Four papers in this BRIDGES cluster highlight factors that produce diverse biological and sociological conditions in urban watersheds. Key points include:

- Defining the urban stream syndrome has been useful for improving management of urban watersheds throughout the globe, but embracing the syndrome obscures site-specific factors influencing the physicochemical and biological responses of streams to urbanization (Booth et al. 2016).

- Climate is an important driver in determining the direction and magnitude of symptoms of the urban stream syndrome and produces heterogeneous changes in structure and function among watersheds (Hale et al. 2016).

- Economic development influences the type and quantity of waste entering waterways, the age and condition of water infrastructure in urban watersheds, and the ecosystem services provided by urban streams (Capps et al. 2016).

- The degree to which urban infrastructure degrades streams is modulated by its function (piping vs. infiltration), maintenance, age, and materials (plastic or concrete). These characteristics vary over space and time within and among cities based on the rate of economic development and urban expansion, available technologies, management goals, and regulations (Parr et al. 2016).

- Integrating global commonalities of urban streams with a more nuanced understanding of regional and local characteristics of a given watershed will promote the recovery of watersheds in urban areas (Booth et al. 2016).

**Paired views of undisturbed (A, C) and urbanized (B, D) streams.** A and B show upstream and downstream reaches of East Fork Issaquah Creek, a humid region with relatively uniform hydrographs, glacially derived sediment, and abundant channel–vegetation interactions. C and D show upstream and downstream reaches of Mission Creek, a semi-arid region with flashy hydrographs, active sediment delivery from the Transverse Ranges, and limited riparian vegetation (Fig. 1, Booth et al. 2016).

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