



Board of Directors Meeting
October 11, 2006

Level of Service, Rates, and Rate Structures

Jon Sorensen
Bob McGregor

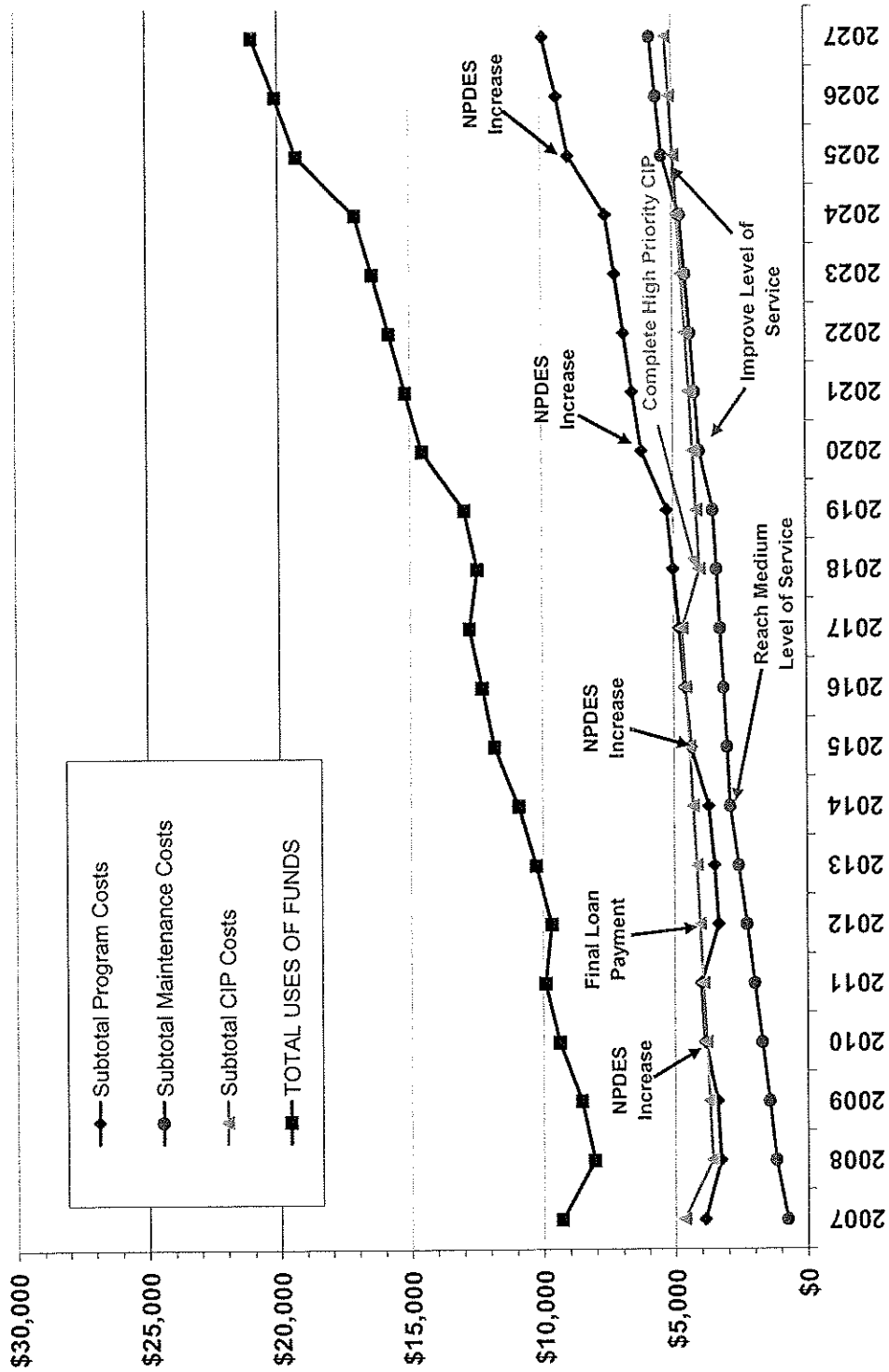
Proposed Program

Recommended Level of Service

- **Capital**
 - Critical CIP: \$30 Million Constructed in Years 1 - 10
 - Medium CIP: \$20 Million Constructed in Years 11 – 20
 - Emerging Needs: \$0.75 Million per year for yet to be identified needs for emergencies and new master plans
- **Maintenance**
 - Low Level for the first 2 years
 - Increase 25% after additional 5 years to reach Medium Level of Service
 - Increase additional 50% after additional 10 years to further improve service
- **Program**
 - Staff levels remain constant
 - NPDES Program needs increase 15% once every 5 years with each NPDES Permit renewal
- **Assumptions**
 - Inflation 3% per year
 - Salary and benefits costs increase 5% per year

Total Uses of Funds Recommended Program

Total Uses of Funds
Defined Level of Service with Supporting Rate Assumptions
Southeast Metro Stormwater Authority
(1,000s)



Rates to Support Recommended Program

Option A

- **Initial Rate**
 - \$6.50 per month SFR detached, 3,300 sq ft impervious
- **Increases**
 - 3% inflation per year
 - 2% per year to support program improvements
- **Assumptions**
 - 1.75% growth in Impervious area (Rate Base) per year
 - 1.00% delinquent accounts
 - 2.00% credits

