

2011-2030 Water Cost Impact Assumptions

- 1 **This is a COST model - not a pricing model**
- 2 **Future Water Purchase basis equal to 2009 totals**

This amount was 390,000 MCF; we sold 340,000 MCF
- 3 **Cost increases from DWSD will be an annual occurrence**
- 4 **DWSD will have little opportunity to increase water deliveries due to the weakened Michigan economy**

SEMCOG Studies showing population and employment trends were used for background
- 5 **DWSD will face increasing cost pressures due to soft demand and increasing maintenance expense**

Per DWSD, *"infrastructure is more than 50 years old on average"*

The general condition of the City of Detroit balance sheet and budget deficits will trigger higher cost burdens on suburban customers
- 6 **City of Rochester Hills has no special negotiating position vis-à-vis DWSD standard water rates**

Rochester Hills has limited bargaining power due to adoption of Technical Advisory Committee (TAC) contract template

Rochester Hills represents a very small percentage of DWSD water sales
- 7 **The model assumes water cost increases of 7% projected (2011 to 2030)**

I regard this as a "Best Case" number

2010 DWSD rate increase for Rochester Hills equal to 12.8%

"Fixed" component of DWSD water rate is adjusted by 2% annually
- 8 **Construction and Debt Service Figures were provided by the City of Rochester Hills**
- 9 **Initial Reservoir Operating Expense estimates were provided by City of Rochester Hills**

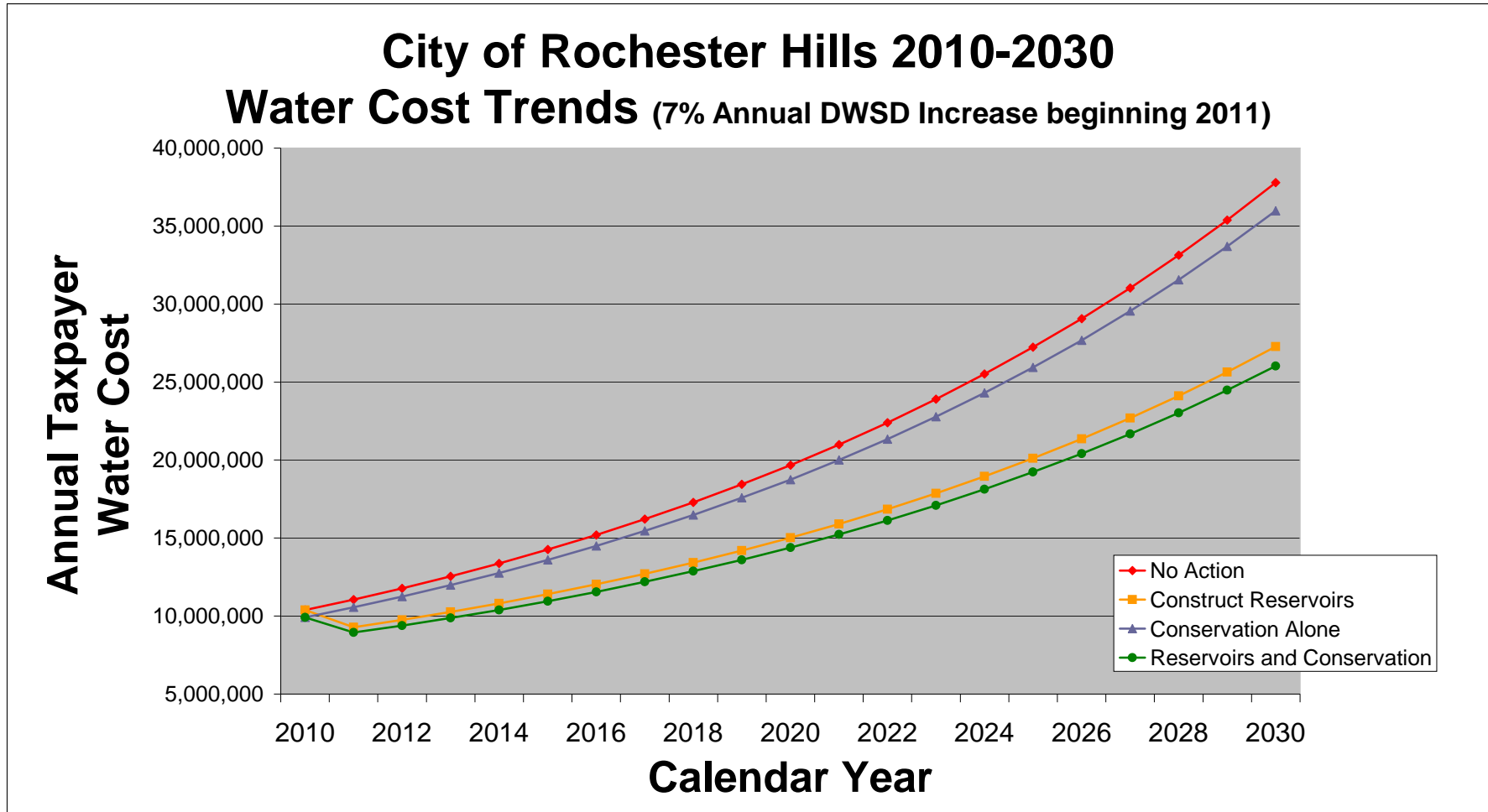
Operating Expenses were adjusted by 3% annually in the model
- 10 **Conservation efforts were initially calculated at 5% effectiveness**

