600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1542 | FAX 503 797 1793

METRO

Agenda

MEETING:	METRO COUNCIL WORK SESSION
DATE:	June 17, 2008
DAY:	Tuesday
TIME:	2:00 PM
PLACE:	Metro Council Chamber

CALL TO ORDER AND ROLL CALL

2:00 PM	**1.**	**DISCUSSION OF AGENDA FOR COUNCIL REGULAR MEETING, JUNE 19, 2008/ADMINISTRATIVE/CHIEF OPERATING OFFICER COMMUNICATIONS**	
2:15 PM	**2.**	**NEW BRAND FOR ILLEGAL DISPOSAL CLEAN-UP PROGRAM**	Hoglund
2:45 PM	**3.**	**DIESEL RETROFIT PROGRAM DEFINITION AND ENVIRONMENTAL PROTECTION AGENCY GRANT**	Hoglund/ Watkins
3:30 PM	**4.**	**BREAK**	
3:35 PM	**5.**	**PORTLAND TO MILWAUKIE LIGHT RAIL – SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT**	Wieghart
4:05 PM	**6.**	**COUNCIL BRIEFINGS/COMMUNICATION**	

ADJOURN

Agenda Item Number 2.0

NEW BRAND FOR ILLEGAL DISPOSAL CLEAN-UP PROGRAM

Metro Council Work Session
Tuesday, June 17, 2008
Metro Council Chamber

METRO COUNCIL

Work Session Worksheet

Presentation Date: June 17, 2008 Time: 2:15—2:45pm Length: 30 minutes

Presentation Title: New Brand for Illegal Disposal Clean-Up Program

Department: Solid Waste and Recycling

Presenters: Roy Brower

ISSUE & BACKGROUND

Metro's Illegal Disposal Clean-Up Program has been going strong since 1993. Over 1,000 illegal disposal sites are cleaned up each year. The program is seeking to fully engage law enforcement, local governments and citizens to solve and prevent illegal disposal in the region. To assist Metro in promoting its service, and to better engage local governments and citizens, the program has been given a new name and identity. The new brand is "Regional Illegal Dumping (RID) Patrol". New promotional materials have been produced with the new name/logo so that Metro can now start the outreach necessary to insure that illegal dumps are routinely reported and cleaned up before becoming a larger problem.

OPTIONS AVAILABLE

Update only.

IMPLICATIONS AND SUGGESTIONS

The new brand better enables Metro councilors and staff to promote opportunities for assisting local governments in cleaning up illegal disposal sites, transient camps and preventing illegal dumping at chronic sites.

QUESTION(S) PRESENTED FOR CONSIDERATION

Information item only.

LEGISLATION WOULD BE REQUIRED FOR COUNCIL ACTION __Yes X No
DRAFT IS ATTACHED ___Yes X No

Agenda Item Number 3.0

DIESEL RETROFIT PROGRAM DEFINITION AND ENVIRONMENTAL PROTECTION AGENCY GRANT

Metro Council Work Session
Tuesday, June 17, 2008
Metro Council Chamber

METRO COUNCIL

Work Session Worksheet

Presentation Date: June 17, 2008 Time: 3:20 PM Length: 45 minutes

Presentation Title: **Metro Diesel Retrofit Program Definition and EPA Grant**

Department: Solid Waste & Recycling

Presenters: Mike Hoglund, Director and Jim Watkins, Assistant Director

ISSUE & BACKGROUND

Health Effects

The health effects of diesel emissions have been the subject of extensive research throughout the world. A growing consensus among health experts is that diesel exhaust is a likely carcinogen to humans at sufficiently high exposure levels and can create and aggravate many respiratory diseases, especially in young children and the elderly. Health experts believe the pollutants of greatest concern from diesel engines are particulate matter (PM), toxic compounds, and oxides of nitrogen (NOx).

For the current year, the Metro Region's refuse collection fleet of about 1,000 vehicles was estimated to contribute nearly 35 tons of PM, and about 330 tons of NOx. According to DEQ-supplied PM data, this represents about 7% of the total PM produced by on-road vehicles in the metro Portland area. NOx emissions from the refuse truck fleet contribute about 3% of the Portland metro area's NOx emissions.

Work Group

At several different forums during 2005 local governments and others expressed interest in reducing emissions from refuse and recycling vehicles in the Metro Region. In response, SWR committed to help undertake the development of a Diesel Retrofit Program designed to identify available retrofit technologies and other strategies that would result in reducing emissions for the various types of vehicles used to collect solid waste, recyclables and yard debris in the Metro Region. The Program would support the Metro Regional Solid Waste Management Plan goal of reducing greenhouse gas and diesel particulate air emissions.

Metro has engaged a broad group of stakeholders interested in and/or who could be potentially affected by the Diesel Retrofit Program. A key cooperative element was the establishment in early 2007 of the "Diesel Retrofit Program Work Group," composed of representatives from Metro, the local governments affected by the program, the refuse and recycling truck fleets (reflecting the diversity of the types of fleets that will participate in the program), the Oregon DEQ, and local public interest groups.

Over the course of 2007, the Work Group reached a consensus on four program objectives for the Metro Diesel Retrofit Program:

1. Maximum feasible reductions of PM, including ultra-fine particles, with reductions in NOx emissions also being important and highly desirable;
2. Maximum certainty of continued use of EPA- or California Air Resources Board-verified product implementation to achieve air quality objectives;
3. Define a program that can be funded through existing funding/financing mechanisms
4. Maximum participation from all fleets.