Rate

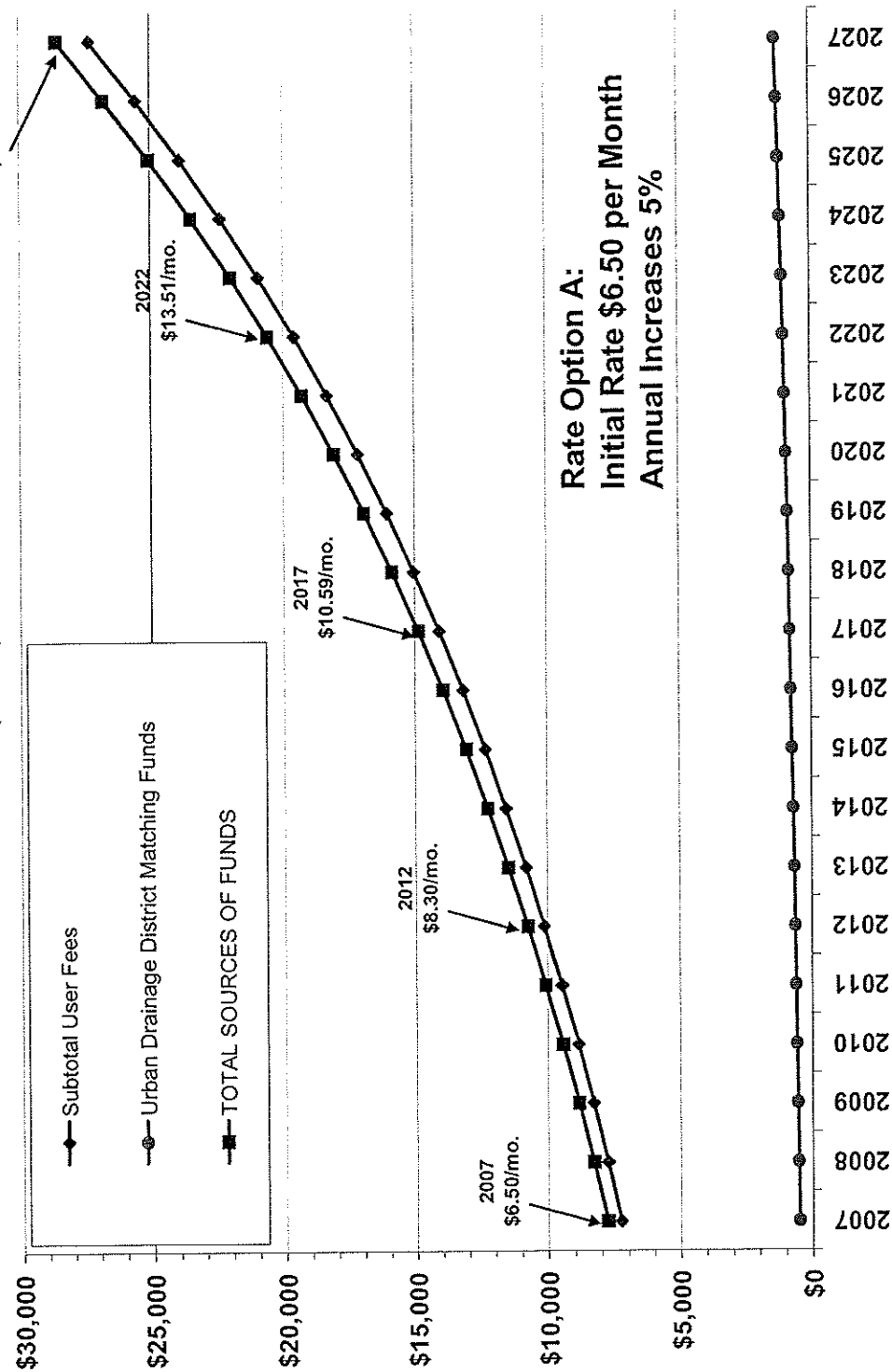
Option A: Initial rate \$6.50 per month, increase 5% per year

Total Sources of Funds Rate Option A

Defined Level of Service with Supporting Rate Assumptions

Southeast Metro Stormwater Authority

(1,000s)



Rate

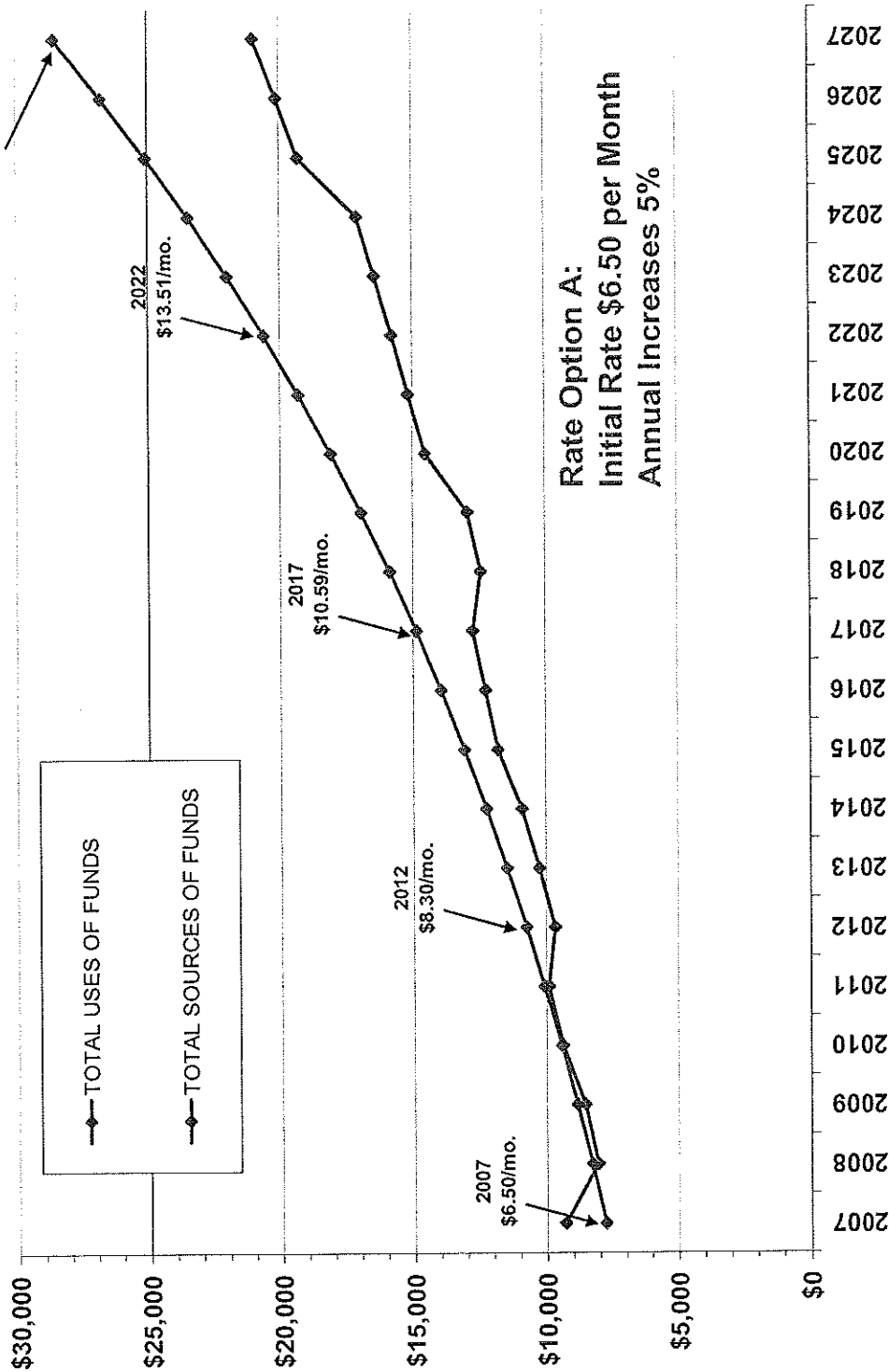
Option A: Initial rate \$6.50 per month, increase 5% per year

