WE 2: UPGRADE INEFFICIENT TOILETS, SHOWERHEADS & FAUCETS DURING RENOVATIONS

New York City Building Code
Proposal developed by the Water Efficiency & Building Stormwater Committee

Summary

Issue:
Older toilets and fixtures use three to five times as much water as today’s standard fixtures.

Recommendation:
Require the replacement of any outdated plumbing fixtures when bathrooms are renovated.

Proposed Legislation, Rule or Study

Amendments to the New York City Building Code:

1. Add a new Section 2903 as follows:

   SECTION BC 2903
   UPGRADE UPON MAJOR RENOVATION

   2903.1 Definitions. Definitions used in the New York City Plumbing Code shall apply in this section.

   2903.2 Bathroom fixture replacement upon major renovation requiring a permit. Upon any alteration to any bathroom or restroom requiring a permit, any toilet, or showerhead that does not comply with the water consumption requirements of section 604.4 of the New York City Plumbing Code shall be replaced with a compliant model. Any sink or lavatory faucet that does not comply with the water consumption requirements of section 604.4 of the New York City Plumbing Code shall either be fitted with an aerator to bring such faucet into compliance or be replaced with a compliant faucet.

   Exception: Any toilet that does not consume more than 1.6 gallons of water per flush.

Supporting Information

Issue – Expanded
Pre-1980 toilets can use as much as 7 gallons per flush (the equivalent of nearly 1½ water-cooler bottles), and other old plumbing fixtures use correspondingly large amounts of water. Although New York City has instituted incentive-based toilet replacement programs in the past and new toilets must comply with federal water efficiency requirements, there are still many wasteful plumbing fixtures in the city.

This proposal will only be triggered when plumbing fixtures are moved or added, not during simple replacements of fixtures or other standard bathroom renovation work.

Environmental & Health Benefits
Requiring more efficient fixtures will reduce water consumption, resulting in less wastewater treatment and reduced frequency of combined sewer overflows. This proposal will also generate business for plumbers and plumbing supply companies.

This proposal was found to have a low, positive environmental impact per building and to impact a small number of buildings. It was thus given an environmental score of 1.

This proposal was found to have no significant health impact.
**Cost & Savings**
As described in the Executive Summary, Bovis Lend Lease prepared cost estimates for each Task Force proposal in the context of well-defined construction projects in specific buildings. Where possible, members of the Technical Committees prepared savings estimates for some of these projects and buildings. These cost and savings estimates are presented in the February 1st draft version of Appendix A. The innate uncertainty in how construction and operation will vary from one building to another, the complexity of the Task Force proposals, and the wide range of applications in which the proposals may be realized mean these figures are truly estimates.

This proposal is not expected to have any significant impact on capital costs. This proposal was also estimated to generate financial savings that will pay for any capital costs in less than three years.

**Precedents**
New York City would not be the first major city to pass a law requiring the replacement of water-wasting fixtures during renovations. A similar ordinance, for example, was proposed in San Francisco in February by Mayor Gavin Newsom and Supervisor Sophie Maxwell. Furthermore, a parallel San Francisco ordinance would require the replacement of outdated fixtures in all commercial buildings. Both ordinances have the support of the Building Owners and Managers Association and San Francisco Apartments Association.

Additionally, smaller municipalities have passed more extensive ordinances for outdated fixture replacement. The Marina Coast Water District (encompassing the City of Marina and Fort Ord in California), for example, requires upgrading to low-flow fixtures during new construction, any renovation that involves district review, any renovation that involves replacement of fixtures, and changes of ownership. Also, all hotels and apartment buildings were required to install at least low-flow showerheads within a specified period of time following the enactment of the ordinance.

**LEED**
This proposal would help buildings to meet the LEED-EB 2009 Water Efficiency prerequisite WE1, Minimum Indoor Plumbing Fixture and Fitting Efficiency and WE Credit 2, Additional Indoor Plumbing Fixture and Fitting Efficiency.

**Implementation & Market Availability**
All plumbing fixtures required under this proposal are off-the-shelf products that are produced by all major manufacturers.

**Notes**
1. The proposal will only apply to a gut renovation of a bathroom in which fixtures are moved or added, since the requirement is tied to the issuance of a plumbing permit. A permit is not required for the vast majority of renovation work to bathroom, including the replacement of fixtures and retiling. A building permit is only required for work in a bathroom involving changes to the roughing (pipes leading to or from the drainage or supply plumbing).
2. Toilets that do not consume more than 1.6 gpf are exempted from the replacement requirement in this proposal because the committee’s primary intent was to replace the truly water-guzzling toilets permitted prior to 1994. The committee felt that the water savings from replacing a 1.6 gpf toilet with a 1.28 gpf toilet would not justify the financial cost of doing so. Future studies of savings from dual-flush toilets may justify the repeal of this exception beginning 2013 when dual flush would be required in New York City under the Enhance Water Efficiency Standards proposal.

**ENDNOTES:**

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2. Ibid.

3. Ibid.


5. Ibid.