

**METRO**

MEETING: Metro Solid Waste Advisory Committee

DAY: Wednesday

DATE: April 20, 1994

TIME: 8:30 - 10:30 A.M.

PLACE: Metro Headquarters, 600 N.E. Grand Avenue
Room 370

1. Approval of Minutes

Ruth McFarland

2. Updates

Bob Martin

A. Amendment to the disposal contract with Oregon Waste Systems

B. Resolution 94-1941: Revising Chapter 5 (Facilities) of the Regional Solid Waste Management Plan and Adjusting Tonnages at Metro Facilities. This resolution authorizes the development of a plan to adjust tonnage levels between Metro Central and Metro South, for the purpose of reducing projected annual tonnage levels at Metro South Station by a minimum of 60,000 tons. The resolution states that the tonnage adjustment shall be implemented by July 1, 1994. The resolution was approved by the Council Solid Waste Committee and will be on the agenda for the April 14 Council meeting.

3. Regional Solid Waste Management Plan

Terry Petersen

A. Disaster Debris Management Plan. Update on the April 13 special SWAC meeting.

B. Household hazardous waste. On April 5 the Budget Committee of the Metro Council reviewed the proposed solid waste budget and approved the following budget note to be included with the final 94/95 budget: "The Solid Waste Department shall develop a plan for providing year round HHW waste collection services to those portions of western Washington County and east Multnomah County that are not conveniently located near existing permanent collection sites. This Plan shall be presented for Council approval prior to January 1, 1995." Working with SWAC, Metro staff will: (1) map current service areas of the Metro Central and South HHW facilities, (2) estimate costs of service options for the east and west regions, and (3) develop a draft implementation plan.

C. Tonnage Forecast (1995-2005). Doug Anderson will present a 10-year forecast of waste generation to be used in developing an integrated waste management plan for the region. SWAC will review this forecast and be prepared to make a vote of approval at the May 18 SWAC meeting.

D. Management Alternatives (1995-2005). Staff will distribute a list of major options for managing waste during the next 10 years. SWAC will review this list and help specify details of each option. The final "short list" will then be included in the cost-benefit analysis.

4. Other Business/Citizen Communications

Ruth McFarland

5. Adjourn

Ruth McFarland

Enclosure: Resolution 94-1941

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BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF REVISING)	RESOLUTION NO. 94-1941
CHAPTER 5 OF THE REGIONAL SOLID)	
WASTE MANAGEMENT PLAN AND)	Introduced by the Council
ADJUSTING TONNAGES AT METRO)	Solid Waste Committee
FACILITIES)	

WHEREAS, The Composter facility is no longer operational; and

WHEREAS, A number of new processing and recycling facilities addressing specific waste streams will likely be sited; and

WHEREAS, The organic waste stream study may produce recommendations affecting facility configuration and development; and

WHEREAS, Major industrial waste generators may develop new non-Metro-related disposal options; and

WHEREAS, Review of the solid waste revenue system may produce recommendations affecting facility financing; and

WHEREAS, Tonnage adjustments between existing facilities are needed to maximize their efficient and cost-effective operation; now, therefore,

BE IT RESOLVED,

1. That the Metro Council authorizes the revision of Chapter 5 and such other elements of the Regional Solid Waste Management Plan and Metro Code as may be necessary to prepare a new facility plan. This revision shall address Metro's regulatory relationship with existing and potential new types of disposal and processing facilities and the nature and configuration of the Metro region's solid waste disposal and processing system.

2. That the Metro Council authorizes the development of a plan to adjust tonnage levels between Metro Central and Metro South

**METRO**

DATE: April 28, 1994

TO: SWAC Members and Alternates
Solid Waste Managers

FROM: Terry Petersen, Planning & Technical Services Manager

RE: SWAC Workbook

The attached materials were distributed and reviewed at the April 20th SWAC meeting. Please insert them into the SWAC Workbook Section I - System Overview: Forecast (RSWMP - 1994 Update Facilities and Waste Reduction.

Because of time constraints, the presentation of Section II - Alternatives, has been rescheduled to occur at the May meeting.