Total Uses and Sources of Funds Rate Option A

Defined Level of Service with Supporting Rate Assumptions

Southeast Metro Stormwater Authority

(1,000s)



Rates to Support Recommended Program

Option B

- **Initial Rate**
 - \$7.00 per month SFR detached, 3,300 sq ft impervious
- **Increases**
 - None
- **Assumptions**
 - 1.75% growth in Impervious area (Rate Base) per year
 - 1.00% delinquent accounts
 - 2.00% credits

Rate

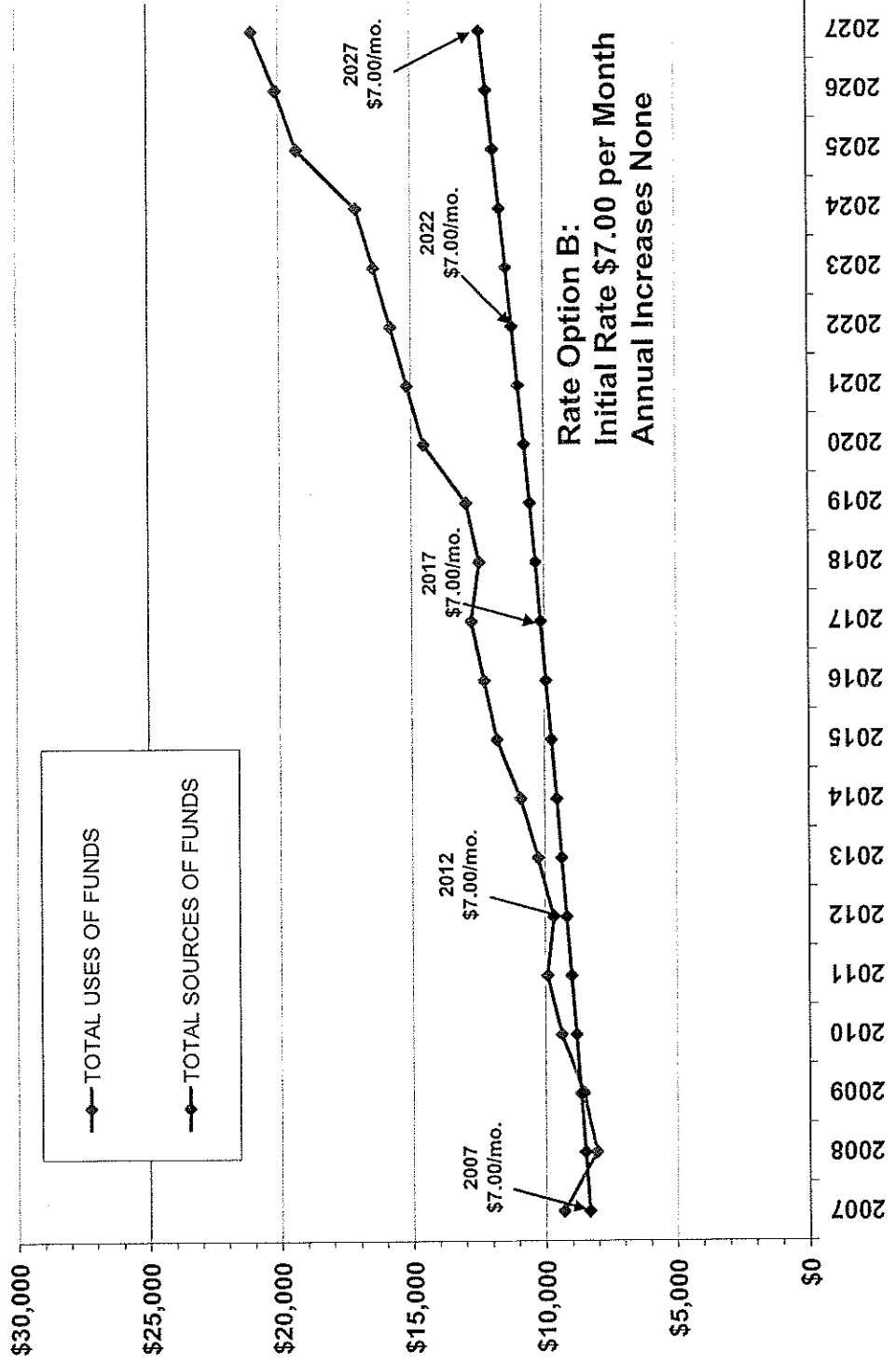
Option B: Initial rate \$7.00 per month, no increase

