

WET WEATHER INFLOW AND INFILTRATIONS \$\$LOSS

You are losing money to wet weather inflow and infiltration. But, just how much? Generally, the cost to transport and treat rain water entering the sanitary sewer is at least \$.01 per gallon. For example, the average annual loss for a service area with 4,000 sanitary manholes, 200 miles of pipe is over a \$1/2 million. Install SEWERLOCK to reduce inflow 80-90%.

Flow meters and dip measurements can be easily utilized to estimate how much money is lost each year to treating rain water.

- Measure now when it's dry,
- Measure during the rainstorm (inflow), and
- Measure 2-4 hours after rain ceases (infiltration).

Choose your worst areas first as a study area and record all the measurements in a log such as:

ID	NEAREST INTERSECTION	MANHOLE NAME	DIP DATE	METER DATE	TIME	FLOW DEPTH	PIPE SIZE	PIPE SLOPE	DEPTH/ PIPE DIA	COMMENT	GALLONS OF FLOW (gpm)
1	Street A – Street B	MH2001	3/10/10		1300	10	10	2%	100%	MH Surcharge d, raining	1390
2	Street C – Street D	MH1005		7/28/10	1100	7	8	2%	88%	Clear, sun	806
3	Street G – Street H	MH 3035	8/2/10		1500	10	12	2%	83%	Sunny, Dry	2294
4	Street A – Street B	MH 2001	8/9/10		1000	5.5	10	2%	55%	Clear Day	815

Use the Manning's Equation to determine the dry and wet weather flow in gallons. Multiply the difference by 1 cent to determine the extra cost.

For example, 1 and 4 above show that wet weather inflow is 1390-815=575 gpm. The additional gallons for a 1 hour rain storm duration, costs 575 X 60 min. X \$.01 = \$345 for that event at that location. For 100 locations throughout the service area, 15 rainstorms similar to the example above have an additional cost of \$517,500. Similar calculations can be used to determine the infiltration by multiplying the difference between the dry weather base measurement and the reading 2-4 hours after the rain stops.

Don't hesitate to send someone out with a stick to measure the flows. You don't need to use meters at every location. Save the amount of your calculated loss now and each year by installing SEWERLOCK before the next rain. Call us and we will send our staff out to help you get started.