

Shrewsbury Township

Green Infrastructure Action Plan

What is a “Green Infrastructure Action Plan”?

Comprehensive plan that builds upon past planning work –

Finding conclusions

Documents existing and new opportunities

Prioritizes opportunities as a **guide for**

funding opportunities

and revisions to the **Official Map**

Township Sustainability Goals:

- improve **water quality** throughout the Township
- protect and enhance the **natural resources** of the Township
- proactively address existing and future **regulations**
(MS4’s, TMDL’s, etc.)

- improve natural habitat and aesthetics
- reduce maintenance responsibility and associated costs
- provide opportunities for connections (trails, riparian buffers, open space, etc.)
- encourage a comprehensive approach to address storm water management



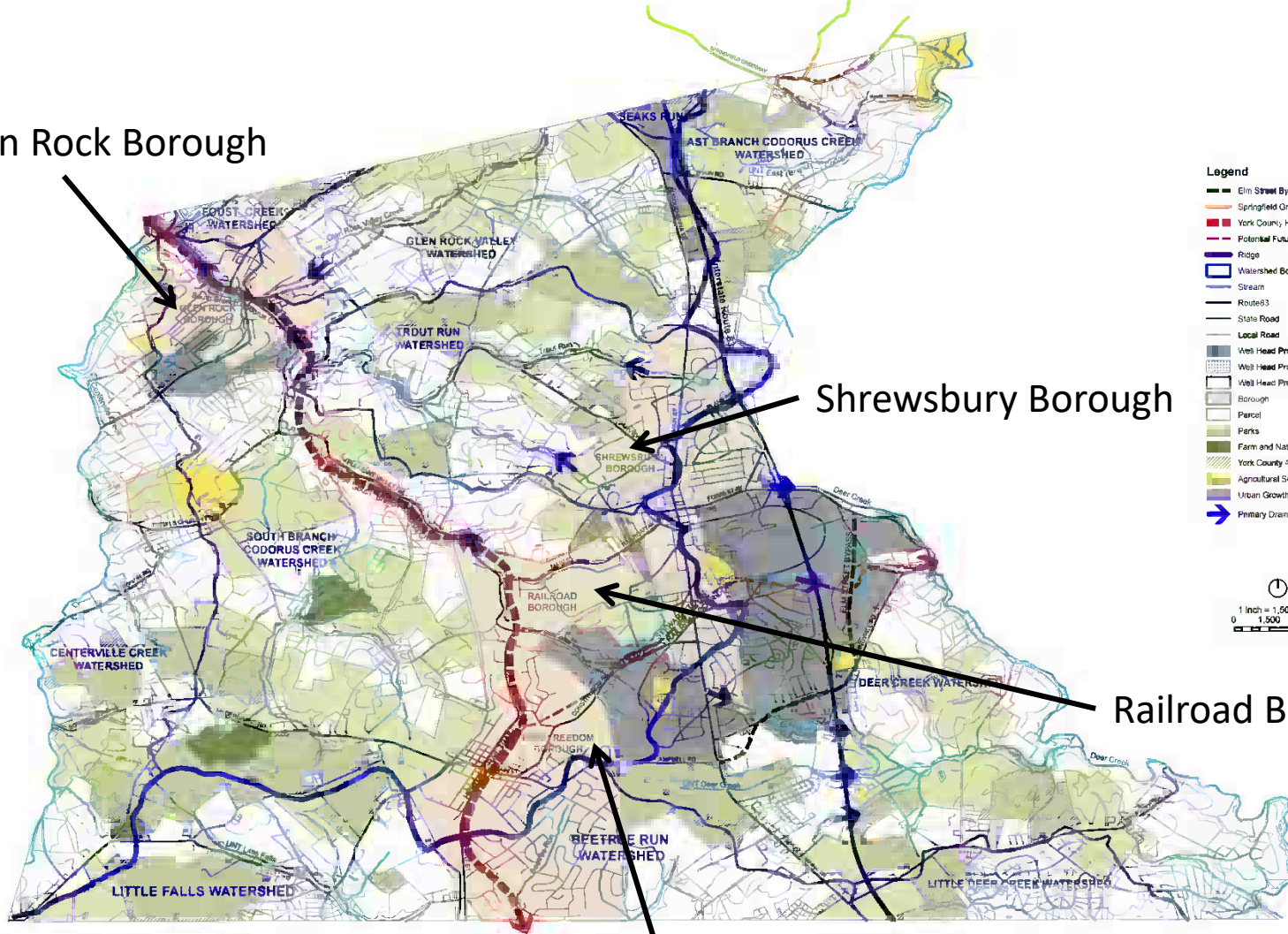
Township surrounds and connects four Boroughs