Total Uses and Sources of Funds Rate Option B

Defined Level of Service with Supporting Rate Assumptions

Southeast Metro Stormwater Authority

(1,000s)



Rates to Support Recommended Program

Option C

- **Initial Rate**
 - \$7.00 per month SFR detached, 3,300 sq ft impervious
- **Increases**
 - 9% inflation every 3 years
 - 6% to support program improvements every 3 years
- **Assumptions**
 - 1.75% growth in Impervious area (Rate Base) per year
 - 1.00% delinquent accounts
 - 2.00% credits

Rate

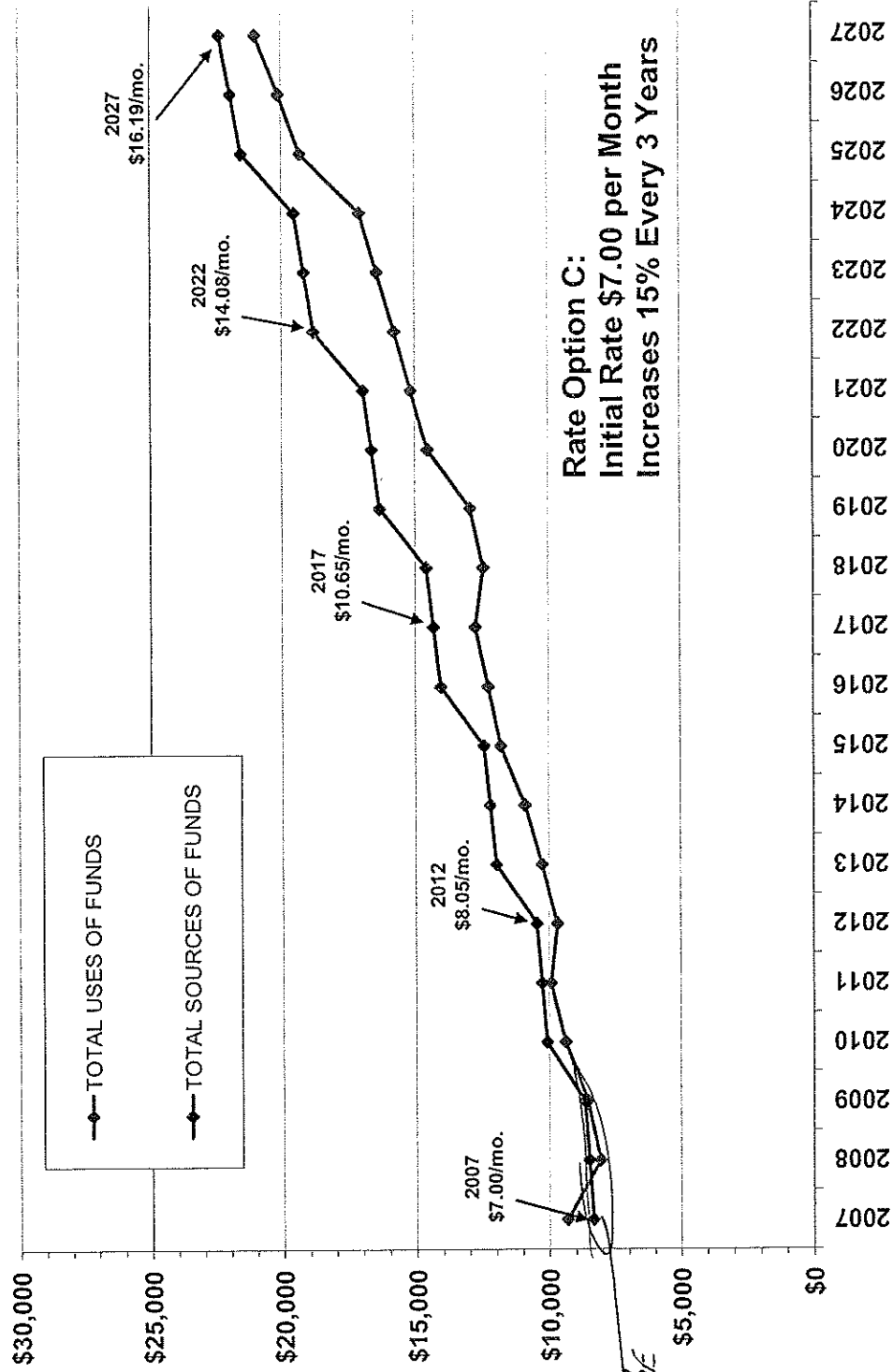
Option C: Initial rate \$7.00 per month, increase 15% every 3 years

Total Uses and Sources of Funds Rate Option C

Defined Level of Service with Supporting Rate Assumptions

Southeast Metro Stormwater Authority

(1,000s)



*Blue should be
FLAT
??*

Rates to Support Recommended Program

Option D

- **Initial Rate**
 - \$7.00 per month SFR detached, 3,300 sq ft impervious
- **Increases**
 - 15% inflation every 5 years
 - 10% to support program improvements every 5 years
- **Assumptions**
 - 1.75% growth in Impervious area (Rate Base) per year
 - 1.00% delinquent accounts
 - 2.00% credits

