APPENDIX 8

POSSIBLE LOCATIONS FOR GREEN INFRASTRUCTURE IN THE PROJECT AREA

The following areas were identified in public workshops as experiencing problems from stormwater runoff:

Borough of East Stroudsburg Workshop:

> Drainage along Route 447, across from 84 Lumber

Borough of Stroudsburg Workshop:

Scott Street, drainage channel from Phillips Street

Stroud Township Workshop:

- ➤ 1725 Wallace Street 41-00-21.16; -75-12-14.59
- ➤ 120 Lockwood Circle 40-58-35.03; -75-12-59.57
- ➤ Corner of Queen Street and Avenue B 40-59-45.65; -75-11-52.10

The following areas were identified through conversations with municipal officials, residents and businesses, or visual observation(s):

Borough of East Stroudsburg

Two sites were investigated (and designs created), but owners declined to participate:

- ➤ CVS parking lot on So. Courtland Street. Parking lot floods after rain, overflow crosses a landscaped island and flows down an ADA ramp to street drains. A design was created for this site and discussions held with site owners/leases. CVS management declined to participate due to perpetual maintenance concerns.
- End of Lenox Avenue by municipal maintenance garage. Design was created for grassed area with ditch that funnels runoff from street and garage parking lot through levee to Brodhead Creek. The Borough declined to participate as they could not determine ownership of the area.

The following list represents possible locations for future green infrastructure:

- End of Warren Street, by J.M. Hill School receives runoff from school parking lot, Broad Street, and Warren Street.
- Municipal lot next to 47 South Courtland Street and drain to "Dansbury tributary." Receives drainage from South Courtland Street and parking lots.
- Avon Court drainage to "Dansbury trib."
- > SARP parking lot, off Day Street, drains to "Dansbury trib."
- ➤ Bank Alley Dansbury Terrace, Washington Street to North Courtland Street / "green alley" projects.
- Corner of Day Street and North Courtland Street former gas station parking lot retrofit.
- East Stroudsburg Presbyterian Church Smith Street opposite Highland Drive.

- Notre Dame Campus Highland Street and Spangenburg & Ellies Lane.
- ➤ ESU Mary Street, Smith Street and East Brown Street, Normal Street and Prospect Street, and Prospect Street opposite Elk Street.
- ➤ Between Greentree Drive and Interstate 80 on ramp.
- East Stroudsburg Twin Boroughs Recycling Forge Road.
- ➤ South Crystal Street existing basin retrofit.
- East Stroudsburg Borough Dansbury Park numerous locations.
- East Stroudsburg School District along North Courland Street.
- Cramer's property Williams Street.
- ➤ Buttonwood Court in field Buttonwood Court.
- Triangle at intersection of King Street and Willow Street.
- ➤ Eagle Valley strip mall swale retrofit Route 447.
- ➤ Head Start/Pocono Services off West Fourth Street.
- ➤ In field between West Fourth Street & Oak Street.
- Eagle's Glen Plaza numerous locations.
- ➤ Pocono Wellness along Sterling Drive.
- ➤ Harsco Burson Street numerous locations.

Several sites were suggested and scored as to value by municipal officials, including Zacharias Pond, East Stroudsburg Firehouse, and Dansbury Depot. Demonstration projects were built at Dansbury Depot and the Firehouse. See below for full details.

Possible Locations of Rain Gardens

				Poten	East Stroudsh itial Rain Gard ng LastUpda	den Locatio	ons and
Location	*Pollutant Removal Value	Apparent effort to create 1-5	Visibility	Relative Cost	Timeframe to design and construct	Total Points**	Comments
Dansbury Depot inlets	2	4	5	4	4	19	Inlets along back of building. Scope of work is to raise 2 inlets 6", till, add compost to soils, and add plantings. Visibility very high due to Depot activities and adjacent park and road network. Grass and sidewalk area generate low pollutant loads. Depot staff to perform maintenance. Potential planting assistance from Timberland Community Day.
Miller Park	4	3	4	3	2	16	Has potential to be a cornerstone feature of Miller Park. Scope includes grading swale and removing weeds, overgrown plantings, and invasives from garden club area. Create potential tiered rain garden adjacent to path from parking lot to park. High pollutant removal from parking lot runoff. Potential community support and assistance from garden club for plant selection and maintenance. Needs detailed design and commitment from all parties to implement. Potential Highest cost option.
Zacharias Park	4	3	3	2	3	15	Rain garden behind backstop of baseball field. Rain garden will treat pollutants from parking area before discharge to pond. Requires section of pipe removal. Swale grading to convey runoff, rain garden excavation, and plantings. Would remove ponding of water on parking lot and deterioration of pavement. High Pollution removal and extends pavement life. Visibility to park users only.
Flory's Pond						0	FUTURE EVALUATION-Huge area. Great for educational and training purposes; however, the incremental value is minimal because water runoff will already flow to pond and infiltrate.
Gregory Pond Park						0	FUTURE EVALUATION-No pictures. 3 areas physically possible but very little incremental value because all water eventually drains to wetlands and pond anyway.
Firehouse-landscape island	3	5	2	4	4	18	Landscape island to be retro-fitted with relative ease. Generally requires grading and addition of compos, and plantings. Lower visibility area. Blends in well with newer firehouse look. Treats parking lot runoff prior to entering infiltration system, which will aid in limiting maintenance to underground system