Phase I

Implementation of the program was recommended for inclusion in the Metro 2008-09 budget with funding provided by the Regional System Fee (RSF) or from Metro reserves. During the budget process, the Office of Metro Attorney rendered an opinion that use of the RSF to fund the program is likely inappropriate and that clarification should be sought through the state legislature. In response, the Solid Waste & Recycling Department proposed a more limited initial phase of the program utilizing a potential EPA grant for such projects together with matching funds provided by the Metro general funds (excise tax revenues).

Submittal of the grant requires the Metro Council's approval per the conditions contained in **Budget Note 1: Diesel Retrofit** of the approved 2008-09 budget. Attached is the program plan requested in the note for both the initial grant phase of the program as well as the strategy for full program implementation over time, together with additional background.

Phase I of the program is based on $1 million in funding from EPA (deadline July 1st) with a matching contribution of $400,000 from Metro. If awarded, this level of grant would result in the installation of diesel particulate filters (DPF) in approximate 175 vehicles. The number of vehicles retrofitted would decrease if less than the full amount of funds were allocated. It is anticipated that some of the participating collection firms may wish to take advantage of the state's 50% tax credit program, in which case any funds received could be leveraged to increase program effectiveness.

Full Program

Full program implementation for the region of an additional $5.5 million would be raised form the RSF, and as noted would require authority from the Legislature. This would result in the installation of DPFs or oxidation catalysts in the remainder of the fleet for which this technology is appropriate. Approximately 470 vehicles (slightly less than half the fleet) would receive no retrofitting as they are too old for any EPA-verified technology. Note: the program recommendation for this older portion of the fleet is an early replacement program administered by local governments which would result in over half of the projected total emission reductions, particularly with new NOx reduction technologies.

OPTIONS AVAILABLE

1. Authorize submittal of a grant application in response to the *West Coast Collaborative Diesel Emissions Reductions Request for Proposals (RFP) FY 2008* sponsored by the Environmental Protection Agency (EPA). The application would request $1 million from EPA and a Metro match of $400,000.

   Pros
   - Permits initiation of the Diesel Retrofit Program without waiting for legislative action
   - Leverages Metro dollars (excise tax revenues) for federal dollars
   - Allows refinement of program implementation strategies prior to full implementation

   Cons
   - Uncertainty as to whether full amount, or any of the requested grant will be received from EPA
   - Even if grant funds are received, legislative approval for the use of the RSF is not certain to fund the full program

2. Authorize submittal of the grant application for an amount less than $400,000.

   Pros
   - Would leave more revenue in the Metro contingency funds
   - Provides a smaller test project for the filter technology ahead of a possibly full program in out years

   Cons
   - A lower match may result in a lower-level grant award or amount
   - Makes scoping the project difficult since budget becomes uncertain

3. Do not authorize submittal of the grant application; or postpone until receiving Legislative authority to use RSF funds.

   Pros
   - Metro need not develop a program that initially conforms to EPA requirements
   - Metro may use existing staff for other efforts such as long-term program development or other efforts

   Cons
   - Significant pollution from the solid waste collection and recycling fleet will continue to be emitted
   - May hamper local government efforts to implement the accelerated replacement program for older vehicles

IMPLICATIONS AND SUGGESTIONS

The SWR department suggests moving forward with some level of a grant request and matching funds. A grant, even relatively small, will allow for testing of the filter equipment and may leverage local accelerated replacement programs.

In conjunction with the grant, and consistent with the Metro Charter, OMA notes that an ordinance expressing particulate matter or emissions from solid waste and recycling fleet vehicles is an "issue of metropolitan concern."

Another implication from a smaller first phase program will be how best to select candidate vehicles given the limited scope of the first phase, and the desire of most jurisdictions to participate. This will be especially true if the grant award is significantly less than the requested amount.

If the grant is not approved, the department would need to discern how Council would like to proceed.

QUESTION(S) PRESENTED FOR CONSIDERATION

1. Does the Council wish to allow the SWR department to submit a grant application to EPA for the amount of $1 million dollars with a potential match of $400,000 from Metro?

2. Does Council wish to permit the grant application with a match other than $400,000?

3. Does Council wish to direct staff to not submit an application?

4. Should staff continue to keep Legislation on the table for the 2009 session that would allow RSF funds to be used for solid waste and recycling emission reduction purposes? (Council may choose to pull such Legislation as the Metro agenda is formulated over the remainder of the year).

Attachment to Council Work Sheet
for
Diesel Retrofit Program Definition and EPA Grant

Background

Health Concerns from Diesel Emissions

The health and welfare effects of emissions from combustion engines and diesel emissions in particular, have been the subject of extensive research throughout the world. A growing consensus among health experts is that diesel exhaust is a likely carcinogen to humans at sufficiently high exposure levels. Health experts believe the pollutants of greatest concern from diesel engines are particulate matter (PM), toxic compounds, and oxides of nitrogen (NOx). These experts also have concluded that older diesel engines, which emit PM and NOx up to 80% or greater levels of pollution than the on-road diesel engines being sold today, pose the greatest health and welfare risk.

Particulate Matter -- PM is made up of solid particles, including carbon, adsorbed organic compounds, hydrocarbons, and hydrocarbon derivatives. Diesel PM typically is less than 2.5 microns in diameter. These particles are inhalable and can reach the lungs. A significant percentage of diesel PM is less than one micron in diameter (ultra-fine particles). Ultra-fine particles, which can be deposited very deeply in the lungs, have become an increasing concern among health experts worldwide.