Glen Rock Borough

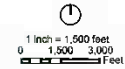
Shrewsbury Borough

Railroad Borough

New Freedom Borough

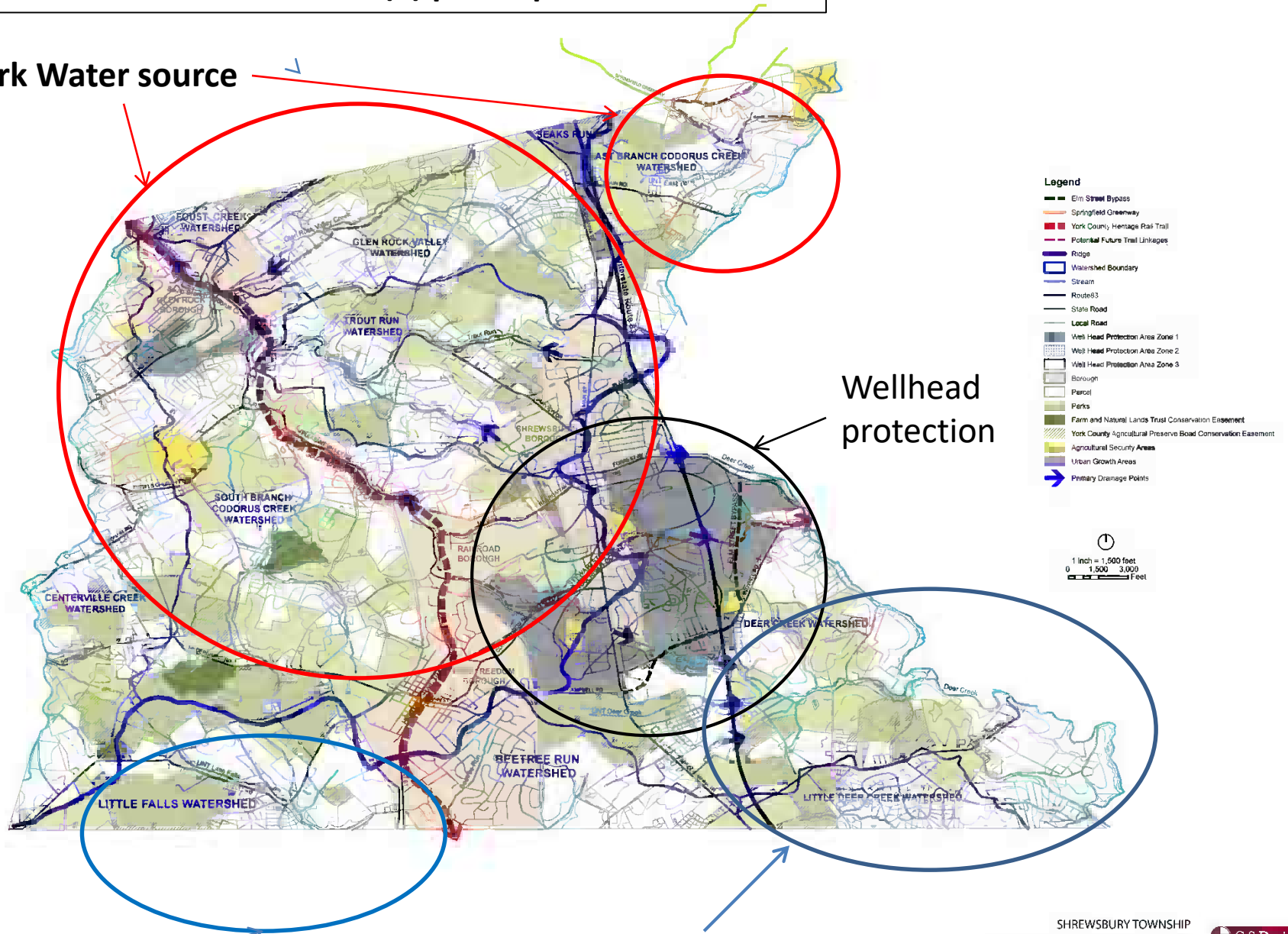


- Legend**
- Elm Street Bypass
 - Springfield Greenway
 - York County Heritage Rail Trail
 - Potomac Future Trail Linkages
 - Ridge
 - Watershed Boundary
 - Stream
 - Route 63
 - State Road
 - Local Road
 - Well Head Protection Area Zone 1
 - Well Head Protection Area Zone 2
 - Well Head Protection Area Zone 3
 - Borough
 - Parcel
 - Parks
 - Farm and Natural Lands Trust Conservation Easement
 - York County Agricultural Preserves Board Conservation Easement
 - Agricultural Security Areas
 - Urban Growth Areas
 - ➔ Primary Drainage Points



