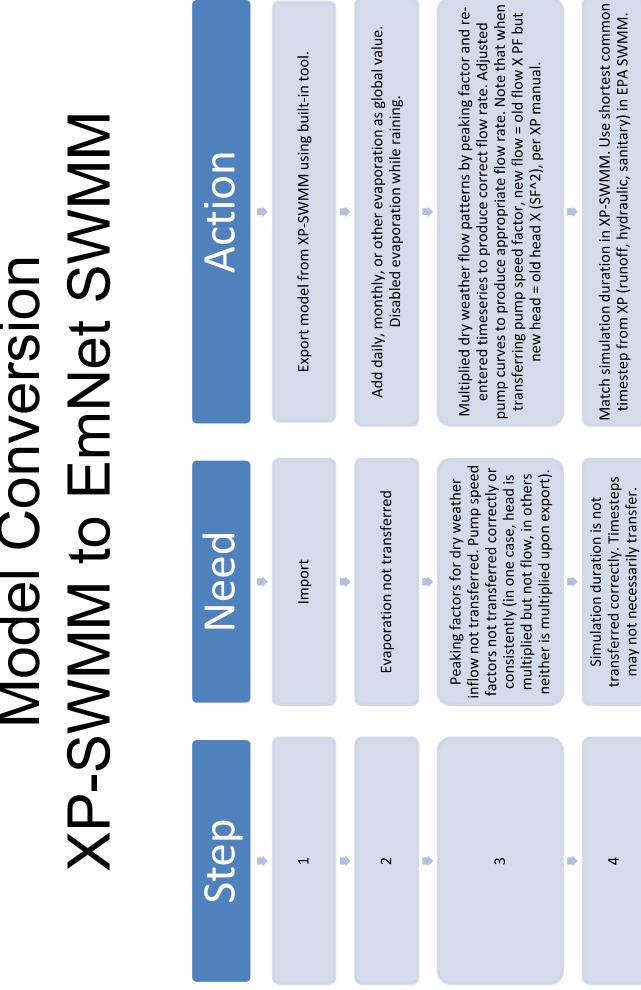
Model Conversion





XP-SWMM to EmNet SWMM Model Conversion

Step

Need

Action

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Ponding not transferred

After transfer, some nodes show flow that is not as smooth as XP.

elevations not transferred correctly. Pump curves did not transfer correctly. Pump start/stop

while, most often, hourly flow time Dry weather flow patterns for daily units, then values were incorrectly patterns were. If dry weather flow units were different from model timestep were not transferred transferred.

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enabled in XP. Surcharge D = 1000 ft where manhole was sealed in XP. increasing maximum depth of storage unit and adjusting curve such that very small area is used above the maximum storage depth that ponding occurs. Surcharge D = ponding depth where ponding was Allow global ponding. For juncions: Surcharge depth = 0 where no For storage units: surfcharge above storage depth is modeled by

smoothed. Dynamic wave tolerance lowered and maximum Routing timestep shortened in EPA SWMM until flow is terations increased, if necessary. Pump curves were checked and corrected as necessary in EPA SWMM. Care was taken to use same pump classification (i.e. nead differential). Start and stop elevations corrected

match those in XP. Nodes where dry weather flow rates were Time patterns were checked and corrected in EPA SWMM to not in model units were corrected to model units and reentered in EPA SWMM model



XP-SWMM to EmNet SWMM Model Conversion

Step

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Need

Time series are not correctly referenced in EPA SWMM

There are no special links in EPA SWMM

Special shape curves for conduits are not transferred correctly (imported as depth vs width).

Arches not correctly transferred to EPA SWMM. – No width specification, therefore width is transferred as 0.

Action

Time series file location specified. Dates added to time series because XP rolls over time without indicating that a day has lapsed. Some time series were directly entered in SWMM input file (tidal TS).

Special links converted to pump, orifice, or weir, depending on the function of the special link. Control rules generated for the controls to match the function of the special link.

Values were converted into fraction of full depth and width/full depth then re-entered using the SWMM GUI.

Entered maximum width = 2x height.



Model Conversion