TP:jc

Attachment

cc: Bob Martin, Solid Waste Director
Council Solid Waste Committee Members
John Houser, Council Analyst

Facilities Plan Update

Base Case Forecast to 2005

The attached materials document a base case forecast of tonnage for the facilities planning element of the 1994 RSWMP Update. This forecast was presented by Metro staff to the Solid Waste Advisory Committee at its April 20, 1994 meeting. The forecast suggests that the Portland region may face the task of managing as much as 325,000 tons of new waste annually by the year 2005.

This number is not a "most likely" forecast. It is a high scenario, based on regional growth in the absence of any change in solid waste facilities, programs, or management practices. Metro staff suggests that SWAC adopt a high forecast for the purpose of planning contingent solid waste capacity. This means that, although the forecast may or may not be realized, the facilities plan would be written to accommodate up to a "worst case" waste scenario by the end of the planning horizon. With monitoring of the actual need for facilities over time, elements of the plan can be withheld or implemented as necessary.

This forecast was developed from the same short-run model as was used for the 1994-95 solid waste budget. The budget model was simply extended out to a 10-year horizon. As this model diminishes the effect of potential changes in the generation and management of solid waste*, its forecasts are likely to overstate waste deliveries when drawn out over the long run. The model is documented in Appendix A of the March 1994 SWIS Report.

* Examples include: waste prevention programs and activities which could reduce generation in the future, such as product and packaging lightening; new recycling programs which prevent discards from entering the solid waste stream, such as a comprehensive curbside program for non-residential generators; or new materials recovery facilities.

Metro Budget Model

Steps

- 1. Forecast total waste deliveries**
- 2. Forecast "wet" and "dry" shares of waste**
- 3. Allocation of "wet" and "dry" tonnage to specific facilities**
- 4. Estimation of facility-specific revenue tons**

April 20, 1994 Presentation to SWAC Based on Running Steps 1 and 2 to 2005

Description

- A "top-down" approach**
- Steps 1 and 2 are econometric models**
- The variable of interest is "explained" by several independent--or "input"--variables**

Metro Budget Model

Regional Tonnage Model (Step 1)