Scientific studies have linked certain PM constituents to various health problems, including aggravated asthma, decreased lung function, increased respiratory problems such as chronic bronchitis, adverse cardiovascular impacts, and premature death. Diesel PM also contributes to a variety of environmental impacts including visibility impairment, adverse impacts on agricultural productivity, and infrastructure soiling and erosion (e.g. soot and acidic based compounds deposited on building surfaces). Finally, the carbon portion of diesel PM has been link to short-term global warming impacts.

Oxides of Nitrogen -- Oxides of nitrogen (NOx) are a group of chemical compounds that form from the combustion of fuel with the nitrogen and oxygen found in air. NO_2 has been linked with increased susceptibility to respiratory infection, increased airway resistance in asthmatics, and decreased pulmonary function. The inhalation of NO_2 can aggravate pre-existing lung disease, constrict the bronchial tubes, and cause one to be more vulnerable to respiratory infections. In high enough concentrations, it can cause adverse health effects in sensitive populations.

NOx combined with volatile organic compounds (VOCs) in the presence of heat and sunlight forms ground-level ozone, the main component of smog. Evidence has shown that short-term exposure to ozone results in harmful respiratory effects including chest pain, coughing, and shortness of breath. Inhalation can cause acute respiratory problems such as worsening of asthma symptoms. Prolonged exposure to ozone can reduce the volume of air that the lungs breathe while increasing the permeability. In addition, ozone adversely affects crop yields, impairs visibility, increases the susceptibility of plants to pests, and has been linked to contributing to global warming. People who work outdoors, children, and adolescents are at the greatest risk for ozone exposure.

Pollutants of Concern in Oregon and their Associated Costs -- According to the Oregon DEQ, the diesel exhaust pollutant issues of principal concern in the State are: 1) fine and ultra-fine particles, 2) air toxics, 3) ground-level ozone, and visibility impairment. As discussed above, diesel engines contribute to each of these pollution concerns. Of special note is that elevated levels of diesel PM have been measured throughout the Portland metropolitan area. DEQ estimated the cancer risk posed by diesel PM in Oregon to be approximately 17 in one million in 2002 dropping to 8 in one million by 2017. DEQ has set as a goal to reduce the cancer risk by 2017 to 1 in one million. Reducing emissions from existing diesel engines will play an important role in helping to meet that goal.

At a Retrofit Project Working Group meeting, Oregon DEQ cited a source (McDubbin and Delucchi, 1999) that estimated the health costs per ton of $PM_{2.5}$ at $109,000 per ton and of NOx at $11,322 per ton. DEQ estimates that the environmental/public health impacts from diesel engines in Oregon to be approximately $2 billion per year. DEQ noted that reducing emissions from existing diesel engines, including refuse and recycling trucks, could significantly reduce these health costs. DEQ cited one example where the costs of retrofitting an existing diesel engine with a diesel particulate filter could be recovered in terms of health costs saved within seven years.

For the current year, the Metro Region's refuse collection fleet of about 1,000 vehicles was estimated to contribute nearly 35 tons of PM (about 97% of which is $PM_{2.5}$), and about 330 tons of NOx. According to Oregon DEQ PM data, this represents about 7% of the total PM produced by on-road vehicles in the metro Portland area. According to Metro's 2004 Air Quality Conformity Determination, the NOx emissions from the refuse truck fleet contribute about 3% of the Portland metro area's NOx emissions.

Metro Involvement

The Solid Waste & Recycling Department (SWR) first became aware of the impact of diesel emissions through DEQ's *Clean Diesel Initiative* in late 2002. SWR researched the impacts of the solid waste system[1] and areas for potential reductions, including the installation of diesel particulate filters (DPF) in trucks used to haul waste from Metro's transfer stations as well as the potential retrofitting of the solid waste collection fleet.

SWR subsequently tested DPFs in its contractor's long haul fleet during 2004. While these prototypes were unsuccessful, staff gained substantial technical knowledge which it has subsequently used in its transfer stations and future transport contracts. Metro in concert with DEQ also used this process to educate both SWAC and the Metro Council on the health concerns related to diesel emissions.

At several different forums during 2005 local governments and others expressed interest in reducing emissions from refuse and recycling vehicles in the Metro Region. In response, SWR committed to help undertake the development of a Diesel Retrofit Program designed to identify available retrofit technologies, other strategies, and the use of biodiesel mixtures that would result in reducing emissions for the various types of vehicles used to collect solid waste, recyclables and yard debris in the Metro region. The program's purpose was to reduce the harmful effects of diesel exhaust by promoting sustainable methods for collecting solid waste, recyclables and yard debris. The program would support the Metro Regional Solid Waste Management Plan goal of reducing greenhouse gas and diesel particulate air emissions.

[1] *Reducing Regional Diesel Pollution*, draft White Paper, 5/15/03.

Diesel Retrofit Program Development

Metro retained a consulting firm in 2006 and began collecting detailed information on the waste and recycling fleets. The detailed information from over 700 trucks was used to compose an emissions profile and for use in identifying appropriate retrofit technologies. Emission projections were developed as were reductions available through both retrofitting vehicles with different technologies as well as reductions available through the early retirement of older vehicles for which no retrofit solution was available

A key element of the Metro Diesel Retrofit Program development was the establishment in early 2007 of the Diesel Retrofit Program Work Group of approximately 30 individuals. The Work Group represented a diverse group of interested stakeholders made up of representatives from Metro, the local governments affected by the program, the refuse and recycling truck fleets (reflecting the diversity of the types of fleets that will participate in the program), DEQ, and local public interest groups.

