BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF AMENDING THE FY 92 UNIFIED WORK PROGRAM (UWP)	RESOLUTION NO. 92-1583A Introduced by Councilor Richard Devlin

WHEREAS, The Unified Work Program (UWP) describes all federally-funded transportation planning activities for the Portland-Vancouver metropolitan area to be conducted in FY 1992; and

WHEREAS, The FY 1992 Unified Work Program indicates federal funding sources for transportation planning activities carried out by the Metropolitan Service District, Intergovernmental Resource Center of Clark County, the Oregon Department of Transportation, Tri-Met and the local jurisdictions; and

WHEREAS, The FY 92 Unified Work Program Resolution No. 91-1407 was adopted by the Metro Council in March 1991; and

WHEREAS, Included in Metro's budget was a commitment to 1000 Friends of Oregon's LUTRAQ study to support the development of improved models linking land use, transportation and air quality; and

WHEREAS, FHWA has an interest in interactive land use/ transportation modeling which the LUTRAQ Study will assist in resolving; and

WHEREAS, Amending the FY 92 UWP will allow Metro to pass through to 1000 Friends FHWA and Tri-Met funds; now, therefore,

BE IT RESOLVED,

That the Council of the Metropolitan Service District hereby declares:

1. That the FY 92 Unified Work Program is amended to incorporate the LUTRAQ work element funded through FHWA as reflected in Exhibit A.

2. That the FY 92 UWP is amended to include a commitment of $26,500 from Tri-Met to be used with Metro and FHWA funds for a station area development market analysis and to design guidelines for station development.

3. That the Metro/1000 Friends of Oregon contract (Contract No. 901-935) in support of the LUTRAQ project is authorized to be amended consistent with these changes.

ADOPTED by the Council of the Metropolitan Service District this 26th day of March, 1992.

Jim Gardner, Presiding Officer

ACC:KT:lmk
92-1583A.RES
3-9-92

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ADOPTED by the Council of the Metropolitan Service District this _____ day of _____, 1992.

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92-1583A.RES
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TRANSPORTATION AND PLANNING COMMITTEE REPORT

CONSIDERATION OF RESOLUTION NO. 92-1583A, FOR THE PURPOSE OF AMENDING THE FY 92 UNIFIED WORK PROGRAM (UWP)

Date: March 19, 1992 Presented by: Councilor McLain

Committee Recommendation: At the March 10 meeting, the Transportation and Planning Committee voted 3-2 to recommend Council adoption of Resolution No. 92-1583A. Voting in favor: Councilors Devlin, McLain and Washington. Voting no: Councilors Bauer and Buchanan.

Committee Issues/Discussion: Andy Cotugno, Transportation Director, presented the staff report detailing the need to amend the FY 92 Unified Work Program (UWP) so that Federal Highway Administration and Tri-Met may pass-through $101,200 and $26,500, respectively, to support the regional policy aspects of the LUTRAQ project. This project has been underway since June, 1991 and this money will not change the basic work plan developed when the program was originated.

The Federal Highway Administration would like an add to the scope of work that they are willing to fund, but are not willing to specify, at this time, the nature of the expansion. This will be considered at a later date.

Keith Bartholomew, 1000 Friends of Oregon, described the process the project had undertaken so far. Funding has been done on a step by step basis. There are no role models for the program so it has progressed in fits and starts. The Federal Highway Administration, as expressed to him, is interested in working on travel demand modeling improvement, specifically in the connection between land use and transportation. This is so that needs can be better anticipated and models provided on a nationwide level that define and redefine the state of the art. They are particularly attracted to the Portland model and are interested in developing it to become a national model.

Councilor McLain complimented Council staff and 1000 Friends on the level of interaction and quality of work being accomplished.

Councilor Bauer voiced objection to the resolution because of the previous position held by 1000 Friends on the Western Bypass. He specifically objected to the use of the term "alternative" in the staff report. He believes that it is an indication that there is a preconceived position on the result of the project.

Mr. Bartholomew explained that 1000 Friends original objection to the Western Bypass was based on their belief that the issues surrounding the Western Bypass had not been studied in a broad

enough fashion. This led the group to file two laws suits. He did not believe that this previous opinion would in any way compromise the result of the decision making process on LUTRAQ. The Western Bypass may, in fact, end up being the alternative selected. He reiterated that these funds would not generally come to the region except for the LUTRAQ project.

Councilor Bauer disagreed on the issue of neutrality.

Councilor Devlin explained some of the background regarding the dispute and iterated, in view of the recent passage of the Surface Transportation Efficiency Act, that land use considerations are going to become increasingly important. The region must have a model in place to take advantage of funding opportunities from the federal government.

STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 92-1583A FOR THE PURPOSE OF AMENDING THE FY 92 UNIFIED WORK PROGRAM (UWP)

Date: February 20, 1992 Presented by: Andrew Cotugno

PROPOSED ACTION

This resolution would amend the FY 92 Unified Work Program (UWP) to allow the Federal Highway Administration (FHWA) and Tri-Met pass-through funding to 1000 Friends of Oregon to support regional policy aspects of the LUTRAQ project.

TPAC and JPACT have reviewed the FY 92 UWP amendment and recommend approval of Resolution No. 92-1583A.

FACTUAL BACKGROUND AND ANALYSIS

1000 Friends of Oregon have initiated a study to develop improved techniques to link land use, air quality and transportation planning and to apply these techniques to development of an integrated land use and transportation alternative to the Western Bypass.

The study is predominantly funded through private sources, although it is not fully funded. In addition, a number of tasks support improved planning methods for public agencies and are not specifically focused on developing alternatives to the Western Bypass. In recognition of this, Metro has committed the following:

. Cash contribution for improved models $40,000
. In-kind support to refine models. $20,000
. In-kind support to model LUTRAQ scenarios $20,000

This amendment would allow Metro to pass through FHWA and Tri-Met funds for the following: survey transportation impacts of existing land use configurations, define development building blocks, develop supportive public policies, enhance the Metro travel demand model, test scenario elements and models, test for impact on vehicle emissions, assess the infrastructure costs and transportation capital, operations and user costs, and provide a station area development market analysis. Exhibit A provides further detail for the FHWA funding.

Approval for the resolution would allow Metro to pass through to 1000 Friends $26,500 of Tri-Met funds and $101,200 of FHWA funds with the FY 92 UWP and Metro budget revised accordingly.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 92-1583A.

EXHIBIT A

February 20, 1992

Proposal: FHWA Funding in Support of Making the Land Use, Transportation, Air Quality Connection

1000 Friends of Oregon requests FHWA funding for "Making the Land Use, Transportation, Air Quality Connection" (LUTRAQ), a national demonstration project designed to determine the impacts of alternate land use and transportation plans on future land use and transportation patterns, and on future air quality conditions. 1000 Friends seeks funding for a number of tasks and subtasks specified in an existing LUTRAQ work program.

Overview

This proposal includes an outline of the work we feel will most effectively promote the overall success of the LUTRAQ project, and ensure that the project results best meet FHWA's objectives. The proposed work is generally listed in priority order, as 1000 Friends and the LUTRAQ consultant team currently understands the combination of FHWA's and the project's combined priorities. Also, the initial estimate of the costs required to complete each work item is provided. We expect these priorities to be revised in future discussions between FHWA, state and local agencies, our consultants, and ourselves. In addition, new work items may be added based on these discussions. The purpose of this draft proposal is to provide a framework for these discussions.

Table 1 provides a prioritized listing of the work we propose for FHWA funding. Each area of work is referenced with a "Work Item" number and a "Task/Subtask" number. The latter number is for purposes of cross-referencing work items with relevant portions of the existing LUTRAQ work program (dated June 2, 1991).

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Table 1. Proposed Work Items in Priority Order

Work Item	Description	Tasks/ Subtasks	Estimated ($x1,000 ± 25%)
1.0	Portions of the existing LUTRAQ work program:		
1.1	Survey transportation impacts of existing land use configurations	C.7	$21
1.2	Replicate identified land use and design features:		
1.2.1	Define development building blocks	C.1	$15.7
1.2.5	Develop supportive public policies	C.4	$10.3
1.3	Enhance the metro travel demand model (EMME/2)	D.1	$14.2
1.4	Quantify the alternative scenario:		
1.4.1	Test the scenario elements	E.5.A	$10
1.4.2	Test the models	E.5.B	$5
1.4.3	Vehicle emissions	E.6.B	$15
1.4.4	Assess the infrastructure costs and transportation capital, operations, and user costs	E.9	$10
	TOTAL		$101,200

Work Item 1.1/Subtask C.7: Survey of Transportation Impacts of Existing Land Use Configurations

The primary focus of Work Item 1.1 is to identify a number of existing suburban land use patterns and development designs that generate fewer than average single occupancy automobile trips and/or greater than average walk, bicycle, transit, and/or carpool trips. For each identified development pattern, existing data on mode split and trip length, as well as other data useful to the enhancement of transportation forecasting models will be examined. Controlling for as many other variables as practicable, land use and design features of the development patterns most responsible for the differing travel behavior will be identified.