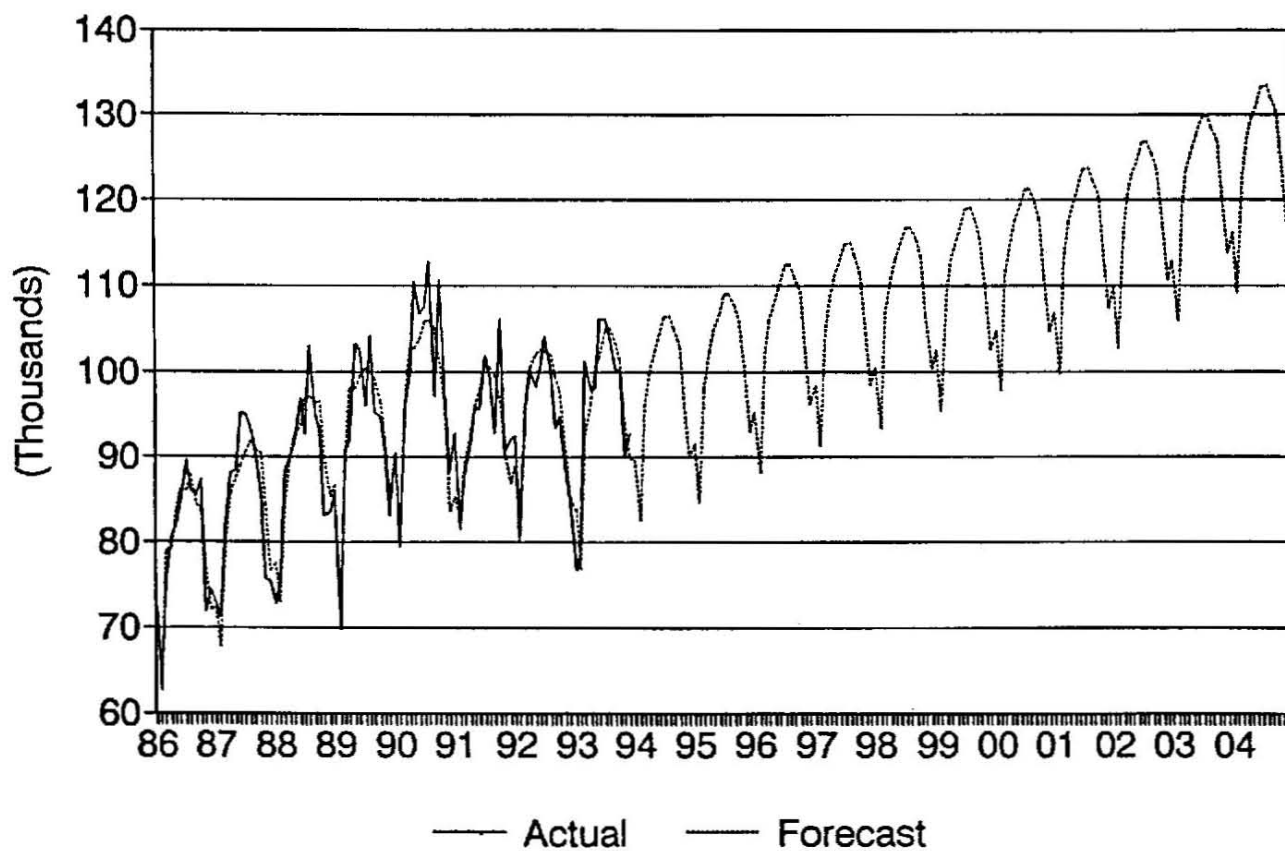
- **Forecasts total waste deliveries to all facilities, by month**
- **A demand equation for solid waste disposal services**
- **Based on four explanatory concepts:**
 1. *Long-run* activity effects lasting many years
 2. *Medium-run* effects related to the business cycle
 3. *Short-run*, seasonal, effects
 4. *Price* (tip fee) effects

Input Variables for each Explanatory Concept

- ***Long-Run:*** Total Regional Employment
- ***Medium-Run:*** Single and Multifamily Housing Starts* (Change in Housing Stock)
- ***Short-Run:*** Average Monthly Temperature (Degree-Days)
- ***Price:*** Metro Tip Fee* (Deflated to Constant 1987 Dollars of Purchasing Power)

*** These variables enter the model as lagged moving averages.**

Regional Direct Haul Tons Monthly Deliveries, 1986-2005



Metro Budget Model

Wet/Dry Share Model (Step 2)

- **Forecasts the proportion of waste deliveries mixed-putrescible facilities, by month**
- **Based on two explanatory concepts:**
 1. **Short-run, seasonal, effects**
 2. **Price (tip fee) effects**