The Work Group met on several occasions to help shape the Diesel Retrofit Program. With the assistance of Metro's consultant Emissions Advantage, Metro staff and the Work Group: 1) reviewed and discussed fleet and emission inventory data, 2) evaluated retrofit options to be considered in the program, and 3) identified the air quality and other program objectives to be achieved by the Diesel Retrofit Program.

After reviewing and discussing a wide range topics including, 1) technology-, fuel- and operational-based strategies to reduce diesel emissions, 2) fleet data and emissions inventory analyses for the refuse and recycling fleets serving the metro Portland area, 3) information on health/environmental impacts and cost/benefits of controlling diesel emissions, 4) a process for selecting the best strategies, and 5) the elements of a successful Diesel Retrofit Program, the Work Group reached a consensus on four air quality and other program objectives for the Metro Diesel Retrofit Program:

1. Maximum feasible reductions of PM, including ultra-fine particles, with reductions in NOx emissions also being important and highly desirable

2. Maximum certainty of continued use of EPA- or California ARB-verified product implementation to achieve air quality objectives

3. Program that can be funded through existing funding/financing mechanisms

4. Maximum participation from all fleets

As is discussed in detail below in Part 2II, development of the draft Metro Diesel Retrofit Program Plan has been accomplished with the specific purpose of fashioning a program that achieves the objectives specified by the Diesel Retrofit Program Work Group.

After extensive analysis and significant input from the Work Group, the following strategies have been included in the Metro Diesel Retrofit Program as providing the best opportunity to satisfy all of the program's objectives:

- Diesel Particulate Filters (DPFs)
- Diesel Oxidation Catalysts (DOC)
- Diesel Oxidation Catalyst/Closed Crankcase Ventilation Control System (DOC/CCV)
- Engine Control Module (ECM) Reprogram (primarily for NOx reduction)
- Reduced Idling
- Accelerated Vehicle Retirement/Replacement for vehicles not retrofitable

All of these strategies are well-demonstrated, available and capable of providing meaningful reductions in diesel exhaust emissions[2]. Projected emission reductions are summarized below:

Table 1 – Baseline Five-Year Emission Inventory and Estimated Emission Reductions from Program Implementation

BASELINE 5 YEAR INVENTORY					
Baseline total of 1000 vehicles; oldest retired each year		**VOCs**	**CO**	**NOx**	**PM**
		113.30	**542.60**	**1586.30**	**162.80**
TOTAL PROGRAM 5-YEAR EMISSION REDUCTIONS					
RETROFIT OPTION	**ESTIMATED NO. OF AFFECTED VEHICLES**	**VOC REDUCTIONS**	**CO REDUCTIONS**	**NOx REDUCTIONS**	**PM REDUCTIONS**
REPLACE VEHICLES OLDER THAN 15 Yrs	470 Total; 433 Net Over Baseline	36.10	139.80	561.00	67.10
DPF	322	28.60	131.40	0.00	40.60
DOC+CCV	129	7.60	23.40	0.00	6.70
DOC	86	4.00	15.60	0.00	3.10
ECM REPROGRAM	157	0.00	0.00	54.10	0.00
IDLE REDUCTION of 1 HR PER VEHICLE	1000	11.90	75.90	53.00	2.30
TOTAL MAXIMUM REDUCTIONS		**88.20**	**386.10**	**668.10**	**119.80**
PERCENT REDUCTIONS FROM BASELINE					
RETROFIT OPTION	**ESTIMATED NO. OF AFFECTED VEHICLES**	**VOC REDUCTIONS**	**CO REDUCTIONS**	**NOx REDUCTIONS**	**PM REDUCTIONS**
REPLACE VEHICLES OLDER THAN 15 Yrs	470 Total; 433 Net Over Baseline	31.9%	25.8%	35.4%	41.2%
DPF	322	25.2%	24.2%	0.0%	24.9%
DOC+CCV	129	6.7%	4.3%	0.0%	4.1%
DOC	86	3.5%	2.9%	0.0%	1.9%
ECM REPROGRAM	157	0.0%	0.0%	3.4%	0.0%
IDLE REDUCTION of 1 HR PER VEHICLE	1000	10.5%	14.0%	3.3%	1.4%
TOTAL MAXIMUM REDUCTIONS		**77.8%**	**71.2%**	**42.1%**	**73.6%**

[2] See *Metro Retrofit Program Plan*, May 2007.

The work group then addressed the issues of implementation and funding of these retrofit strategies.

Implementation

The main dilemma posed for program implementation was the regional nature of the problem while the fleets are regulated by individual jurisdictions. In particular the firms with the largest fleets served multiple parts of the region with often the same trucks. Therefore an individual jurisdiction attempting to implement the program strategy confronted the issue of equity to its ratepayers who may be asked to fund retrofit or replacement while another jurisdiction enjoyed the benefit. Also, the pollution caused by the emissions is not necessarily confined to an individual city or county. The work group decided that to be effective the program should be implemented region-wide. Metro was therefore selected as the most appropriate organization for implementation, partnering with through the local jurisdictions for retrofitting of the fleets.