Action Step: Survey other communities for effective target ranges
- 11 **No provision for implementation or enforcement costs associated with conservation initiatives was modeled**
- 12 **No provision for conservation enforcement revenue is included in the model. De-Minimis benefit**

Assumptions

Water Purchase Assumption (MCF)	390,000
Annual Rate Increase Assumption	7.00%
Annual Fixed Cost Incr Assumption	2.00%
Annual Reservoir Operating Cost	3.00%

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
No Action	10,380,816	11,057,602	11,780,766	12,553,534	13,379,358	14,261,932	15,205,206	16,213,407	17,291,060	18,443,003	19,674,413	20,990,829	22,398,179	23,902,804	25,511,487	27,231,487	29,070,572	31,037,050	33,139,812	35,388,371	37,792,905
Conservation Alone	9,911,646	10,555,590	11,243,614	11,978,781	12,764,372	13,603,897	14,501,108	15,460,023	16,484,939	17,580,453	18,751,484	20,003,296	21,341,518	22,772,177	24,301,716	25,937,032	27,685,505	29,555,029	31,554,049	33,691,605	35,977,365
Construct Reservoirs	10,380,816	9,284,502	9,760,849	10,271,363	10,818,415	11,404,538	12,032,443	12,705,030	13,425,403	14,196,881	15,023,015	15,907,606	16,854,717	17,868,698	18,954,202	20,116,205	21,360,035	22,691,388	24,116,361	25,641,476	27,273,710
Reservoirs and Conservation	9,911,646	8,940,645	9,392,922	9,877,682	10,397,176	10,953,812	11,550,165	12,188,993	12,873,244	13,606,071	14,390,848	15,231,187	16,130,949	17,094,267	18,125,560	19,229,559	20,411,323	21,676,267	23,030,181	24,479,263	26,030,142



<u>2011 - 2030 Total</u>	
No Action	436,323,777
Conservation Alone	415,743,552
Construct Reservoirs	329,706,836
Reservoirs and Conservation	315,610,254

<u>Assumptions</u>	
Water Purchase Assumption (MCF)	390,000
Annual Fixed Cost Incr Assumption	2.00%
Annual Rate Increase Assumption	7.00%
Annual Reservoir Operating Cost	3.00%

2011 - 2030 City of Rochester Hills Estimated Total Water Costs (7% Annual DWSD Increase beg. 2011)

