Total SAW Grant - City of Rochester Hills
SAW Grant Cost Summary

Wastewater AMP	$	1,124,444
Stormwater AMP	$	1,150,000
Stormwater Mgt. Plan	$	170,000
TOTAL	**$**	**2,444,444**
MDEQ Funding	$	2,000,000
Local Match	$	444,444

(max = $2 million, 90% on first million, 75% on second million)

MDEQ formula for first $1 million grant: STATE MATCH / 0.9 = TOTAL PROJECT
$ 1 million / 0.9 = $1,111,111
Local Match = $111,111 on first $1 million of grant

MDEQ formula for second $1 million grant: STATE MATCH / 0.75 = TOTAL PROJECT
$ 1 million / 0.75 = $1,333,333
Local Match = $333,333 on second $1 million of grant

Rochester Hills Match:	$	111,111	(from first million of state match)
	$	333,333	(from second million of state match)
	$	444,444	TOTAL

Rochester Hills

SAW Grant: Wastewater Asset Management Plan (AMP)

Scope Item	Description	Approximate Cost		Notes/Assumptions
1a-b	Collect/review data	$	20,444	Includes OHM reimbursement for SAW Grant scoping and application
1c	Software/Hardware/Training	$	65,000	Assume field equipment purchase (Trimble units + Tablets + Training)
1d-g	Data Management, needs identification	$	20,000	
1	**TOTAL - Data Management**	**$**	**105,444**	
2a	Evaluate existing data, ID meter locations	$	10,000	
2b	Flow metering	$	160,000	Assume $120K in metering hardware rental and installation costs, $40K in data download and analysis
2c-d	Hydrologic/Hydraulic modeling	$	75,000	Assume $25K in additional field survey (rim/invert verification)
2e	SSES - Smoke Testing	$	80,000	Targeted areas after flow metering effort
2	**TOTAL - Flow Metering/Modeling/SSES**	**$**	**325,000**	
3a	Cleaning and CCTV - collection system	$	435,000	Assume approximately 200,000 LF ($2.05/LF + $25,000 for contingency and contract admin)
3c	Manhole Inspections	$	75,000	MACP inspection of manholes in CCTV area, about 790 manholes (10% of system)
3d	As-Built Drawings - GIS Database	$	9,000	Assume as-built research at City Hall, 2 weeks full time
3	**TOTAL - Asset Evaluation**	**$**	**519,000**	
4a-f	**TOTAL - Asset Mgt Plan**	**$**	**90,000**	
5	**TOTAL - CIP**	**$**	**35,000**	
6	**TOTAL - Rate Study/Revenues**	**$**	**50,000**	Estimate from Tom Traciak
	TOTAL: WASTEWATER AMP	**$**	**1,124,444**	

Rochester Hills

SAW Grant: Stormwater Asset Management Plan (AMP)

Scope Item	Description	Approximate Cost	Notes/Assumptions
1a-b	Collect/review data	$ 15,000	Includes OHM reimbursement for SAW Grant scoping and application
1c	ID additional mapping needs	$ 6,000	(e.g. detention ponds, bridges, culverts, open channels)
1d	Compile SWMP findings	$ 7,500	
1	**TOTAL - Data Management**	**$ 28,500**	
2a	Public Meetings	$ 8,000	
2b	Online Survey + Data Analysis	$ 10,000	
2c	Select drain districts for analysis	$ 5,000	
2d	H/H Models	$ 90,000	20 districts (16 hours hydrology, 32 hours hydraulics for each district)
2e	Sewer level monitors (4)	$ 24,000	($5,000 per meter + $4,000 data analysis)
2f	Sewer system survey	$ 17,000	Assume 2 weeks of supplemental survey for key invert elevations
2g	Regional Stormwater Detention	$ 15,000	Review options for flood storage to reduce peak flows and prevent flooding
2	**TOTAL - System Modeling**	**$ 169,000**	
3a	Sewer cleaning / CCTV	$ 587,000	Assume approximately 180,000 LF @ $3.10/LF + $29K for contract admin
3b	Manhole Inspections	$ 50,000	Assume 10% of storm manholes (~500 manholes) at $100/MH for MACP inspection
3c	Catch basin/inlet evaluation	$ 20,000	Assume 750 structures at 10 minutes per structure
3d	As-Built Drawings - GIS Database	$ 10,000	Assume as-built research at City Hall, 3 weeks full time
3e-h	Detention pond inventory	$ 55,000	70 detention basins, 8 hours per basin
3	**Asset Evaluation**	**$ 722,000**	
4	**Asset Management Plan**	**$ 90,000**	
5	**Capital Improvement Plan (CIP)**	**$ 40,000**	
6	**Rate Study / Revenues**	**$ 100,000**	Funding Feasibility Study, SWAC Meetings, Rate Model, Pre-Referendum Coordination
	TOTAL: STORMWATER AMP	**$ 1,150,000**	

Rochester Hills

Stormwater Management Plan (SMP)

Scope Item	Description	Approximate C		Notes/Assumptions
1a-b	Identify Baseline Conditions	$	5,000	
1	**TOTAL - Baseline Conditions**	**$**	**5,000**	
2a	ID key drainage courses	$	2,500	
2b	Streambank Inventories	$	60,000	10 miles streambank assessment at 20 labor hours per mile = $20,000 + $15,000 for rating system, $10,000 GIS integration, $15,000 report
2c	Channel cross section survey	$	35,000	Cross section suvey of studied reach of open channels (about 240 cross sections total)
2d-g	Compile stream/culvert data - import to GIS	$	7,500	
2	**TOTAL - Asset Evaluation**	**$**	**105,000**	
3a	H/H Modeling / Floodplain Review	$	20,000	Combined with AMP modeling effort (represents only marginal additional effort)
3	**Capacity Analysis**	**$**	**20,000**	
4a-b	Water Quality Considerations	$	10,000	Documentation of known problems, identification of BMPs to address stormwater quality
4	**Water Quality Considerations**	**$**	**10,000**	
5	**CIP**	**$**	**10,000**	Project evaluation, export information to Asset Management Plan
6	**MS4 Program Updates**	**$**	**20,000**	Ordinance updates, develop BMP inspection/enforcement program)

TOTAL: STORMWATER SMP $ 170,000