Funding

A variety of funding mechanisms such as loans, grants, private funding with recovery through rates, as well as disposal fees and taxes were examined. As with implementation above, it was concluded that a regional approach would be the most equitable and effective. Metro was therefore selected as the appropriate revenue source much like it funds regional solid waste initiatives such as waste and toxics reduction efforts through taxes and fees on disposal. Staff was directed to research appropriate funding in more detail. Based upon the regional nature of the program staff and its use in funding regional waste reductions program, staff concluded that the Regional System Fee would be the most appropriate funding source. A legal opinion was requested from OMA.

SWAC Recommendation

Metro's Solid Waste Advisory Committee was briefed on the recommendation of the work group through a series of presentations in the Fall of 2007, including a presentation from DEQ on the scope of the problem. SWAC debated many of the recommendations of the work group and in particular the accelerated replacement of vehicles. Additional research was conducted regarding the costs of this phase of implementation.

At its October 25, 2007 meeting the committee considered three options:

- Implement all the strategies recommended by the work group
- Implement the retrofit portions of the strategies excluding vehicle replacement
- Do nothing

The committee voted 11-2 for the retrofit-only option. It should be noted that within this option the recommended funding source was to increase the regional system fee. The total cost of the Diesel Retrofit Program was estimated to by approximately $7 million dollar. This would result in an increase in the RSF of approximately $1.65 per ton over the three year program period.

Budget Process

Based on the recommendation of SWAC, the SWR Department proposed inclusion of the first year implantation costs in its 2008-09 budget. It also requested an opinion from the Office of Metro Attorney on the appropriateness of using the RSF for funding the program.

On March 12, 2008, OMA issued an opinion "that use of such fees for the proposed purpose is at least questionable and is likely not permissible under the statute." It suggests that Metro seek clarification from the state legislature to ensure use of the fee was appropriate.

Since the Metro Council indicated support of the program, staff proposed to initiate the project in the coming fiscal year on a limited scale pending a legislative solution. This consists of seeking funding from an EPA grant process for implementing the first phase of the Diesel Retrofit Program Plan. This resulted in the Council setting aside up to $400,000 in matching funds on the conditions laid out in Budget Note 1.

Budget Note 1

The budge note requires the SWR department to satisfy a number of conditions prior to submitting a grant application to EPA. This purpose of this section is to address those requirements.

Program Plan for both the initial grant phase and for full implementation

Grant Phase

The program objectives for the grant program are to demonstrate how the proposed diesel retrofit strategies recommended by the work group and SWAC can achieve the main program objectives of the Diesel Retrofit Program Plan- for the most polluting vehicles in the region's fleet.

The program proposed would select trucks from the regional solid waste and recycling collection fleets based on the following factors.

a. Achieving maximum feasible reduction from candidate vehicles
b. Candidate vehicles could be no older than 15 years
c. Participation would be voluntary
d. Participating fleets would be encouraged to utilize available tax credits to retrofit other vehicles in their fleets

Selection of initial vehicles would be based on the vehicle databases used in developing the Metro Diesel Retrofit Program Plan. Metro would work with both the hauler and local government regulator to encourage participation through a variety of outreach strategies. These strategies will include developing materials to encourage hauler understanding of the program's goals as well as how to participate. Other outreach materials will target local government partners and other stakeholder groups initially identified in the work group program plan. It is estimated that the expenditure of $1.4 million would result in the retrofitting of approximately 175 vehicles with diesel particulate filters (DPF). Metro will also encourage firms to take advantage of the state's 50% tax credit for retrofit devices to increase the number of vehicles retrofitted during this phase.

Vehicle testing and the selection of the appropriate retrofit technology would be arranged through a third-party contracted by Metro. Metro envisions that this contractor would solicit proposals from various suppliers of the retrofit technologies to supply a particular device or range of devices. The contractor would also arrange verification procedures to measure the success of the selected strategy.

Strategy for Full Implementation

Based on Phase I as conducted under the EPA grant, Metro will develop the remaining phases of the Diesel Retrofit Program to achieve maximum participation. As envisioned in the program plan this would differ from Phase I in several key aspects.

Metro would *enter into agreements* with as many of the local jurisdictions as willing through intergovernmental agreements. These agreements would attempt to maximize participation of the solid waste and recycling fleets regulated by the jurisdictions. The terms of the agreements would also include that Metro, through its third-party contractor, would fund all costs associated with retrofitting vehicles with the best available technology. These costs would include testing of the vehicle to select the technology, installation costs, data collection and monitoring costs and the first year maintenance costs- as envisioned in Phase I as well.

For vehicles older than fifteen years, the agreement would *strongly encourage* accelerated replacement. While the program plan adopted by the work group originally envisioned this aspect of the program as a mandatory condition, SWAC voted to recommend that Metro make it voluntary.

Full implementation would be conducted over a period of two to three years depending on the scope of phase I. Approximate cost would be in the range of 5.5 to 6 million dollars, assuming phase I is funded at 1.4 million. Funding is anticipated to come from the Regional System Fee (RSF). This would result in the retrofitting of the remainder of the fleet as characterized in the table above, with either DPFs or diesel oxidation catalysts. The remainder of the fleet (approximately half) that is too old to be retrofitted with verified technologies are candidates for early retirement.

Future use of RSF

SWR requested an opinion for OMA as to how best to proceed in ensuring that the RSF can be used to fund the program. In its initial opinion regarding the use of this funding mechanism, OMA expressed reservations regarding its appropriateness and suggested that "…clarifying amendments of the statute [regarding use of the RSF] be obtained or that another funding source for the program be sought."

It is expected that Metro would seek the amendments from the 2009 legislative session.