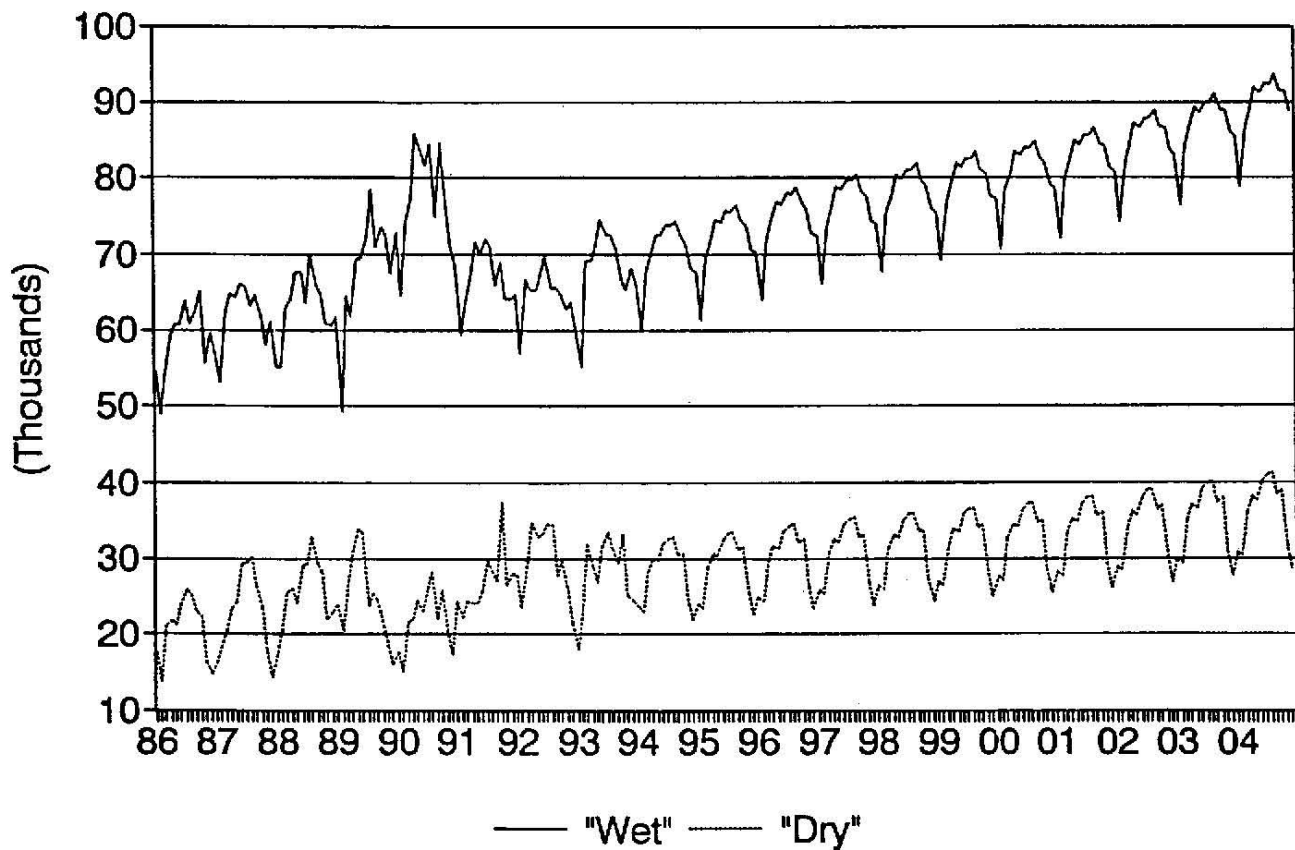
Input Variables for each Explanatory concept

- ***Price:*** Metro Tip Fee (Deflated to Constant 1987 Dollars of Purchasing Power)
- ***Short-Run:***
 1. **Average Monthly Temperature**
 2. **Monthly "Dummy" Variables**

Workbook Section: 1. System Overview
Forecast

"Wet" & "Dry" Monthly Direct Haul Tons

Actual 1986-1993 Forecast 1994-2005



Metro Budget Model

Strengths

- **Monthly Forecasting Resolution**
- **Very Fast Turnaround**
- **Explicitly Incorporates Major "Drivers" of the System**

Limitations

- **Short-Run Model Designed for 1-Year Ahead Forecasts**
 - **Forecasts Based on "Status Quo" System
(i.e. No Major Changes in Programs or Facilities)**
 - **Limited Use in Scenario Evaluation**

Base Case Forecast to 2005

**If there is no significant change in the system,
The following additional tons are projected for the
region by Year 2005:**

"Wet" Waste: 230,000 additional tons

"Dry" Waste: 95,000 additional tons

Total: 325,000 additional tons

**The figures above are based on a "status quo" assumption about regional
waste management as of January 1994.**

**"Wet" waste: mixed putrescible waste requiring disposal in a Subtitle D
landfill.**

**The definition of "wet" waste is based on its 1993 composition, and may
include "dry" wastes not requiring Subtitle D landfilling if separated from
putrescibles.**

