modified or personalized for use by other businesses and institutions.

RIS will form teams of employees, perform waste audits and develop implementation plan at each site. As source reduction activities are implemented, staff will be trained and results monitored. Throughout the course of the project, modifications will be made to refine each model program. From this, information will be obtained to provide blue prints for fact sheets and brochures that can be replicated for other locations, promoting source reduction at hospitals, offices, schools, and specifically for yard maintenance and food service.

Phase II will begin this fall and consists of outreach to other businesses and institutions via local media, networking to professional organizations, and trade shows. Results of the model programs will be promoted with fact sheets and brochures. Metro Public Affairs and Solid Waste Department staff will be asked for assistance in integrating the information and to further refine communication strategies and identify target audiences.

Metro funds for this project will be used to provide two-thirds of the cost of project coordinator and promotion and educational materials. One-third of the coordinator's cost, or \$8,000, will be secured from other sources by the contractor. This project is seen as having the potential to be an important supplement to on-going programs. Teachers and purchasers are critical links in the outreach to promote reduced consumption of poor market materials such as mixed waste paper, plastics, and "disposable," over-packaged products.

PROPOSER: Venture Solutions \$10,000

R. Wayne Fields, Coordinator

PROJECT: The development of a prototype high-benefit roof tile with

mixed crushed glass content

This one-year project will develop and test an innovative roof tile made from 50% mixed crushed glass bonded with an epoxy-based fiberglass resin. This tile would utilize glass products that currently have no market for reuse such as flat glass (i.e. windows) and ceramic based material, and are otherwise targeted for landfill disposal. Unlike other products that use waste glass, the composition tile can tolerate contaminants such as paper labels and small metal fragments without sacrificing the quality of the end product.

It is expected that the product will have a price that is competitive with existing roof tiles. It is light weight, requiring no structural alterations such as those needed for concrete roof tiles, and it is moldable. This allows for texture, shape, style and color variations, as well as high strength. The product also has a unique design that reduces or alleviates water leakage and tile blow-off. Another benefit to this roofing tile is that old tiles can be removed, re-ground and added to the mixture for new tiles resulting in little or no waste. The manufacture of the product creates little or no residual waste as batches of resin are mixed according to the number of tiles being molded. Any remaining resin can be ground and added to the next product. Tile life expectancy is designed to be comparable to conventional roof tile.

The grant funds will be used for further testing to create a marketable prototype in order to garner needed private sector support. Metro's money will be used for equipment, promotion and education, testing and engineering services, and some market evaluation. The project has a phased long-term approach for the manufacture and marketing of the roof tiles. Metro is contributing to Phase 1 development of the product. Venture Solutions anticipates having the final product on the market by 1995.

This project targets and utilizes a portion of the waste stream that presently has little or no value to other processors. Materials that would otherwise go directly into the landfill may have the potential of being incorporated into a viable and high value resource.

JM/JN/ay MAND/1PCT/PROJSUM.DOC February 18, 1993 PROPOSER: Palermini and Associates \$21,024

Debbie Palermini, Coordinator

PROJECT: "Restaurants Taking the Challenge" Restaurant waste reduction

and recycling

The purpose of this one-year project is to develop and implement a comprehensive demonstration program for Metro area restaurants. The goal is to reduce the amount of waste they generate, teach about and encourage the reuse and recycling of materials where possible, and encourage the use of products packaged in or made with recycled content. This project will target several types of restaurants, including upscale restaurants, cafe style and fast food establishments. Each pilot project will be tailored to suit the individual restaurant type.

This project has several commitments for in-kind services and other support from restaurant chains, Pacific Power, PGE and the Oregon Restaurant Association. It will be conducted in two phases.

Phase I will consist of five to seven pilot projects in local restaurants in the three-county area. These pilot projects will be used to determine the following:

- Baseline waste generation, current recycling levels, and currently used products that contain recycled materials.
- Hands-on training for managers and staff on cost effective ways to reduce waste, reuse materials when possible, and recycle as much as possible.
- Identify sources and encourage the purchase of recycled content products..
- Monitor the results of the educational pilots for six months.
- Conduct two follow-up waste audits on-site to determine changes in the recycling and waste flow levels.

The second phase of the project will be the development of a "How-To" guide which will contain information for restaurants on how to reduce, reuse, recycle, and purchase recycled content materials. The guide will also provide information on the use of less toxic cleaning materials, purchase of organic produce, and deal with the possibility of separating wastes for composting. A partner workshop for the guide will be held in cooperation with the Oregon Restaurant Association.