Outreach and Constituencies

As the program moves on to full implementation, Metro staff will work to develop an outreach plan strategy intended to engage and educate. Key contacts would be made with stakeholders from the health field, particularly in the area of respiratory ailments; in addition to working with the general public affected by emissions, businesses, local governments and industry representatives.

Agenda Item Number 5.0

PORTLAND TO MILWAUKIE LIGHT RAIL – SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Metro Council Work Session
Tuesday, June 17, 2008
Metro Council Chamber

METRO COUNCIL

Work Session Worksheet

Presentation Date: June 17, 2008 Time: Length: 30 minutes

Presentation Title: Portland to Milwaukie Light Rail – Supplemental Draft Environmental Impact Statement

Department: Planning

Presenters: Richard Brandman and Bridget Wieghart

ISSUE & BACKGROUND

In 2003, the Metro Council, after coordination with its project partners, approved a Locally Preferred Alternative (LPA) for the Portland to Milwaukie Light Rail Project. This 2003 LPA included light rail as the preferred transit mode and an alignment that included service to Lake Road in Milwaukie.

However, the City of Milwaukie had several concerns noted at the time of LPA adoption, including the impact of the 2003 LPA LRT alignment to the Milwaukie Industrial Area. Metro and TriMet worked with the industrial users and identified a Tillamook Branch alignment option. There was also interest in extending the terminus south to Park Avenue. Further, development within the Portland South Waterfront, including a OHSU facility, new residential towers and an aerial tram to the Marquam Hill OHSU facilities were completed. In addition, the Federal Transit Administration (FTA) will only consider projects for New Starts applications when the draft environmental impact statement is no more than three years old.

Accordingly, a new Supplemental Draft Environmental Impact Statement (SDEIS) has been produced by the FTA, Metro and TriMet. The SDEIS may be found on Metro's web site, and paper copies of the executive summary or full SDEIS may be obtained from the Metro Planning Department. A compact disk containing the full SDEIS may also be obtained from Planning.

A 45-day comment period began on May 9 and ends at noon on June 23, 2008. Open houses were held May 21, 22, 27 and 28 and a public hearing before the Steering Committee was held on June 9. All project details may be found at: http://www.oregonmetro.gov/index.cfm/go/by.web/id=223.

Based on public comments and impacts and potential mitigation measures identified in the SDEIS, project advisory groups have begun to consider what might be included in a new LPA. It is anticipated that the Citizen Advisory Committee will make its recommendation on June 12. The project Steering Committee is expected to make an LPA recommendation at its June 26 meeting. The LPA would then go to the various jurisdictions for review. It is scheduled to be considered for approval by the Metro Council on July 24.

Approval of an LPA would allow the project to apply for New Starts funding rating and begin preliminary engineering and preparation of a Final Environmental Impact

Statement (FEIS). The FTA would then issue a Record of Decision and a full funding agreement could be considered by the FTA and construction could commence.

OPTIONS AVAILABLE

There are three major LRT alignment options that the project advisory committees are currently formulating recommendations regarding:

- Preferred Willamette River Crossing (the Willamette River Partnership Recommendation was distributed with the previous packet)
- 2003 LPA (Main Street) or Tillamook alignment in the North Industrial Area in Milwaukie
- Southern Terminus - Lake Road in Milwaukie or Park Avenue in Oak Grove

In addition, station options at Harold Street in SE Portland and Harrison, Monroe, Washington, Lake and Bluebird in Milwaukie are also under consideration. The City of Milwaukie recently went through a public process to identify station location preferences. The Milwaukie City Council's station recommendation is attached. Finally, an elevated station over Harbor Drive near RiverPlace is proposed for elimination or consolidation with the nearby Lincoln Street station. A memorandum from TriMet outlining the rationale is attached as well.

Attached please find "Roadmap to the LPA" which outlines some of the major trade-offs between alignments and as well as information about the Harold street station option. The CAC and Project Management Group (comprised of staff from the various partner jurisdictions) have begun discussion of possible LPA recommendations. Both groups are considering recommending a Refined Porter Sherman Willamette River Crossing, the Tillamook alignment through the North Industrial Area of Milwaukie, and a Park Avenue terminus.

While federal funds (up to $750 million) and state funds ($250 million) have been identified, the project costs of $1.2-$1.4 billion leave significant local matching funds to be secured. In order to bridge the funding gap and allow the project to potentially reach the Park terminus, various cost and scope reductions are under consideration. In case the project costs can't be balanced with available resources, the PMG is considering recommending a Minimum Operating Segment (MOS) which would have a terminus at Lake Road.

Staff will provide Metro Council with an update on the financing srategy.

IMPLICATIONS AND SUGGESTIONS

Metro Council feedback is requested on the various options under consideration which will help with identifying the elements and features of a Locally Preferred Alternative.

QUESTION(S) PRESENTED FOR CONSIDERATION

1. Is there additional information that the Metro Council needs concerning the alignment or options under consideration for inclusion in the LPA?

2. Are there issues concerning the project that have not yet been addressed?

LEGISLATION WOULD BE REQUIRED FOR COUNCIL ACTION _x_ Yes __No
DRAFT IS ATTACHED ___Yes _x__No (Staff will develop a resolution for Metro Council consideration once the project Steering Committee has made a recommendation regaring a possible Locally Preferred Alternative.)

