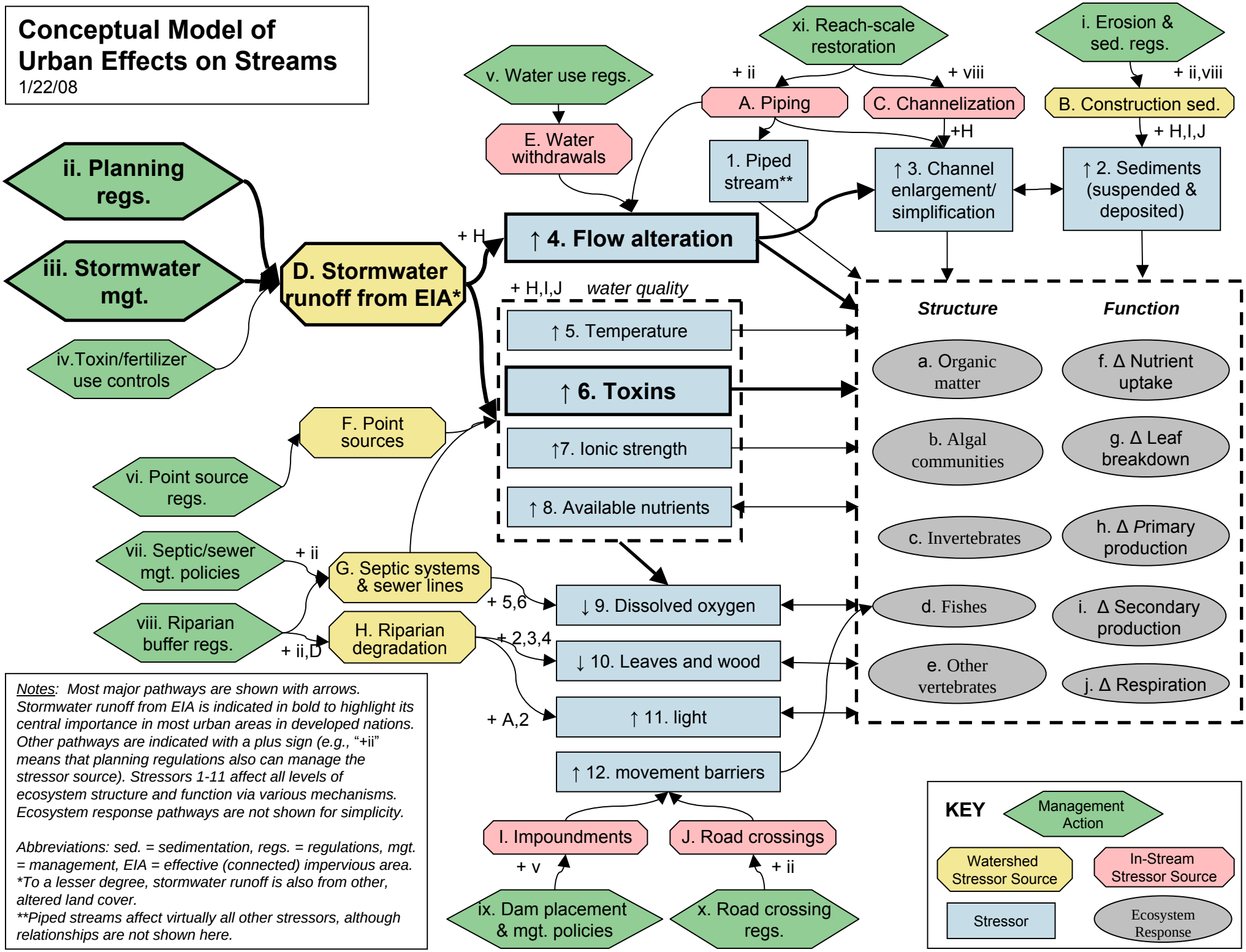
Conceptual Model of Urban Effects on Streams

1/22/08



Notes: Most major pathways are shown with arrows. Stormwater runoff from EIA is indicated in bold to highlight its central importance in most urban areas in developed nations. Other pathways are indicated with a plus sign (e.g., "+ii" means that planning regulations also can manage the stressor source). Stressors 1-11 affect all levels of ecosystem structure and function via various mechanisms. Ecosystem response pathways are not shown for simplicity.

Abbreviations: sed. = sedimentation, regs. = regulations, mgt. = management, EIA = effective (connected) impervious area.
**To a lesser degree, stormwater runoff is also from other, altered land cover.*
***Piped streams affect virtually all other stressors, although relationships are not shown here.*