Workbook Section: 1. System Overview
Forecast

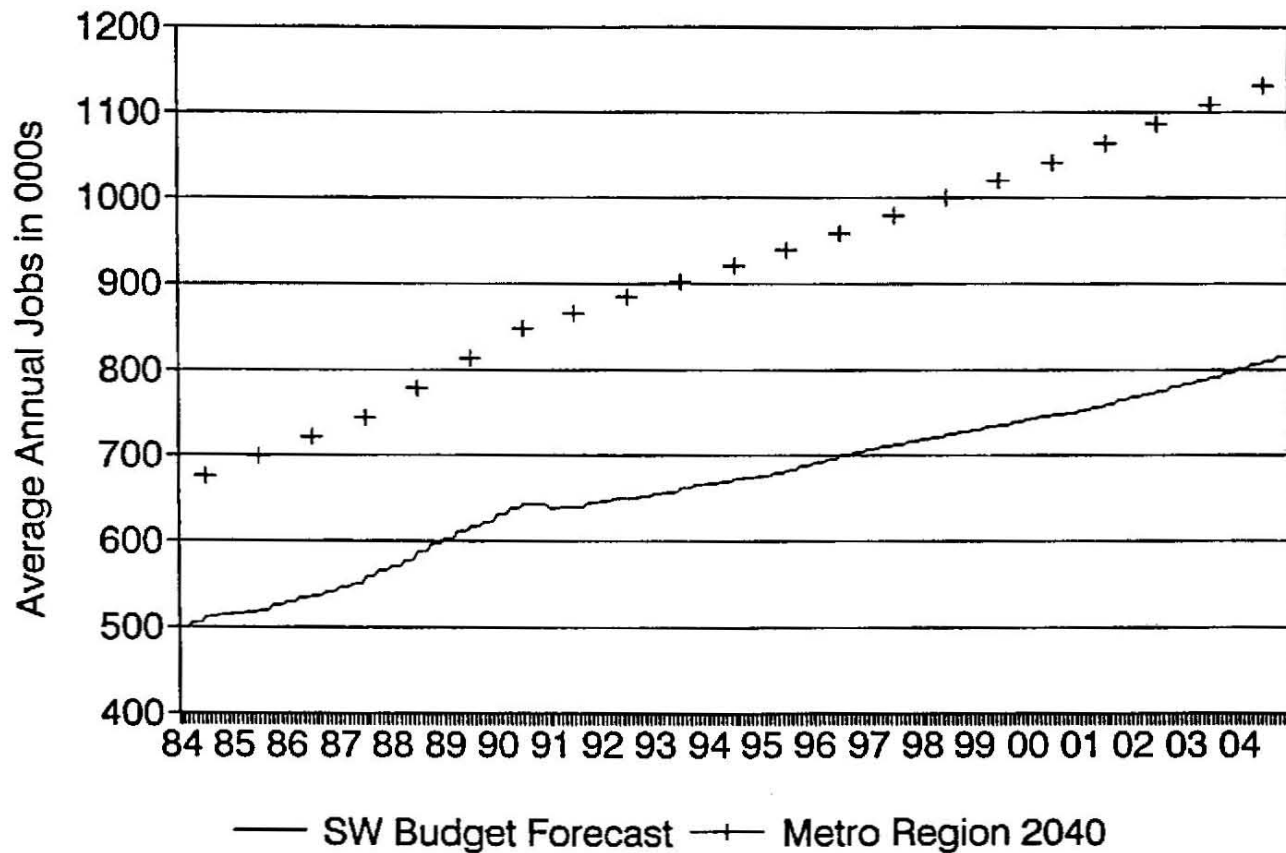
Metro Budget Model
Base Case Projections to 2005
Regional Direct Haul Solid Waste
Annual Projections and Difference from Year 2005

Year	"Wet" Waste		"Dry" Waste		Total Regional Waste	
	Forecast	From 2005	Forecast	From 2005	Forecast	From 2005
1994	841,924	230,886	339,425	93,558	1,181,349	324,445
1995	864,933	207,877	346,799	86,185	1,211,732	294,062
1996	893,628	179,182	358,451	74,533	1,252,079	253,715
1997	916,125	156,685	367,816	65,168	1,283,941	221,853
1998	933,407	139,403	375,056	57,928	1,308,463	197,331
1999	951,856	120,954	382,738	50,246	1,334,594	171,200
2000	970,422	102,388	390,504	42,480	1,360,926	144,868
2001	990,415	82,395	398,894	34,090	1,389,309	116,485
2002	1,016,947	55,863	409,966	23,018	1,426,912	78,882
2003	1,043,623	29,187	420,996	11,988	1,464,619	41,175
2004	1,072,810	0	432,984	0	1,505,794	0

Note: Figures may not exactly equal SWIS reports due to different accounting for source-separated recyclables at Wastech.

