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STORMWATER

Stormwater

Discussions with officials at the St. Louis Metropolitan District (MSD) and with local civil engineers at the beginning of the project indicated that planning for stormwater related entitlements complicates efforts to develop property along the corridor, and throughout the metropolitan area, at the current time. A few years ago MSD instituted model stormwater planning regulations. However, local property owners and engineers indicate that the process of administering and complying with the new regulations remains unclear and highly cumbersome. Gaining approval for stormwater plans for a given parcel may involve over six months of negotiation and paperwork with MSD and associated entities. Importantly, the current regulations require every property owner to analyze and provide for stormwater solutions on a parcel by parcel basis. This requires a significant expenditure of effort and cost for analysis studies and compliance for every individual parcel. Parcel by parcel systems are inefficient and cumbersome for all parties involved, and do not appear to solve the overarching stormwater issues facing the St. Louis area.

Key Recommendations for Stormwater

- The five cities along the corridor should collectively present an alternative strategy to MSD to solve for stormwater in the area. Under this potential arrangement, property owners located within a given sub-regional drainage basin, such as the Grand Glaize basin, would contribute funding to a collective pool to provide for regional drainage facilities. These larger drainage facilities, located along or near the creek, would provide additional open space amenities to the community and relieve the burden on individual property owners to solve for stormwater runoff on their own parcels through smaller and more inefficient detention or retention facilities. By simply contributing funding to a regionally administered stormwater system, the administrative and bureaucratic burden currently impeding development would decrease as well. The figure on the following page depicts the boundaries of the primary drainage basins within the study area and denotes potential locations for sub-regional detention facilities along and near Manchester Road to serve these sub-basins.
- The communities should explore installing a series of vegetated swales within undeveloped portions of right of way areas along Manchester Road, and along side streets and intersecting north-south roadways, to increase the percentage of runoff that disperses into the ground rather than enter local creeks. In particular, the western portion of the study area includes significant open space within the right of way suitable for the installation of vegetated swale systems.
- The communities should look for opportunities to install rain gardens at key locations along the corridor. A rain garden is defined as a planted depression that allows rainwater runoff from impervious urban areas to be absorbed into the ground. Studies have shown that effective rain gardens can reduce the amount of stormwater and pollution reaching creeks by as much as 30 percent. Rain gardens should incorporate native plantings because these varieties typically do not require fertilizer and are more hardy and adaptable to the local conditions. Examples of plants to include in rain gardens to absorb the greatest amount of runoff include wildflowers, rushes, ferns, shrubs and small or miniature trees.
- The communities should reduce parking requirements and increase requirements for open and civic spaces in order to increase the overall coverage of pervious surfaces along the corridor.
- The communities should require at least a portion of the paved surfaces along the Manchester Road corridor to use porous pavement technologies to reduce runoff to adjacent streams.

Watershed Map