Portland–Milwaukie
LIGHT RAIL PROJECT
www.oregonmetro.gov/southcorridor

PROJECT PARTNERS
Cities of Milwaukie, Oregon City and Portland
Clackamas and Multnomah counties
Oregon Department of Transportation
TriMet
Metro

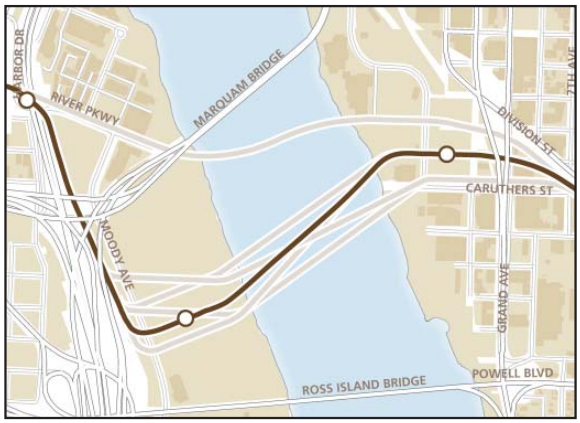
Roadmap to the Locally Preferred Alternative

Before a 2008 Portland-Milwaukie Light Rail Project Locally Preferred Alternative (LPA) can be reached, Metro Council needs recommendations on the following three options from the Steering Committee, Citizens Advisory Committee and jurisdictional partners. This document includes brief summaries of key considerations for each option.

1. **Willamette River bridge alignment**
2. **Milwaukie alignment and southern terminus**
3. **Stations**

1. The Willamette River bridge alignment recommendation

River crossings studied.



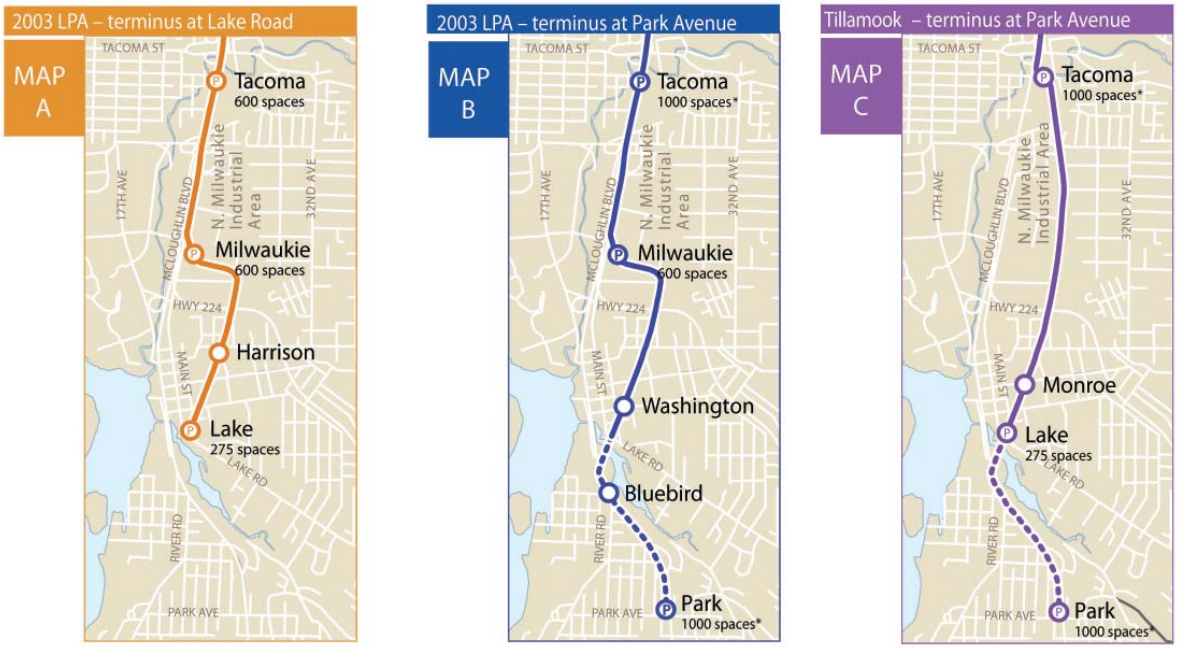
The refined Porter-Sherman crossing was recommended by the Willamette River Partnership.

The bridge across the Willamette River will carry the new MAX line, pedestrians, bicycles, buses and streetcar. In addition to the 2003 LPA bridge alignment, the Supplemental Draft Impact Statement (SDEIS) studies four alternative alignments that take into account recent and future growth in South Waterfront. The four options have similar benefits and impacts. The Willamette River Crossing Partnership convened a group of property owners and local jurisdictional representatives in a series of meetings to discuss issues specific to the South Waterfront and Central Eastside. In May 2008, the group recommended a refinement of the Porter-Sherman crossing, which borders the future OHSU campus on the west bank of the river and lands at OMSI on the east bank.

Recommended crossing compared to 2003 LPA

- Serves almost 3,000 more residents and more than 4,000 additional employees.
- Adds 1,200–1,400 light rail trips a day between downtown Portland and Milwaukie or Oak Grove.
- Reduces transit travel time from Milwaukie to South Waterfront by five minutes, but adds one to two minutes from Milwaukie to Pioneer Square.
- Has fewer noise impacts and would impact one less park.
- Is estimated to be approximately $30-34 million more expensive.
- Supports OMSI and OHSU's masterplans.
- Connects via tram to 10,000 jobs on Marquam Hill.