Restaurants produce a significant amount of the waste in the commercial waste stream (approximately 20%). Targeting the food industry could result in significant reductions of commercial waste generation levels in the Metro area. This project proposes to become a model for restaurants in the Metro area and, potentially through a later effort, reach out to a broader audience throughout the state. Because the scope includes several different types of eating establishments and has the support of the Oregon Restaurant Association, whose membership numbers 1,400, the project can serve as a model for many types of restaurants on several levels. The program will be designed to be flexible enough to suit particular establishments with unique needs.

SOLID WASTE COMMITTEE REPORT

CONSIDERATION OF RESOLUTION NO. 93-1767, FOR THE PURPOSE OF APPROVING RESOLUTION NO. 93-1767, PROJECTS FOR THE ONE PERCENT FOR RECYCLING PROGRAM FOR THE 1992-93 FISCAL YEAR

Date: March 3, 1993

Presented by: Councilor Washington

<u>Committee Recommendation:</u> At the March 2 meeting, the Committee unanimously voted to recommend Council adoption of Resolution No. 93-1767. Voting in favor: Councilors Buchanan, McFarland, McLain, Washington and Wyers.

<u>Committee Issues/Discussion:</u> The One Percent for Recycling Program is entering its fifth funding cycle. Past and current projects have addressed a broad range of recycling, waste reduction and market development issues. A total of \$200,000 was budgetted for this year's program projects.

Judith Mandt, Solid Waste Staff, explained the process used by the One Percent for Recycling Committee to solicit and review funding proposals. She noted that 20 proposals were received and six were approved for funding totalling \$192,624. She introduced members of the One Percent For Recyclng Committee who described each approved project.

This year's projects include:

- 1) Development of in-store and household used oil recycling promotion and education program
- 2) Development and testing of an aggregate base which includes waste concrete, asphalt and glass
- 3) Development of a restaurant waste reduction and recycling program
- 4) Development of a one-stop resource center for educators relating to recycling and waste reduction information
- 5) Development of a model business source reduction program
- 6) Development of a prototype roof tile that includes mixed crushed glass.

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING) Resolution No. 93-1767
RESOLUTION NO. 93-1767, PROJECTS FOR THE ONE PERCENT FOR RECYCLING) Introduced by Rena Cusma,
PROGRAM FOR THE 1992-93 FISCAL YEAR) Executive Officer
•	
WHEREAS, The One Percent for Recycling	g Program was established by Ordinance
No. 88-205B on July 14, 1988, to foster implement	ation of innovative recycling projects and
programs; and	•
WHEREAS, An Advisory Committee was o	created to develop criteria and guidelines annually
for the One Percent for Recycling Program; and	
WHEREAS, Recommended criteria, guideli	ines, and application form were adopted by the
Metro Council on October 22, 1992; and	
WHEREAS, The advisory Committee recei	ved and evaluated twenty proposals and
interviewed six proposers; and	
WHEREAS, Two hundred thousand dollars	s (\$200,000) is available for the One Percent for
Recycling Program this fiscal year to fund projects;	and
WHEREAS, The Advisory Committee has	recommended six projects that total \$192,624 be
funded during the 1992-93 funding cycle; leaving a	contingency of \$7,376 for unforeseen needs; and
WHEREAS, The resolution was submitted	to the Executive Officer for consideration and
forwarded to the Council for approval; now therefor	ore,
BE IT RESOLVED, That the Metro Counc	cil, as provided in Section 5.04.050 (a) of the
Metro Code, approves the projects recommended b	by the One Percent for Recycling Committee as
shown in Exhibit A of this Resolution.	
ADOPTED by the Metro Council this	_day of, 1993.
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	Judy Wyers, Presiding Officer

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Exhibit A

1% For Recycling Program 1992-93 Project List

PROPOSER: Association of Oregon Recyclers

\$42,400

Jeff Detlefson, Coordinator, assisted by The Center for

Urban Studies, Portland State University

PROJECT: In-store and household used oil recycling promotion and education

This project is expected to increase the amount of used motor oil collected for recycling from do-it-yourself oil changers through retail store campaigns and direct contact with households in targeted areas. The proposed timeframe is eight months starting in May.

The project will be conducted in two phases. During Phase I, information on oil recycling will be distributed to 50 local retail outlets that sell large volumes of motor oil. These materials will be comprised of large signs with tear-off slips detailing the curbside collection program, proper preparation of used oil for collection, and local depots accepting the materials. Brochures will be made available on store shelves and at sales counters, and the promotion will also focus on encouraging consumers to purchase oil with re-refined content. The proposer has contacted several large retail chains including Fred Meyer and GI Joe's. Reaction has been positive, and a substantial level of commitment is indicated. Students from Portland State University will deliver and place signs in the stores and perform follow-up studies and surveys at the outlets.