Work Item 1.2: Replication of Identified Land Use and Design Features

Work Item 1.2 will focus on replicating the features identified in Work Item 1.1 on the ground in a real, existing suburban context. The context involved is the suburban Washington County portion of the Portland, Oregon metropolitan region, the location of a current proposal for a bypass freeway.

The bypass proposal is based on traffic generation rates created by the continuation of typical suburban development patterns. Using the features identified in Work Item 1.1 an alternate future development scenario will be created for the same geographic area.

The development of the alternate scenario will include the following steps:

Work Item 1.2.1/Subtask C.1: Defining Development Building Blocks

In this step, the fundamental programmatic assumptions derived from Work Item 1.1 will be transferred to a development pattern prototype that can be applied to various settings in the study area. This prototype will consist of a pedestrian-scale land use program, including quantity, mix and type of housing, services, jobs, and retail, and a typical internal street system. Criteria will also be developed for site selection relative to proximity to transit.

Work Item 1.2.5/Subtask C.4: Develop Supportive Public Policies

A combination of land use and non-land use oriented policies will be developed that support the alternate land use scenario. Various demand management strategies, parking management or pricing schemes, and other related policies will be explored and included as appropriate.

Work Item 1.3/Subtask D.1: Enhancing the Metro Travel Demand Model (EMME/2)

To ensure that the alternate scenario developed in Work Item 1.2 is accurately quantified, Metro's existing travel demand forecasting model (EMME/2) will be enhanced to:

- calculate changes in the percentages of vehicular travel in peak periods

to and from heterogeneous transit and pedestrian-oriented development areas;

- o include a transit serviceability index in the models used to predict transit ridership levels and mode of access to transit, reflecting the ease of accessing transit by walking or bicycling;
- o predict bicycle usage as a potential primary travel mode;
- o quantify changes in trip generation rates and automobile ownership levels to account for multi-use developments, difference by types of housing, and various development densities;
- o evaluate the impacts of excess transit travel time (due to walking, waiting, and transferring) on transit ridership; and
- o predict reductions in vehicular travel due to employer-based trip reduction strategies.

Sixty percent of this work has been funded through a grant from EPA's Climate Change Division. The remaining 40%, however, is still unfunded.

Work Item 1.4: Quantify the Alternative Scenario

Work Item 1.4 includes four unfunded quantification items from the original LUTRAQ work program:

Work Item 1.4.1/Subtask E.5.A: Test the Scenario Elements

As outlined in Work Item 1.2, the alternate land use scenario will be supported by a number of transit/roadway improvements and TDM policies. Each of these three primary elements (land use/design, transportation, TDM) will have a different qualitative and quantitative impact on land use, travel demand, air quality, and quality of life. By isolating and pairing these package elements for simulations with the improved computer modeling system, it will be possible to measure the relative importance of particular elements. This information could be very important in determining the relative effectiveness of potential implementation strategies.

Work Item 1.4.2/Subtask E.5.B: Test the Models

The LUTRAQ project includes two categories of improvements to the art of transportation/land use modeling. The first, as outlined in Work Item 1.3, will greatly enhance travel demand forecasting to account for the differing trip generation rates and mode splits of various development patterns. The second will link this enhanced system with an integrated land use model. To evaluate comprehensively the relative importance of each of these improvements, the alternate scenario from Task 2 will be run first through the unenhanced, unlinked travel demand model, and second through the enhanced but unlinked travel demand model. Comparing

the output of these two runs to the output of the funded LUTRAQ task that incorporates both the enhanced travel demand model and the linked interactive land use model (Subtask E.3) will indicate the relative importance of each category of modeling improvements. This information could be important in promoting improved and integrated land use/transportation policy making throughout the U.S.

Work Item 1.4.3/Subtask E.6.B: Vehicle Emissions

Through the work described in the previous two paragraphs includes calculations of travel demand and land use. Under this paragraph, each of the computer simulations from the prior paragraphs will also be tested for their impacts on vehicle emissions. This analysis will utilize the most recent version of the MOBILE air quality modeling system. If necessary, the "bag 1" cold start and "bag 3" hot soak emissions data incorporated into MOBILE 4.1 (and MOBILE 5) will be used separately so that trip-based emissions can be estimated as accurately as possible with the current configuration of the MOBILE model.

Work Item 1.4.4/Subtask E.9: Assess the Infrastructure Costs and the Transportation Capital, Operations, and User Costs

As public infrastructure costs continue to rise and government budgets become further stretched, the relative cost efficiencies of alternative methods of solving problems is assuming an extremely important role in public decision making. Given this enhanced, three alternatives (no-action, bypass, alternate scenario) will be measured for their respective general infrastructure costs, transportation infrastructure costs, and user costs.