2. Milwaukie alignment and southern terminus recommendation



In North Milwaukie, the route could follow either the 2003 LPA on Main Street or the Tillamook Branch through an industrial area.

Benefits of 2003 LPA on Main Street (Map A)

- Facilitates access to light rail for employees of the industrial area.
- Increases transit ridership by 800 trips each day.
- Results in fewer impacts to the freight railroad.
- Provides 600 park and rides spaces at Southgate, reducing the need for, and costs associated with, an extension to Park Avenue.

Benefits of Tillamook Branch option (Map C)

- Requires fewer acquisitions or displacements of business in the industrial area.
- Results in fewer impacts to traffic and freight access for businesses in the industrial area.
- Reduces light rail travel time by one minute.
- Costs $25.6 million less to construct.**
- Avoids impacting the historic ODOT property on McLoughlin Boulevard.
- Supported by North Industrial area businesses.

The line could terminate at Lake Road in Milwaukie or extend to Park Avenue in Oak Grove, an unincorporated community in north Clackamas County.

Benefits of Lake Road terminus (Map A)

- Requires six to seven fewer full acquisitions.
- Impacts two fewer planned parks.
- Results in fewer noise and vibration impacts.
- Costs $99 to $124 million less to construct.**
- Costs $1 million less annually to operate.

Benefits of Park Avenue terminus (Maps B & C)

- Increases the number of people using transit to get to downtown Portland.
- Adds one or two more light rail stations.
- Puts a light rail station within a 1/2-mile walk for 1,100 to 1,600 more households.
- Reaches more commuters in north Clackamas County by maximizing park and ride opportunities with 800–1,100 more spaces.
- Increases ridership by 2,300 to 3,100 rides each day.
- Could avoid need for Lake Road park and ride, freeing up land in downtown Milwaukie for development.

**From the maps above, the environmental analysis identified a need for additional park and rides spaces along the alignment. A traffic sensitivity analysis indicates it is possible to include 1,250 spaces at SE Tacoma and 1,200 spaces at Park Avenue.*

***Based on 2008 dollars assuming stations and park and rides indicated in maps above.*

3. Station recommendation

Harold Street
The project could include a station at SE Harold Street in Portland. Although the station was not part of the 2003 LPA, it had been discussed in past processes and was suggested for analysis by nearby community members. This station would:

- Support local land use plans calling for higher density development in the station area.
- Increase capital costs by $6.4 million.
- Add one minute in travel time for anyone traveling past the station.
- Add few riders to the system, even with a $6 to 8 million pedestrian bridge connection with Reed College and neighborhoods to the east. (Note: pedestrian brige funding not included in project costs.)

Milwaukie and Oak Grove station choices
One or two downtown Milwaukie stations at Harrison, Monroe, Washington and/or Lake could be combined in different ways with a potential Bluebird station just south of downtown. The Bluebird station would be included as a choice only if the southern terminus is Park Avenue.

Each combination of stations comes with its own opportunities and challenges.

Next steps

Schedule of LPA Actions/Recommendations
The Portland-Milwaukie Citizens Advisory Committee (CAC) is the first of several bodies to advise Metro Council on the LPA. Jurisdictional partner meetings will occur throughout July prior to the Metro Council's action to adopt a LPA on July 24. The Steering Committee, CAC and jurisdictional partners will continue to advise the project throughout design and construction.

CAC meeting .....Thursday, May 29
CAC LPA preliminary recommendation.Thursday, June 5
CAC LPA final recommendation .....Thursday, June 12
Project Steering Committee recommendation .....Thursday, June 26
Jurisdictional partner recommendations .....July 2-17
Metro Council LPA action ..... Thursday, July 24

Preliminary Engineering
With Metro Council's adoption of the LPA, the project will apply and enter into Preliminary Engineering, where the design will proceed from five to 30 percent completion.

During Preliminary Engineering, project partners will undergo a value engineering exercise that will further refine the capital cost of the project. Depending on the terminus selection, the project may require additional resources and/or scope reductions, including:

- Reducing the number of stations
- Reducing park and ride facilities
- Selecting a more modest bridge type
- Incorporating cost-effective design refinements

RESOLUTION NO. 51-2008

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MILWAUKIE, OREGON, directing the Mayor to request the South Corridor Steering Committee accept for consideration in the 2008 Portland-Milwaukie Light Rail Locally Preferred Alternative, the City of Milwaukie's preferences regarding light rail station locations in downtown Milwaukie:

WHEREAS, the City of Milwaukie believes that the location of light rail stations in downtown Milwaukie will have a significant and lasting impact on downtown revitalization efforts and development patterns in future decades; and

WHEREAS, the City of Milwaukie believes that the location of stations in downtown Milwaukie is best determined by the City itself, as informed by its community of neighborhoods, schools, businesses and professional staff; and

WHEREAS, the City has evaluated downtown station locations at Harrison Street, Monroe Street, Washington Street and Lake Road;

NOW, THEREFORE, BE IT RESOLVED that if the Portland to Milwaukie Light Rail Project continues into downtown Milwaukie the City of Milwaukie hereby directs the Mayor, as representative to the South Corridor Steering Committee, to seek the Committee's acceptance of a single light rail station at Lake Road.

Introduced and adopted by the City Council on June 3, 2008.

This resolution is effective on June 3, 2008.

James Bernard, Mayor

ATTEST:

Pat DuVal, City Recorder

APPROVED AS TO FORM:
Jordan Schrader Ramis PC

City Attorney

Document3 (Last revised 09/18/07)