Rate

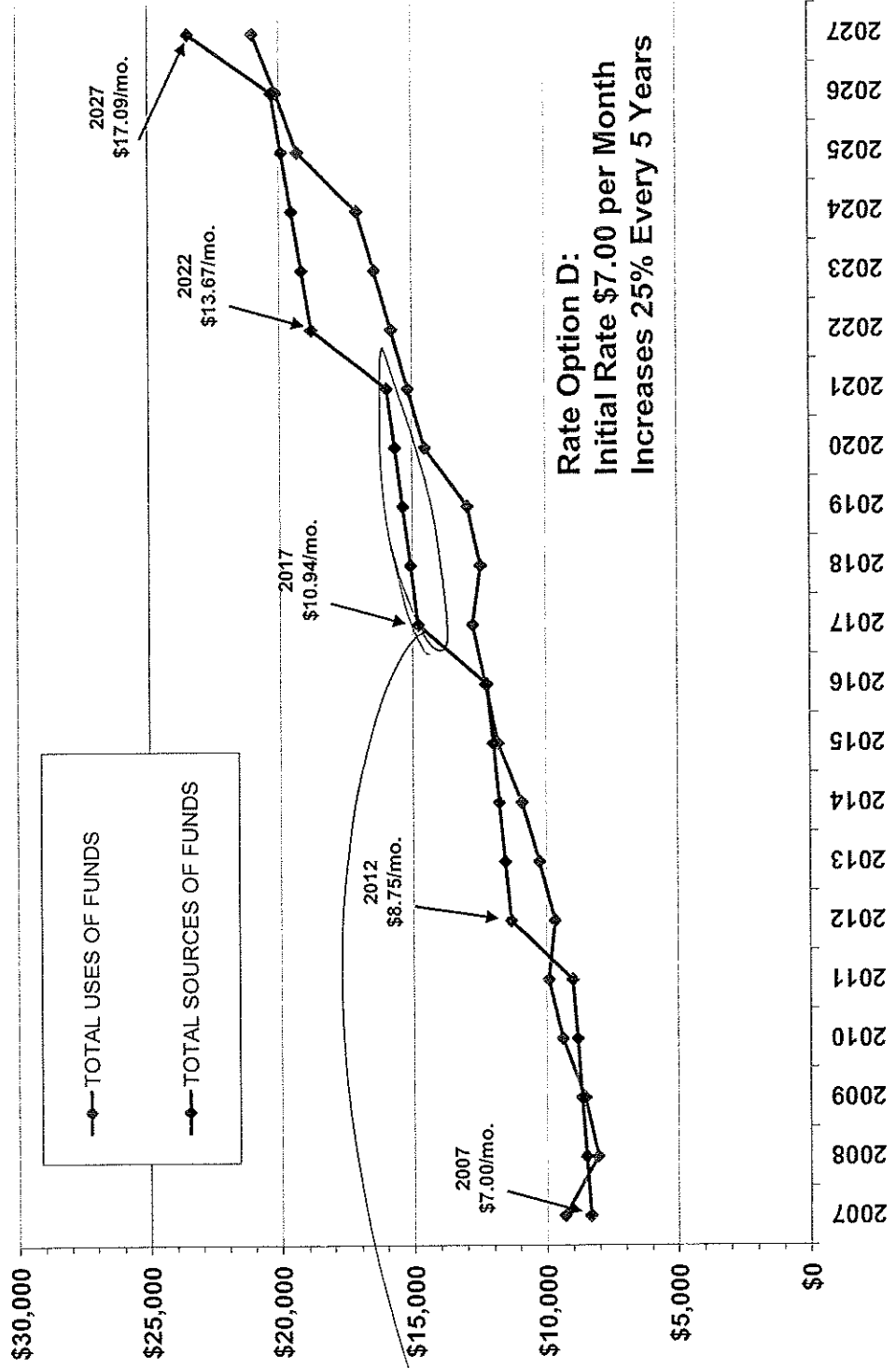
Option D: Initial rate \$7.00 per month, increase 25% every 5 years

Total Uses and Sources of Funds Rate Option D

Defined Level of Service with Supporting Rate Assumptions

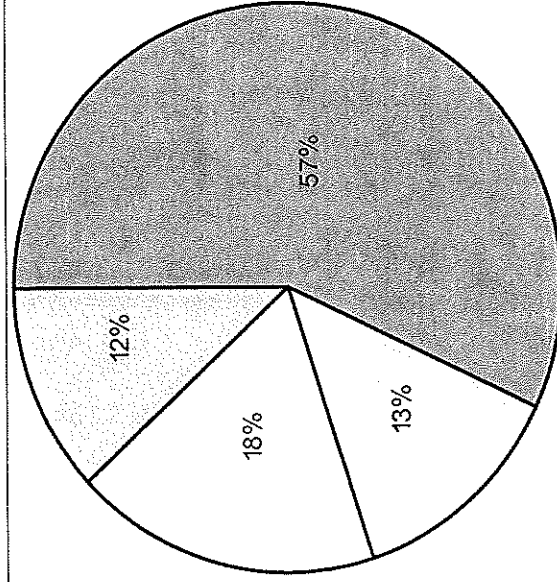
Southeast Metro Stormwater Authority

(1,000s)



