

TENTATIVELY FINALIZED 5-15-15

Guiding Principles for Inflow/Infiltration

v.5/11/2015

The following principles are intended to assist in the development of contract language regarding Inflow and Infiltration (I/I) between WTD and the local agencies and the role that a Board would have as part of implementation of the contract language.

1. A typical attribute of underground wastewater pipes is the existence of I/I in all portions of the sanitary sewer system, including adjoining connections within the private side sewer portion of businesses and residences, WTD's regional system, and the local agency's collection system. It is also understood that I/I has impacts to both the local and regional systems.
2. Solutions for I/I should address all portions of the system and be evaluated as part of a "one system" perspective:
 - a. Because system studies have shown that the vast majority of I/I (up to 90%) resides within the private portion of the sewer system, WTD and local agencies commit to developing long-term solutions to reduce I/I from the private portion of the system, that may include:
 - i. Code changes
 - ii. Requirement to replace an existing side sewer as a condition of reconstruction/significant remodel of an existing residence or business.
 - iii. Requirement to provide inspection of private side sewers at point of sale of all residential and commercial facilities to ensure structural sufficiency and water tightness of the existing private sewer system associated with that residence or commercial facility. Develop inspection and construction practices and standards to be used by WTD and Contract Agencies for all new construction both of agency owned systems as well as private portions of the system.
 - b. Program/rate incentives/grant funding programs may include:
 - i. Developing a "Private Side Sewer Repair Program" outside of point of sale that includes incentives for property owners to repair/replace their aged side sewer.
 - ii. Leverage WTD/Contract Agency ability to partner to obtain grant funding for such programs.
 - c. I/I removal within the local and regional systems may include the following types of improvements:
 - i. Relining/rehabilitation/replacement of existing main lines.

- ii. Maintenance hole rehabilitation including improvements to prevent both infiltration from groundwater as well as inflow through the lid.
 - iii. Grouting of maintenance holes and main lines.
 - d. All WTD CSI projects should be evaluated to determine if I/I project work could result in a cost effective project., Once the appropriate analysis is completed and cost effectiveness is determined, the I/I project should proceed.
3. The solution for I/I must be cost effective to the region before using regional dollars. Cost effectiveness can be achieved when local agencies participate in a regional project that then provides for a cost effective project.
 4. When a local agency performs I/I work that benefits the regional system, participation by WTD up to the level of their benefit would be anticipated.
 5. The I/I program needs to be developed in a way that its implementation will not result in local agencies deciding not to invest in their local I/I programs, waiting for the regional program to solve their issues.
 6. Flow forecasting, especially the I/I element, needs to be reviewed periodically to ensure that there is a validation of forecast numbers through actual flow monitoring. Assumptions made shall be adjusted as we continue to add additional data to our forecasting.
 7. As part of development of I/I projects, adverse impacts that may result from the implementation of the I/I project, i.e., storm drainage, shall be addressed and mitigated as part of the project. Costs associated with this mitigation must be included in the determination of cost effectiveness.
 8. In order to assist the regional effort in determining cost effectiveness for I/I, WTD shall perform flow monitoring down to the mini basin level every other decade as part of their decennial flow monitoring to establish baseline I/I levels throughout the service area.
 9. An I/I Reduction Program will be developed with the intent to provide funding for long-term removal of I/I in the regional system. The Board will determine as part of capital improvement program which projects provide the best overall benefit to the region.

Role of the Board:

1. The Board shall review and make recommendations to the Executive on I/I regional programs that will benefit the regional system as a whole. The Board will review all

WTD Capital Projects proposed to resolve capacity issues through I/I reduction for both cost effectiveness and for validation of capacity reduction through I/I.

2. Board shall review and recommend requests by Local Agencies asking for WTD participation for regional benefits in their local I/I removal project to verify level of benefit to regional system.
3. Board shall participate in flow forecasting on a regular basis to update flow information as new data can be used to improve forecasting.
4. Board shall adopt best management practices for sewer construction to be used by WTD and Local Agencies.

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Guiding Principles for Local vs. Regional Wastewater Facility Ownership

v.Revised 5/13/15

The following principles are intended to govern the transfer of facilities between WTD and local agencies, and to establish the role of the Board in such transfers.

1. A facility is defined as a regional facility if it meets the following criteria:
 - a. At the point of connection to the local system, the facility serves a basin of 1000 acres or more, or
 - b. At the point of connection to the local system the facility serves a basin of less than 1000 acres, AND the Board decides the facility is regional by other criteria (such as flow/volume, size of pipe, # connections, geographic features, # agencies served).
2. Transfers from local agencies to the regional system are voluntary, meaning a local agency may opt to retain ownership of facilities that meet the regional definition. Likewise, transfers from WTD to a local agency for facilities that no longer meet the regional definition are voluntary, meaning WTD may opt to retain ownership of these facilities.
3. Approval by the Board shall be required on financial agreements between a local agency and WTD, when a local agency desires financial contribution by the County for design, construction or operation of a facility that is built and owned by the local agency and that meets the definition of a regional facility.
4. Approval of the Board shall be required for the transfer of facilities between WTD and local agencies. Such transfers can be either when a Local Agency desires WTD acquire ownership of a facility that meets the regional definition OR when WTD desire that a Local Agency acquire ownership of a facility that no longer meets a regional definition. In the case of a facility transfer from WTD to a local agency, mutual agreement of this transfer is required.
 - a. Facility Transfer Assessment: The Board shall assess the conditions of the proposed facility transfer, using the guidelines for evaluation of capital projects contained in the "Capital Projects Guiding Principles". This assessment shall be used by the Board to determine whether the facility transfer is acceptable from a regional perspective and therefore whether the receiving agency shall accept the

facility and if so under what conditions. These conditions shall include an appropriate reimbursement amount, if applicable, and this amount shall be based on the value and cost to the receiving agency. The Board will consider upgrade costs to the receiving agency's standards and/or the cost of operating the facility to meet the receiving agency's needs. The following factors shall be used in this evaluation:

- Facility age (remaining useful life);
 - Level of past asset management (O&M) over the life of asset to date;
 - Capacity to serve, including future growth,
 - Design issues
 - Operational impacts
 - Financial impacts
 - Any previous payment for the facility by the region if being transferred from local facility to regional facility, and
 - Other elements deemed appropriate for consideration by the Board.
- b. Requirement for an agreement: The terms of a facility transfer shall be formalized in an agreement, developed by WTD and the local agency. This agreement shall be reviewed and approved by the Board prior to Board approval of the transfer.
- c. Option for facility decommissioning by WTD: If a regional facility is proposed by WTD for transfer to a local agency and there is not mutual agreement to this transfer, then the Board will evaluate whether the proposed terms of the transfer are reasonable, using the guidelines for evaluating capital projects contained in the "Capital Projects Guiding Principles". If the Board decides that the proposed terms for transfer of the facility are reasonable and the local agency disagrees with the transfer, WTD may exercise the option of decommissioning the facility no longer needed for the regional system with two years notice to the local agency.

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Guiding Principles for Board Role on Regulatory Requirements and /Legislation

Future obligations placed on WTD by regulatory agencies have the potential of having major impacts on how the facilities operate, the type of facilities, and the cost of the facilities. As a result of these concerns, the Board will take an advisory role in the following:

- A. Proposed, new or enhanced regulatory or legislative actions that impact our local or regional systems
- B. The acquisition or renewing of permits and their requirements

The Board shall take a proactive, advisory role when the new requirements are being drafted and take every opportunity to provide their input as to how the new requirements are drafted as well as implemented.

This could be implemented by involving a sub-committee of the Board.