

Type of Approach to Sewer Backup (not flooding)	Advantages	Disadvantages	Approximate Cost
1. Floor drain backup "flood guard" float model	Cheap, owner installed, easily monitored, no electricity, no manual operation, easily maintained	The flow guard will only protect sewer backup to about 29-inches - the height of a laundry tub. If a toilet is installed in the basement the protection of the sewer backup would be about 14-inches. Minor maintenance is required. Sewer water may leak from the building drain below the basement floor from defective pipe joints	\$25-\$40
2. Floor drain stand pipe "flood guard" standpipe model	Cheap, owner installed, easily monitored, no electricity, easily maintained	The flow guard will only protect sewer backup to about 29-inches - the height of a laundry tub. If a toilet is installed in the basement, the protection of the sewer backup would be about 14-inches. Minor maintenance is required. Sewer water may leak from the building drain below the basement floor from defective pipe joints. Must be installed before sewer backups occur. Prevents drainage of water sources. Must be manually removed after flooding ends.	\$30-\$50
3. Basement fixtures plumbed to a sanitary crock to a waste stack	Most effective known system to combat backflow from city sewer systems. Protects up to 1st floor plumbing fixture level.	Expensive relative to the limited protection of a floor drain backup valve. Installation by a licensed plumbing contractor is required. Basement plumbing fixtures are not useable during a backup event if there is also a power failure at the same time.	Approximately \$2,000, including installation
4. Backwater valve installed in the drain/sewer line. (flapper type)	If properly maintained will stop sewer backflow from the city main to the building.	Expensive relative to the limited protection of a floor drain backup valve. Not usable on a combined sewer/downspout and drain tile system. Subject to failure due to clogging if not regularly maintained. Requires an access pit from 3.5 to 9.5 feet deep which are subject to flooding. No other plumbing fixtures can be used in the house when the valve is in the closed position. Installation by licensed plumbing contractor is required	Approximately \$2,000, including installation
5. Shut off valve installed in the drain/sewer line (gate type)	If properly maintained will stop sewer backflow from the city main to the building.	Expensive relative to the limited protection of a floor drain backup valve. Not usable on a combined sewer/downspout and drain tile system. Subject to failure due to clogging if not regularly maintained. Requires an access pit from 3.5 to 9.5 feet deep which are subject to flooding. No other plumbing fixtures can be used in the house when the valve is in a closed position. No valves are currently approved for this use in Wisconsin. Must be manually operated in a timely manner during a backflow event.	Cost Unknown