Rate Structure Options

Rate Structures in USA



■ Impervious Area

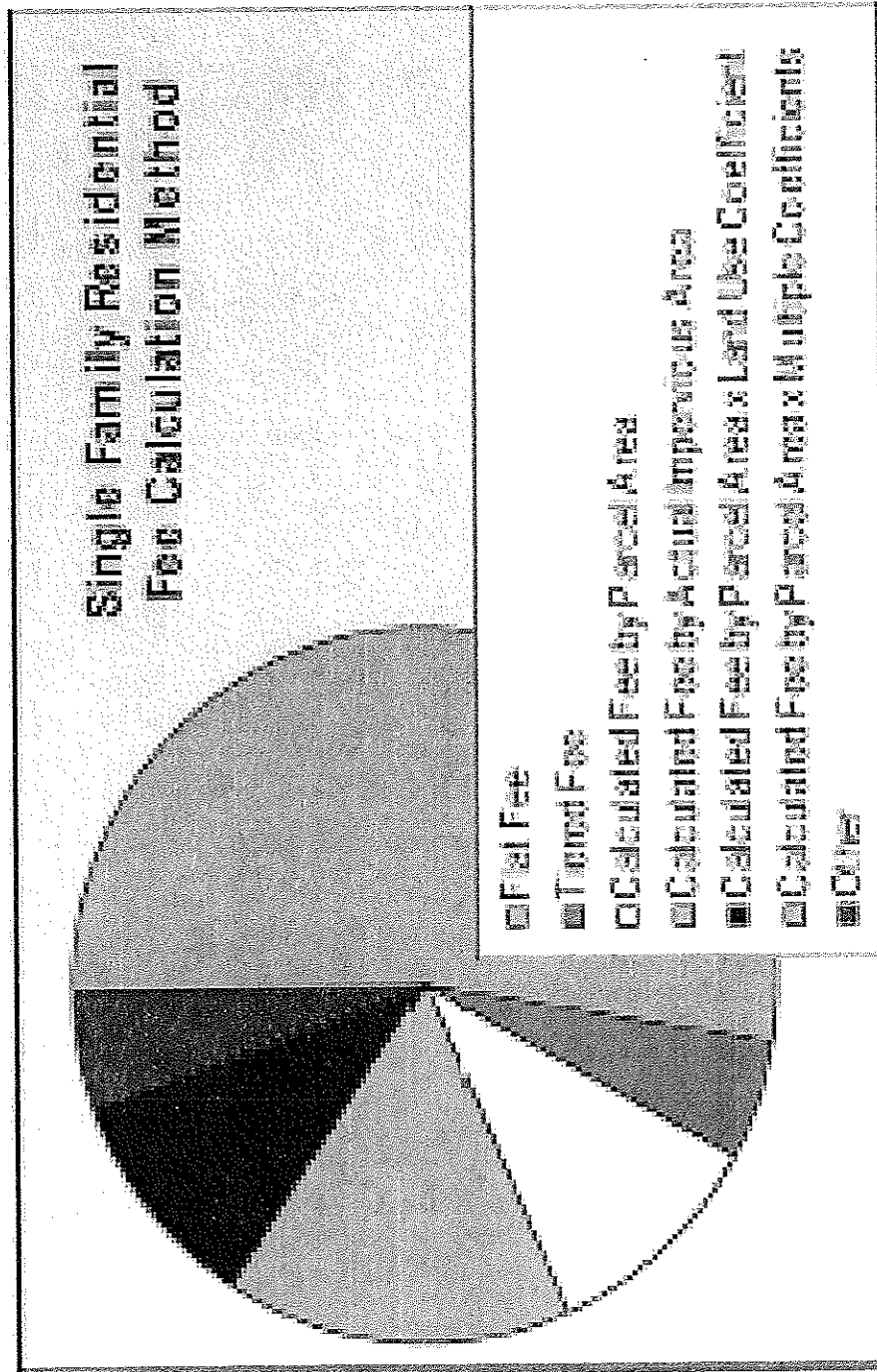
□ Gross area with runoff or intensity of development factor

□ Both impervious and gross areas

□ Other (e.g., number of rooms, water use, flat fee)

Rate Structure Options

Rate Structures in Colorado



Rate Structure Options

Impervious Area, ACWWA

- **Arapahoe County Water and Wastewater Authority**
 - Single Family Residential (detached): Flat Rate \$5.98 per month
 - Commercial: \$2.69 base rate + \$0.000864 per square foot impervious area

Rate Structure Options

Impervious Area

- **Single Family Residential (detached)**
 - *3 Tiered rate*
 - *Actual impervious area*
- **Non Single Family Residential**
 - *Charge for amount of impervious area*
 - *Proportional to median single family residence 3,300 sq ft impervious area*

Rate Structure Options

“Issues” with Impervious Area Rate Structures

- Does not account for increased runoff from parcels that have high impervious percentages (60% or more).

These parcels are undercharged.

- Does not account for decreased runoff from parcels that have low impervious percentages (30% or less).

These parcels are overcharged.

Rate Structure Options

Percent Impervious Rate Structures

- Can combine Single Family Residential (detached) with Multi Family, Commercial, and Tax Exempt Properties
- Rate is 40% lower if under 30% impervious*
- Rate is 20% higher if over 60% impervious*

* Rate differences are consistent with Denver rate structure and increased peak runoff rates with increasing percent impervious area