Phase II of the project is designed to promote used oil collection directly at the household level. Over a six-month period, 2,400 households will be contacted at a rate of 400 per month. Several forms of promotion will be tested to determine the most effective method. These tests will be conducted on a pilot basis in several different residential areas throughout the region. Promotion will be conducted by a variety of methods, including direct mailing of brochures, garbage can or door hanger information fliers, personal direct contact, post-paid mailing cards to residences to return to request free oil recycling containers, and the direct distribution of oil recycling containers door-to-door. Clean plastic milk jugs are proposed as the container to be used. The proposer will work with local garbage haulers to assess the effectiveness of each method. Hauler support has been solicited and is indicated in some areas, such as Eastside Recycling in Multnomah County.

Despite curbside collection of used motor oil available to residents in the Metro area, the recycling rate remains very low (near 20%). There is a substantial difference between in the amount of oil consumed and the amount recycled or safely disposed in the region. Unsafe and illegal disposal, therefore, continues to be of major concern. This project intends to heighten awareness of the environmentally sound options available to do-it-yourself oil changers and to increase the recycling level of used motor oil in the Metro region.

PROPOSER: Pacific Rock Products

Jeff Wriston, Coordinator

PROJECT: Develop and test an aggregate base from waste concrete,

asphalt, and glass

This one-year project proposes to develop an aggregate base comprised of 100% recycled materials. A combination of waste concrete and asphalt from construction projects and waste glass consisting of plumbing fixtures, window panes, auto and boat glass, blocks and panels, mirrors, and some containers will be used. The materials will be crushed using modified rock crushing industrial equipment to create different grades of aggregate for various applications. The proposer, Pacific Rock Products, operates gravel mining sites in California, Idaho, Washington and Oregon. They propose to set up an operation at an existing company property located on southeast Foster Road in Multnomah County that would receive materials for processing.

\$70,000

The grant funds would be used to set up the project to test "blends" of materials for general characteristics of strength, density, and gradation; and for more specific qualities as size, shape, plasticity, friability, and fragmentation. Approximately two-thirds of the grant funds will be used for labor for the operation to receive, process, and prepare the "blends." The balance will be used for training, engineering consulting and analysis, and crushing equipment modifications that may be needed to allow for cutting wear and changed material output. Purchase of an industrial magnet (tramp iron handling) may also be needed.

This project, using waste concrete and asphalt that aren't being recycled, and waste glass products is seen as an innovative idea that has the potential to provide solutions to two problems:

Problem 1. Waste Stream

Concrete and waste asphalt (that is not recycled as part of a road construction project) are currently disposed as fill at local disposal sites and operators charge generators to bury the materials as waste. Alternatively, since it is expensive to dispose of them, these materials also are known to occasionally be illegally disposed, at isolated areas throughout the region. In either instance, the materials serve very little or no further useful purpose, and in the case of illegal disposal, can cause harmful environmental effects.

Glass is of ample supply and a much-discussed commodity. Containers largely are recycled, though a very substantial stockpile exists in the region. Still, prices for glass range from \$10 per ton for green glass to \$40 per ton for flint. There is a major source in the waste stream, however, that presently has no useful home: Windows, vehicular and building; demolition plate, blocks and panels, mirrors, doors, and increasingly, ceramics. Last summer's drought has seen the start of an aggressive program by local water providers to advocate installation of more water-conserving toilets. Metro was asked to help with the disposal for those being replaced and there was no recycling solution. It would be self-defeating for the toilets to be re-used, so they must be destroyed, and are presently being broken and landfilled.

Use of these three materials as aggregate base has a good waste stream argument. There is, as well, another compelling reason:

Problem 2. Aggregate Supply

Aggregate is a commodity from gravel operations whose supply is sharply in decline as a result of the practical difficulties now involved in siting rock removal operations near urban areas, since environmental impacts of such operations are difficult to mitigate. The life expectancy of local mining operations and quarries is estimated by the industry to be less than a decade, and only an 8-year reserve remains in the area if development occurs at the present rate. Since distance is an expensive factor to overcome, importing large volumes of aggregate will be a limited solution. An alternative to the traditional aggregate is a necessity if economical development is to continue and we are to avoid only being able to build something when something else is torn down.

In response to the probable future shortage, road base innovations such as glass and asphalt ("glassphalt") rubber-modified asphaltic concrete (RUMAC) and others have been developed and are being tested now. Metro participated jointly with Multnomah County and the Oregon Department of Transportation in a RUMAC demonstration project on a section of road in the county two years ago. Core drillings are periodically done on the roadway and results are not yet conclusive. Alternatives to the traditional road base are long in the development and testing stage, illustrating the need to move ahead. Long term performance is the high priority for road base, since most roads must last at least 20 years and be improvable to add up to 15 more years of life.