- Source water for several (4) public providers

York Water source



Wellhead protection

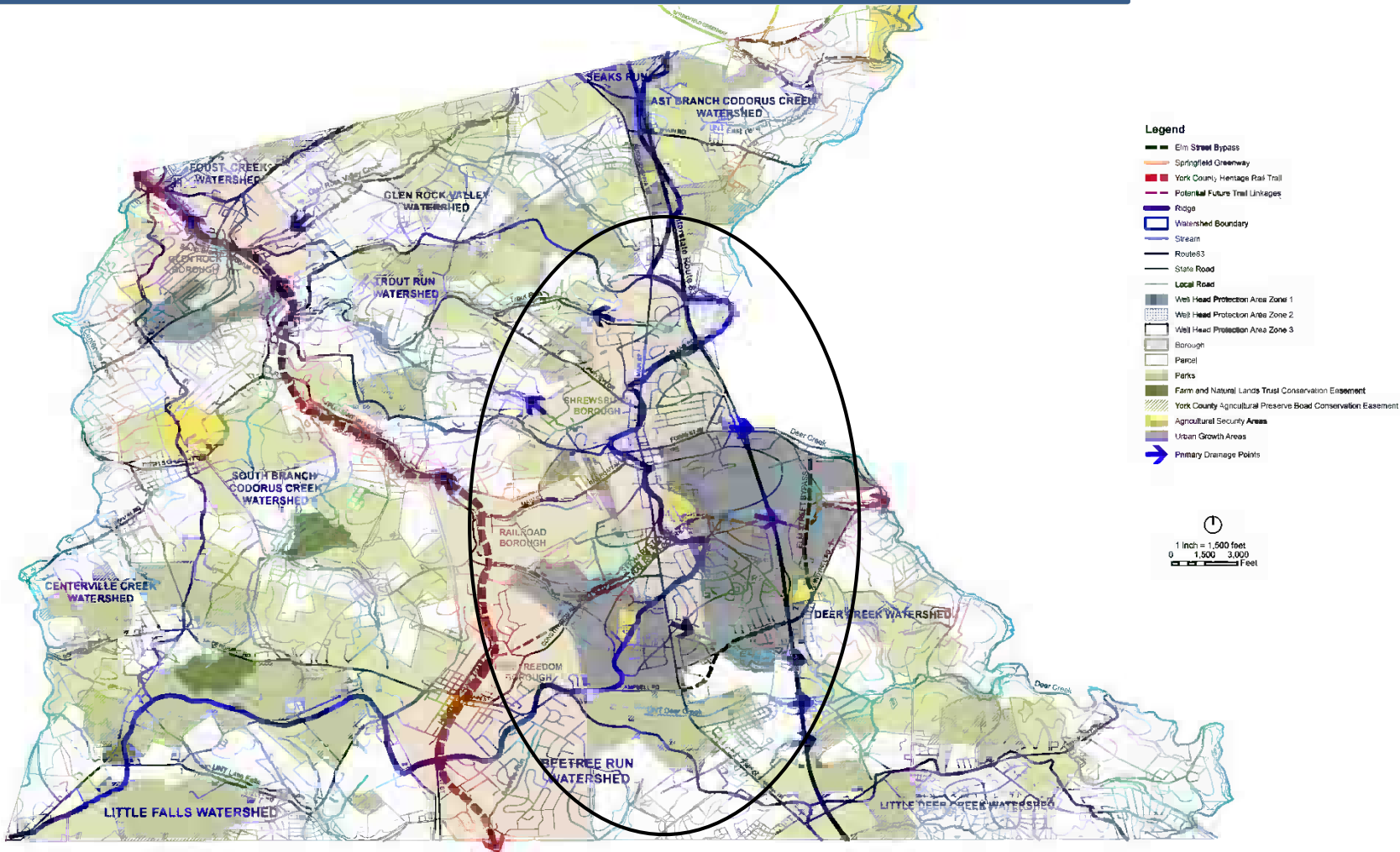
Baltimore City/Metro Source

Hartford County source

