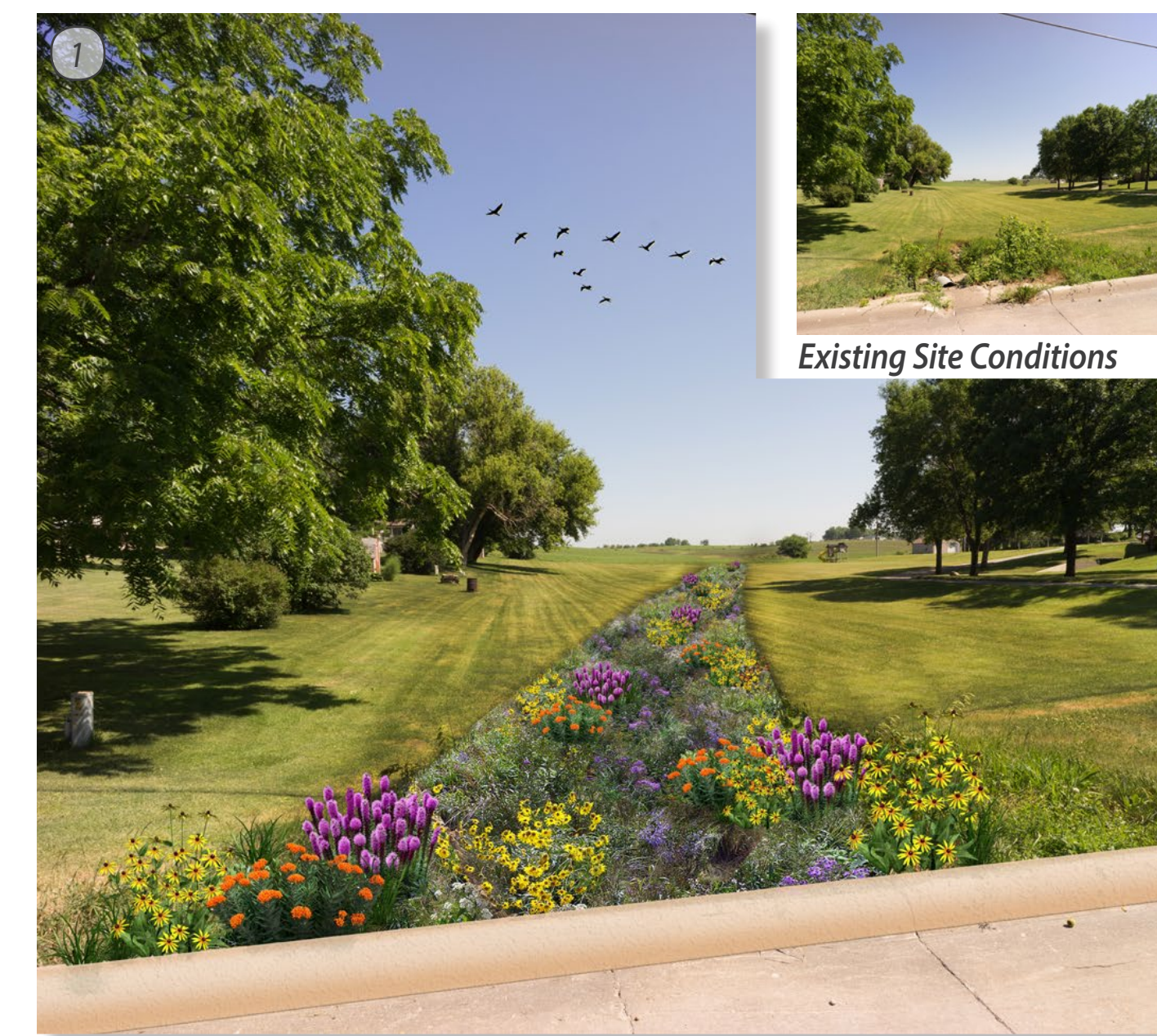




Stormwater Map - Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," accessed April 2016.



Bioswale North of J Avenue



Detention Basin Northeast of Middle School

Stormwater Management

Kalona's proximity to the English River and various waterways through town creates flooding issues throughout the community. The Iowa Stormwater Manual describes several ways to help mitigate flooding issues. These methods include: bioswales, rain gardens, and detention basins. Community members along with state and local transportation officials, identified areas around town where flooding issues were the most predominant during the assessment meetings. Those areas included: an open lot north of J Avenue, an existing detention basin northeast of the school, in front of the Elementary School near 6th Street, and near the intersection of Highways 1 and 22.

The addition of a bioswale near the northeastern side of Kalona would help slow down field runoff that currently flows south toward town. According to Iowa Stormwater's article Bioswales: For Better Stormwater Management, a bioswale is "a multi-purpose stormwater management practice that provides an environmentally friendly alternative to storm sewers. By using a permeable soil bed and perforated subdrain tile, bioswales infiltrate water from frequent, small rains (1.25 inches or less). During heavy rains, bioswales convey runoff in a non-erosive manner."

A vegetated detention basin is proposed northeast of the schools near the softball and baseball fields. Detention basins are used to temporarily detain water; most of the water will be infiltrated and some may be slowly released back into the watershed at a reduced velocity. A detention basin currently exists on this site, however, its performance is lacking. Adding engineered soils and planting the basin with native vegetation such as prairie grasses and wildflowers will help increase the rate of absorption.

Kalona

Stormwater Management

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