Therefore, the immediate on-site application of this project will be directed at heavy loads, moisture stability, ease of placement, compactability, and density. Results of this testing will be used to begin the longer term work of applying for certification from public agencies, if the product performs as desired. In addition to the needed product testing, short term potential products will be the main result of this project, including:

Parking lots, driveways, and other light loading applications.

Drain Pipe Bedding and Backfill, aggregate used for filling around and on top of perforated drain pipe.

Utility Bedding and Backfill, aggregate used for filling cavities around underground utility lines.

Embankments, built-up mounds of aggregate used to hold back water or support a road.

Drainage Aggregate, fill used to quickly drain moisture out of a construction area and/or filter non-point source waters.

Aggregate base course, an unbound layer of compacted aggregate on which a road surface is laid.

Backfill/Clean fill, aggregate fill used for filling holes made during construction.

Aggregate consisting of 80% concrete and asphalt and 20% waste glass has not been tested. It is, however, a realistic alternative to valuable traditional aggregate for the above uses, thus conserving the aggregate for roads and other construction and removing these materials from the waste stream. The proposer has more than 30 years experience in the road construction business and believes that there is potential for success with such a mix. Interviews with professionals in the industry have been positive; there is agreement that the idea is potentially sound and should be tested. A major supplier of aggregate in the four-county area, the proposer has a reliable reputation in the industry for doing what they say they will do.

PROPOSER: Palermini and Associates \$21,024

Debbie Palermini, Coordinator

PROJECT: "Restaurants Taking the Challenge" Restaurant waste reduction

and recycling

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This project targets and utilizes a portion of the waste stream that presently has little or no value to other processors. Materials that would otherwise go directly into the landfill may have the potential of being incorporated into a viable and high value resource.

JM/JN/ay MAND/1PCT/PROJSUM.DOC February 18, 1993

STAFF REPORT

FOR THE PURPOSE OF APPROVING RESOLUTION NO. 93-1767 PROJECTS FOR THE ONE PERCENT FOR RECYCLING PROGRAM FOR THE 1992-93 FISCAL YEAR

Date: March 2, 1993 Presented by: Judith Mandt

Jennifer Ness

This staff report presents the recommendations by the 1% For Recycling Advisory Committee for the 1992-93 funding cycle and constitutes the 1% For Recycling Project List. This year, \$200,000 is available for the program.

<u>History:</u> The program was established in the 1988-89 fiscal year; this is the fifth funding cycle. A seven-member advisory committee serves in a review capacity to solicit proposals, evaluate and make recommendations for the project list. The committee is comprised of seven members, two from each of the three counties and appointed by the Executive Officer, and the chair, who is a Metro Councilor appointed by the Presiding Officer.

The committee met during the summer months to review and revise the program criteria, guidelines and application form for the 1992-93 fiscal year. These criteria and guidelines as well as the Request For Applications were presented to and approved by the Council, October 22, 1992. Applications were solicited for a period of 45 days beginning October 26. Advertisements were placed in newspapers of local circulation and a pre-application informational meeting was held at Metro on September 30. There were 20 applications submitted by the application deadline of 5:00 p.m., December 11. One late applicant who arrived after 5:00 p.m. requested that the committee consider an appeal of the deadline. This request was considered by the Committee and Councilor Roger Buchanan, the Chair of the Committee at that time, and the appeal was denied. The Committee based this determination on the decision made during the previous funding cycle that applications would be due at 5:00 p.m., and that no exceptions would be made to accept late proposals. The proposer accepted the decision of the Committee.

The applications, divided into two categories; promotion/education and waste reduction, were reviewed during December and January by the Committee and Solid Waste and Public Affairs staff. A standard evaluation tool was used to score assigned points to the proposals, based upon the extent to which the program objectives identified in the criteria and guidelines were met. Emphasis was given to projects featuring source reduction or "precycling" and market development.

The committee continued the policy of requiring that the applicant's identity be withheld until completion of the review process. This is done in order to ensure objectivity and to guarantee that proposals are evaluated solely on their merits. Interviews were conducted in Metro offices February 1 and 4, 1993. Following evaluation, the committee selected six proposals to recommend for funding.

At the close of each project, an evaluation will be conducted by the project coordinator and Metro staff using evaluation methods identified in the contract Scope of Work. Conclusions from these assessments will be compiled into a report on a two-year cycle, in order to allow for multi-year projects to be concluded.

The proposals that have been selected by the committee for funding are described in Exhibit A of Resolution No. 93-1767, which constitutes the Project List for 1992-93.

EXECUTIVE OFFICER'S COMMENTS

The proposals recommended for funding by the 1% For Recycling Committee meet the criteria established for this year's program. As such, they represent the Projects List specified in Metro Code Section 5.04.050(a) for this program for the 1992-93 fiscal year.

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