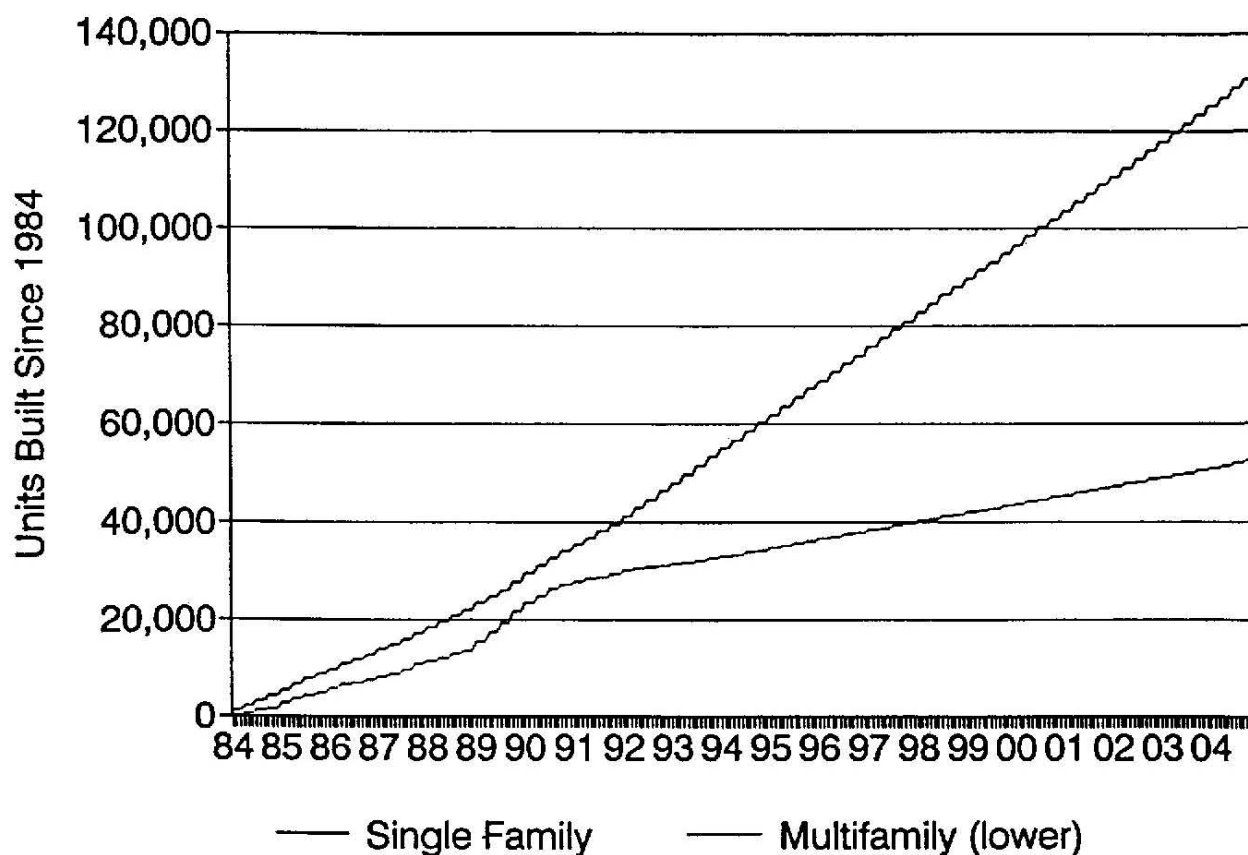
Forecast Inputs: Employment

Actual 1984-1993 Forecast 1994-2005



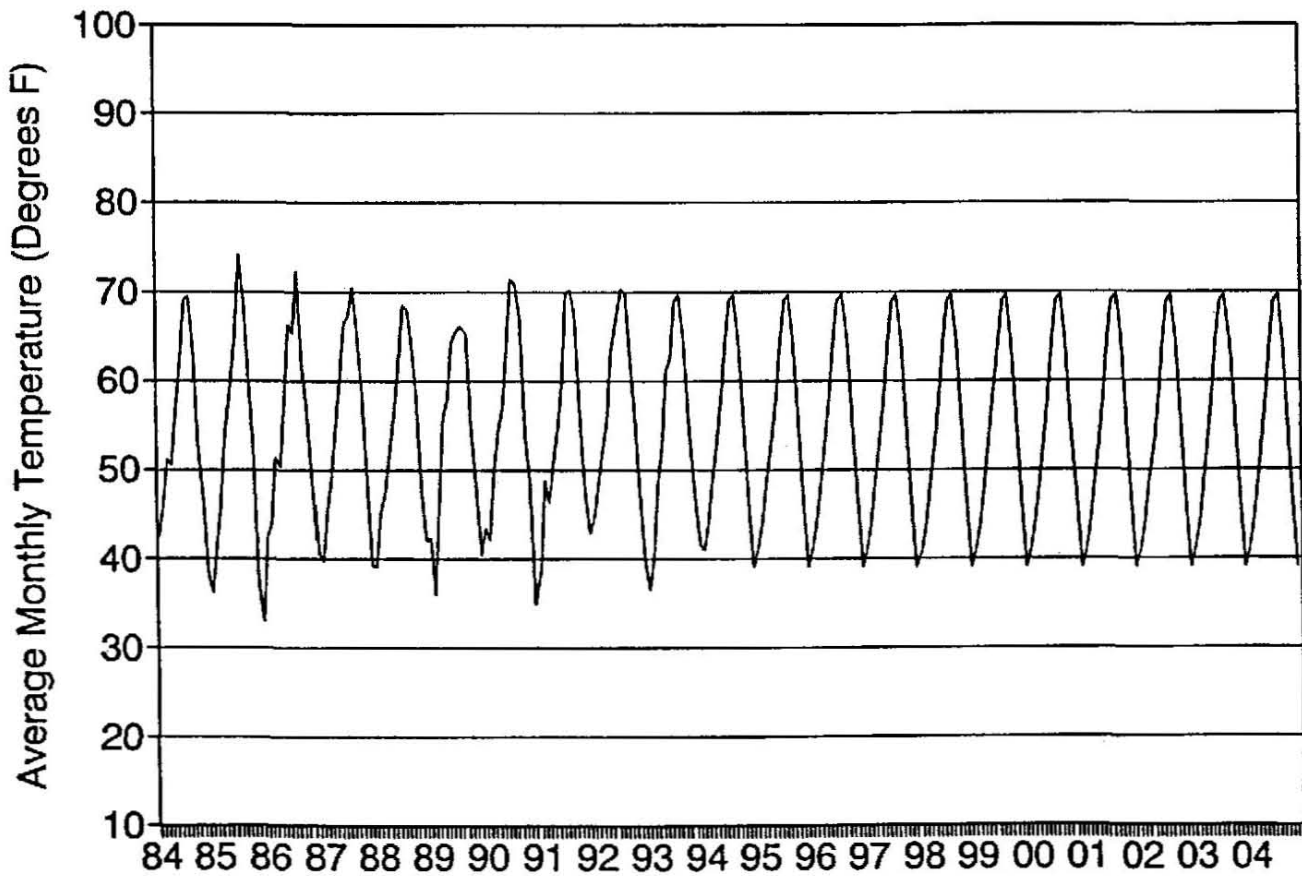
Forecast Inputs: New Housing Stock

Actual 1984-1993 Forecast 1994-2005



Forecast Inputs: Temperature

Actual 1984-1993 Forecast 1994-2005



Forecast Inputs: Metro Tip Fee

Actual 1984-1993 Forecast 1994-2005