Location	*Pollutant Removal Value	Apparent effort to create 1-5	Visibility	Relative Cost	Timeframe to design and construct	Total Points**	Comments		
Firehouse-swale area	2	3	2	4	4	15	Swale along edge of parking lot discharging to creek flowing beneath building. Swale has little topsoil and bare spots. Would require regrading, compost mix, removal of existing erosion blankets, and plantings. Visibility low along street and size of garden to be minimal.		
Dansbury Park and roads leading to levee not included because of water supply wells and property ownership problems									

^{*} Rankings from 1 (low or negative aspect) to 5 (high or positive aspect)

Borough of Stroudsburg



Pocket Park in Stroudsburg

Stroudsburg Borough Officials would like to install a "Pocket Park" on this empty corner lot at Sixth Street and Quaker Alley. The lot is owned by the County however, and County officials say they may need the lot for staging construction at the Courthouse.

Agreement on improving a small corner of the property (1,000 square feet) with benches, toddlers play area, and/or a display about future plans is pending. BWA will provide pavers for part of the area as another green infrastructure demonstration site in Stroudsburg.

Greening Quaker Alley





Examples abound in cities and towns that have turned their alleys into green spaces, where rain can filter through gardens, pavers, or porous pavement to recharge ground water and create lively spaces that promote downtown economic development. Can this project work in Stroudsburg?

^{**} The higher the total points, the more favorable

Rain Gardens Everywhere

Rain gardens at Sarah Street Grill on Quaker Alley and at the Municipal Garage on Ann Street are shown installed below. If space can be found for about 50 small gardens like these, runoff pollutants could be reduced by 50%.



Two (2) municipal sites were suggested by Borough Manager Brian Bond:

- Municipal lot on Sarah Street extension, corner of Fifth Street.
- ➤ Municipal Lot #5 behind Marita's Cantina on Ann Street.

Additional sites were identified through conversations with residents or visual observation(s):

- Quaker Alley many opportunities exist along Quaker Alley to retrofit as a "green alley".
- Ramsey School parking lot, corner of Sixth and Scott Streets retrofit when property is redeveloped.
- > Stroudsburg High School, West Main Street Bus parking area drains to Little Pocono and/or Pocono creeks.
- Main Street many opportunities for "green street" projects along Main Street, including rain barrels, green curb bump-outs, and extending tree wells with pavers to allow greater infiltration.
- Ann Street Hampton Inn and Earthlight parking lots drain directly to McMichael Creek.
- First Street drain drains First Street area through levee. Property part of levee system.

Stroud Township

- ➤ Raymour and Flanigan, Rt 611 Conversations were started with property owner, Raymour and Flanigan, and a design created for a rain garden at the base of the large sign, near the entrance drive to the Cinemark movie complex. Raymour and Flanigan declined to participate after several conversations, no reason given.
- ➤ Weis Market parking lot water was observed ponding, with no outlet, near a light pole in the parking lot.

➤ Stroud Mall and buried Flagler Run – a number of storm drains were identified in the Stroud Mall parking lot, all of which lead to Flagler Run, which is buried under the parking lot. A number of "green islands" could be created in the parking lot, reducing the number of parking spaces available. Perhaps a better solution would be to investigate "daylighting" Flagler Run and creating a green buffer along the stream to treat parking lot runoff. This expensive concept would best be considered with the re-development of the Stroud Mall itself. See "Daylighting Flagler Run" below.

"DAYLIGHTING" FLAGLER RUN

Some long-time residents remember when the small tributary to Pocono Creek, known as Flagler Run, was an excellent place to catch trout. When the first mall to come to the Poconos, Stroud Mall, was built in the 1970's, Flagler Run was put in a large culvert, underneath the mall. It still runs in that culvert, and receives all the runoff from the mall parking lot, along with any litter and trash dumped in the parking lot.

Flagler Run, like most of the tributaries to Pocono Creek, starts in the wetlands and vernal pools on high ground near the Tannersville Cranberry Bog. It flows through Pocono and Stroud Township residential areas, including Olde Mill Run development, until it reaches the Stroudsburg School District's Chipperfield Drive campus. It then flows through some undeveloped properties until it reaches the culvert at the northwest corner of Stroud Mall.

Could Flagler Run be returned to the surface, "daylighted," along the western edge of the Stroud Mall parking lot? Could the proposed trail to link the school campus on Chipperfield with the Stroud High School campus on West Main Street extend along a daylighted Flagler Run to Pocono Creek? Could the two (2) projects be combined to create a marvelous linear park through the Stroud commercial corridor?