Rate Structure Options Impervious Area or Percent Impervious Area

Impervious Area

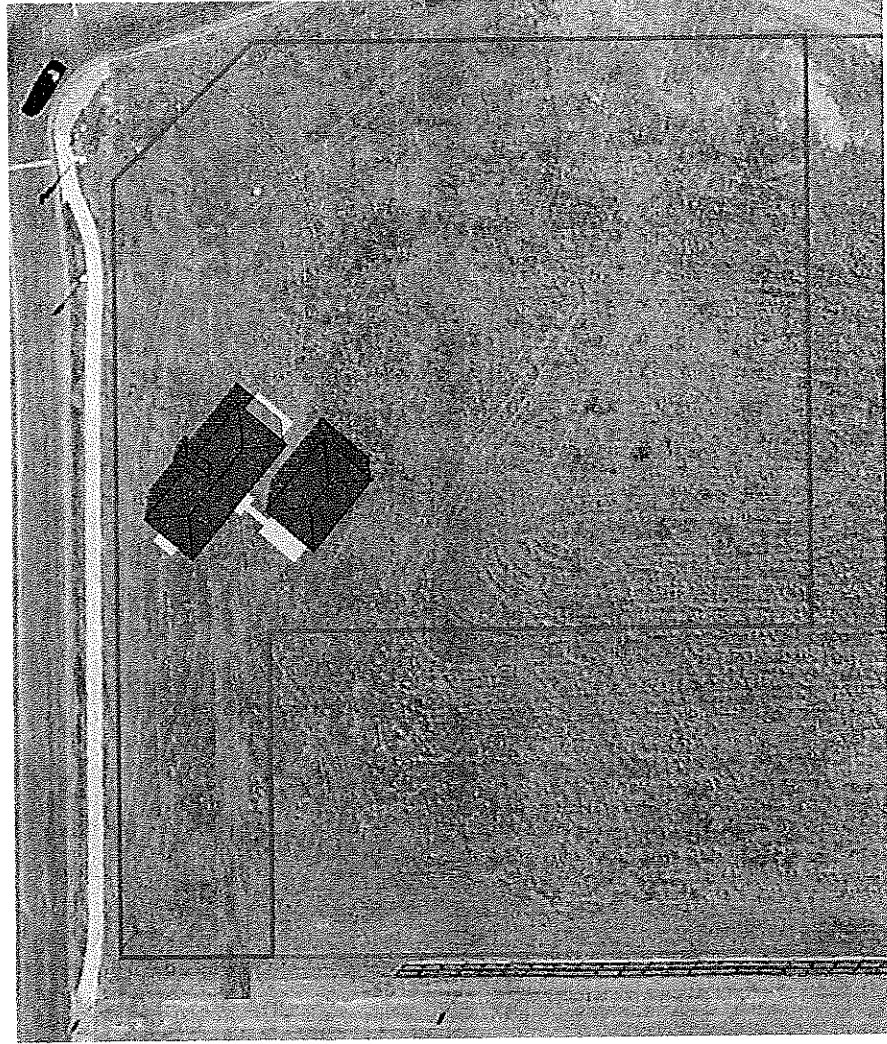
Impervious Area Sq Ft	Monthly Fee
2,500	\$4.92
3,300	\$6.50
4,900	\$9.65
5,900	\$11.62
11,500	\$22.65
25,000	\$49.24
65,000	\$128.03
175,000	\$344.70
550,000	\$1,083.33

Percent Impervious Area

Impervious Area Sq Ft	Monthly Fee		
	Impervious Percent		
	0 to 30%	31 to 60%	61 to 100%
2,500	\$2.95	\$4.92	\$5.91
3,300	\$3.90	\$6.50	\$7.80
4,900	\$5.79	\$9.65	\$11.58
5,900	\$6.97	\$11.62	\$13.95
11,500	\$13.59	\$22.65	\$27.18
25,000	\$29.55	\$49.24	\$59.09
65,000	\$76.82	\$128.03	\$153.64
175,000	\$206.82	\$344.70	\$413.64
550,000	\$650.00	\$1,083.33	\$1,300.00

Comparison of Impervious Area and Impervious Percent Rate Structures

Example A - Single Family Residential (detached)