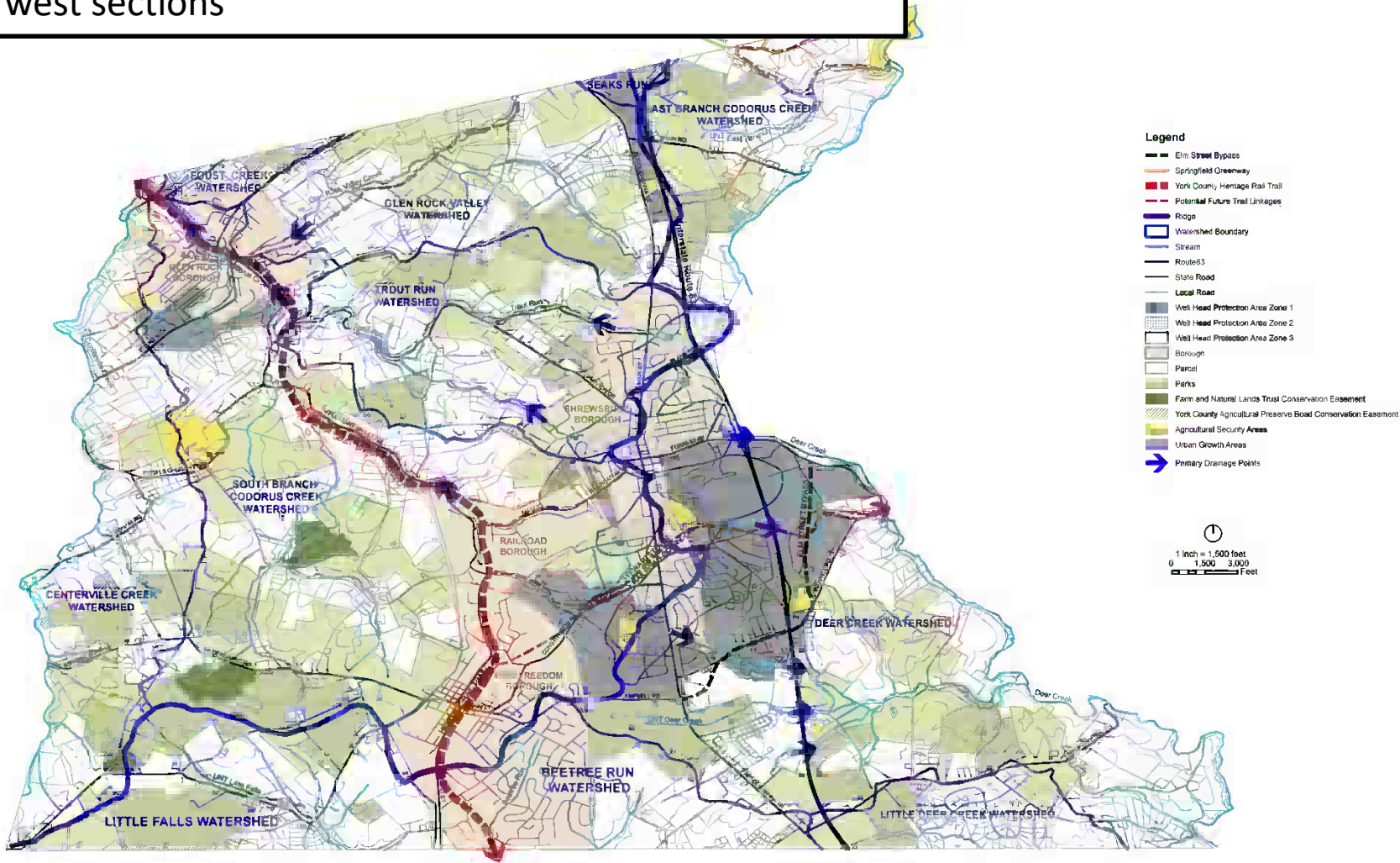
SHREWSBURY TOWNSHIP
EXISTING CONDITIONS
 (REVISED) 11/14
 1/21 JAR/2015
 315 North Street, Lititz, PA | (717) 627-4440
 REV. MARCH 5, 2015



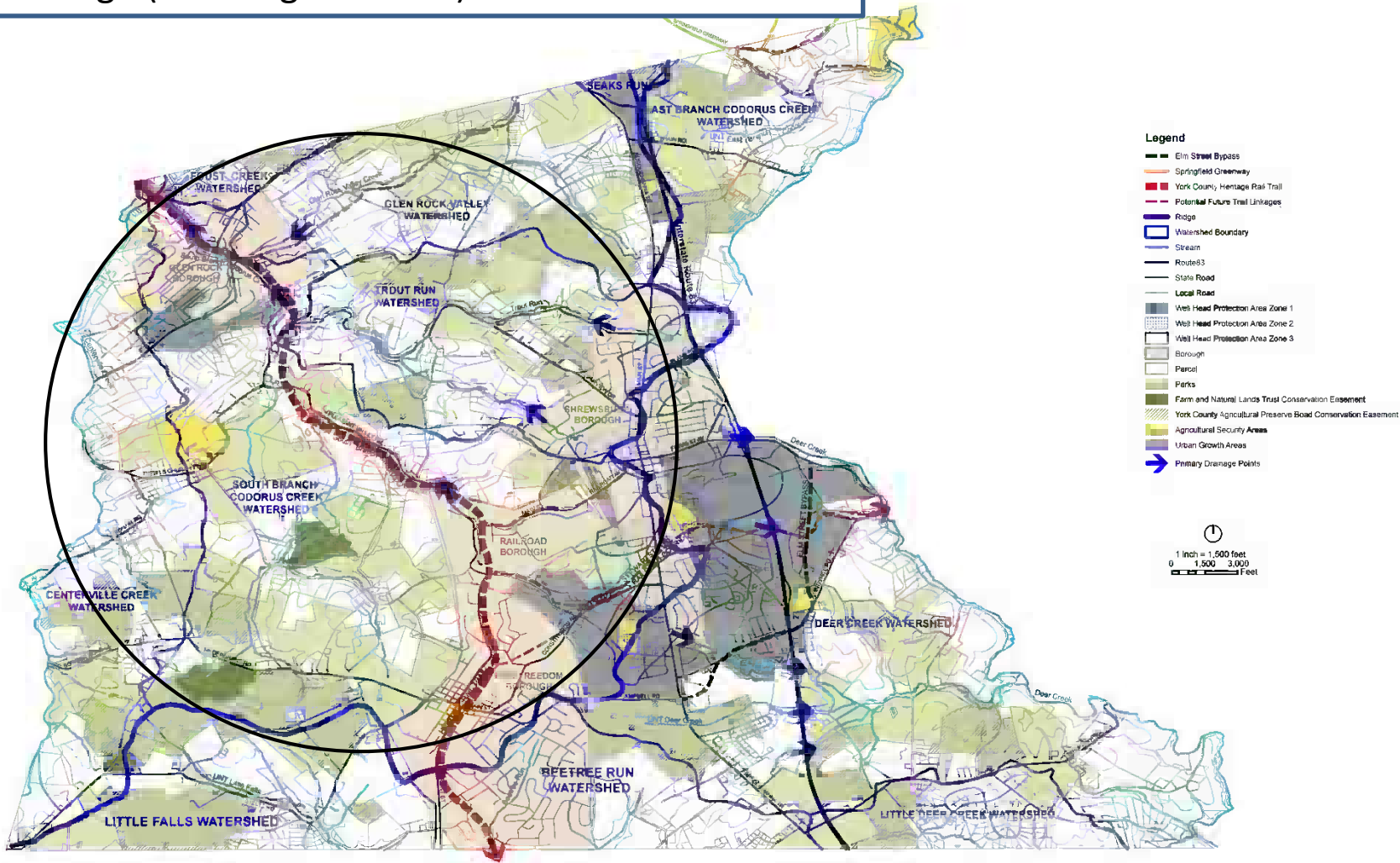
Discharges from urban areas to natural areas - New Freedom, Shrewsbury and Railroad Boroughs (Stream quality concerns)