EXAMPLE A

Parcel Area: 28,800 sq ft
 Impervious Area: 3,300 sq ft
 Percent Impervious: 11%

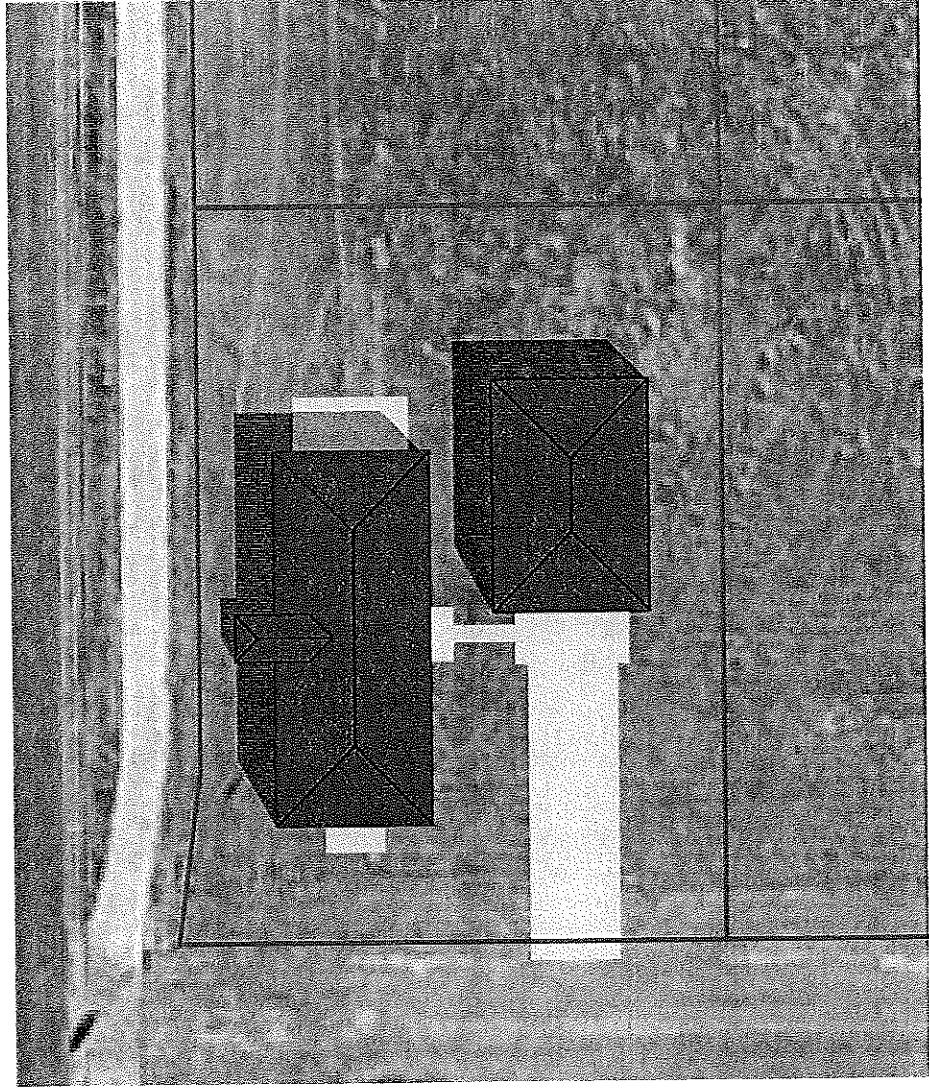
Monthly Fees

Impervious Area: \$6.50

Impervious Percent: \$3.90

Comparison of Impervious Area and Impervious Percent Rate Structures

Example B - Single Family Residential (detached)



EXAMPLE B

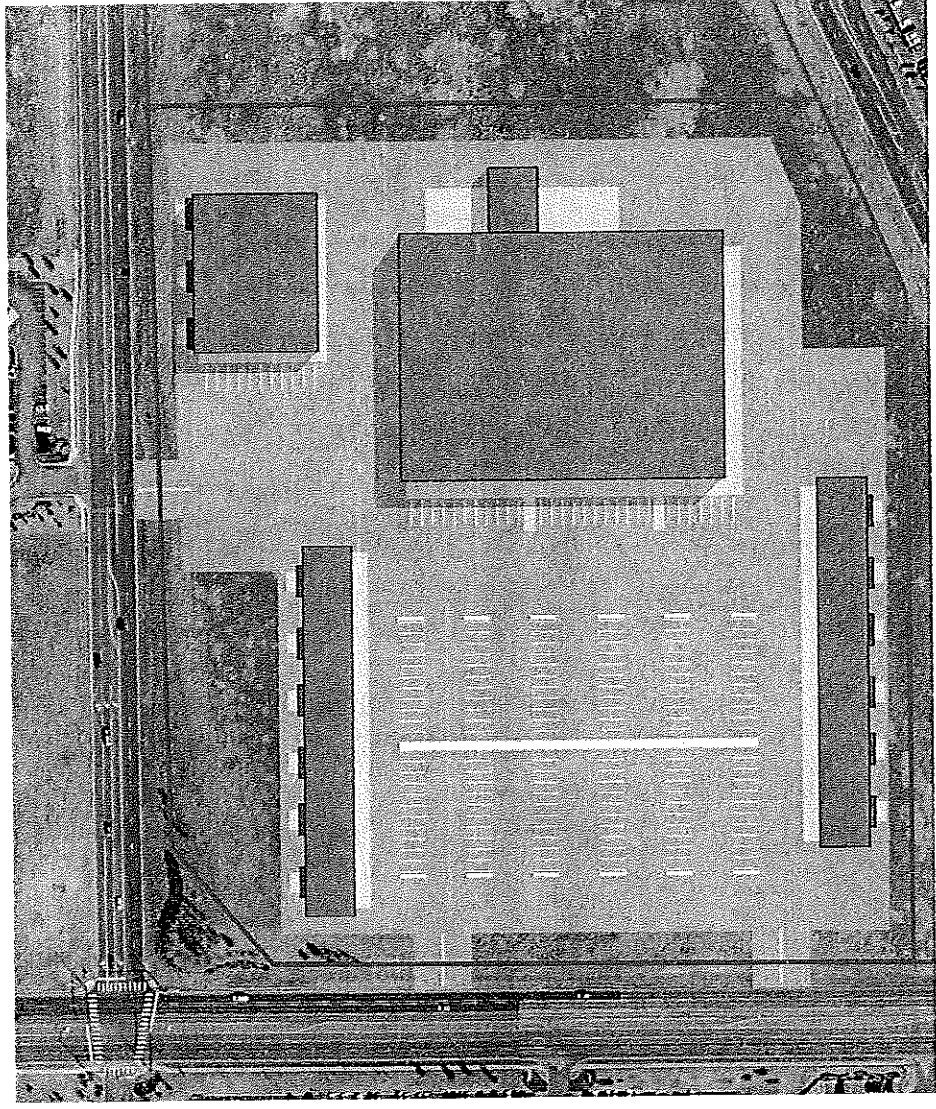
Parcel Area: 4,500 sq/ft
 Impervious Area: 3,300 sq/ft
 Percent Impervious: 73%

Monthly Fees

Impervious Area: \$6.50

Impervious Percent: \$7.80

Comparison of Impervious Area and Impervious Percent Rate Structures **Example G – Commercial Property**



EXAMPLE G

Parcel Area: 687,500 sq ft
 Impervious Area: 550,000 sq ft
 Percent Impervious: 80%

Monthly Fees

Impervious Area: \$1,083
 Impervious Percent: \$1,300

Comparison of Impervious Area and Impervious Percent Rate Structures

Example H – School Property



EXAMPLE H

Parcel Area: 2,000,000 sq ft
 Impervious Area: 550,000 sq ft
 Percent Impervious: 28%

Monthly Fees

Impervious Area: \$1,083

Impervious Percent: \$650

Summary

Example Comparisons of Rate Structure Options

Impervious Area and percent Impervious Area

	Example A Avg House, Large Lot	Example B Avg House Small Lot	Example G Commercial Small Lot	Example H School Large Lot
	Monthly Rate			
Impervious Area	\$6.50	\$6.50	\$1,083	\$1,083
Impervious Percent	\$3.90	\$7.80	\$1,300	\$650
Impervious Area (sq ft)	3,300		550,000	
Total Area (sq/ ft)	28,800	4,500	687,500	2,000,000
Impervious %	11%	73%	80%	28%