- Ridgeline that separates drainage areas into east and west sections



Discharges natural areas to urban areas -Glen Rock Borough (Flooding concerns)

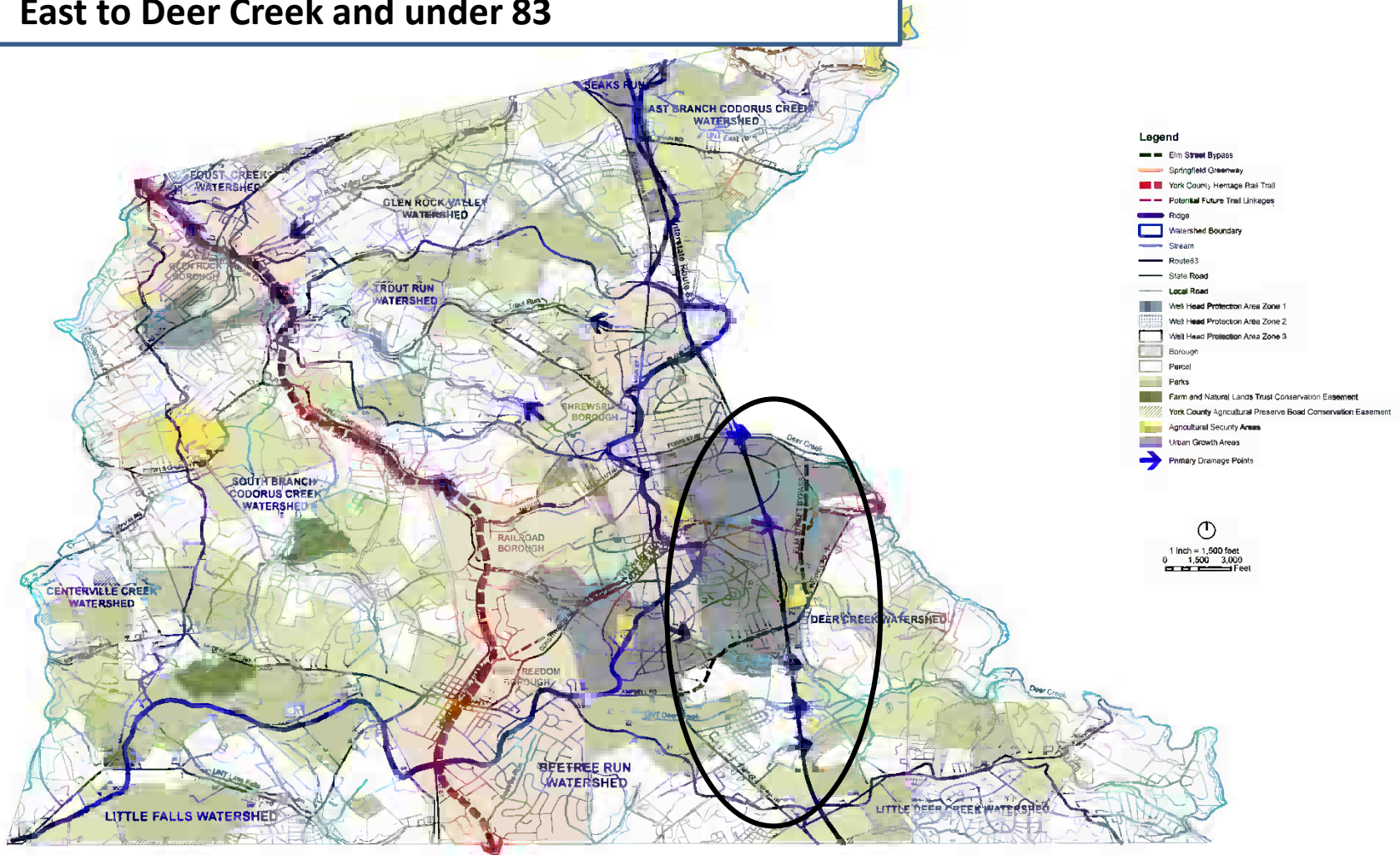


West Side Characteristics:

South Branch Codorus Creek, Glen Rock Valley and Trout Run all flow directly to Glen Rock Borough
 Headwaters are largely agricultural lands and rural
 Biggest issues are managing run-off and flood storage
 potential to protect Glen Rock Borough

Ridgeline that separates drainage areas into east and west sections

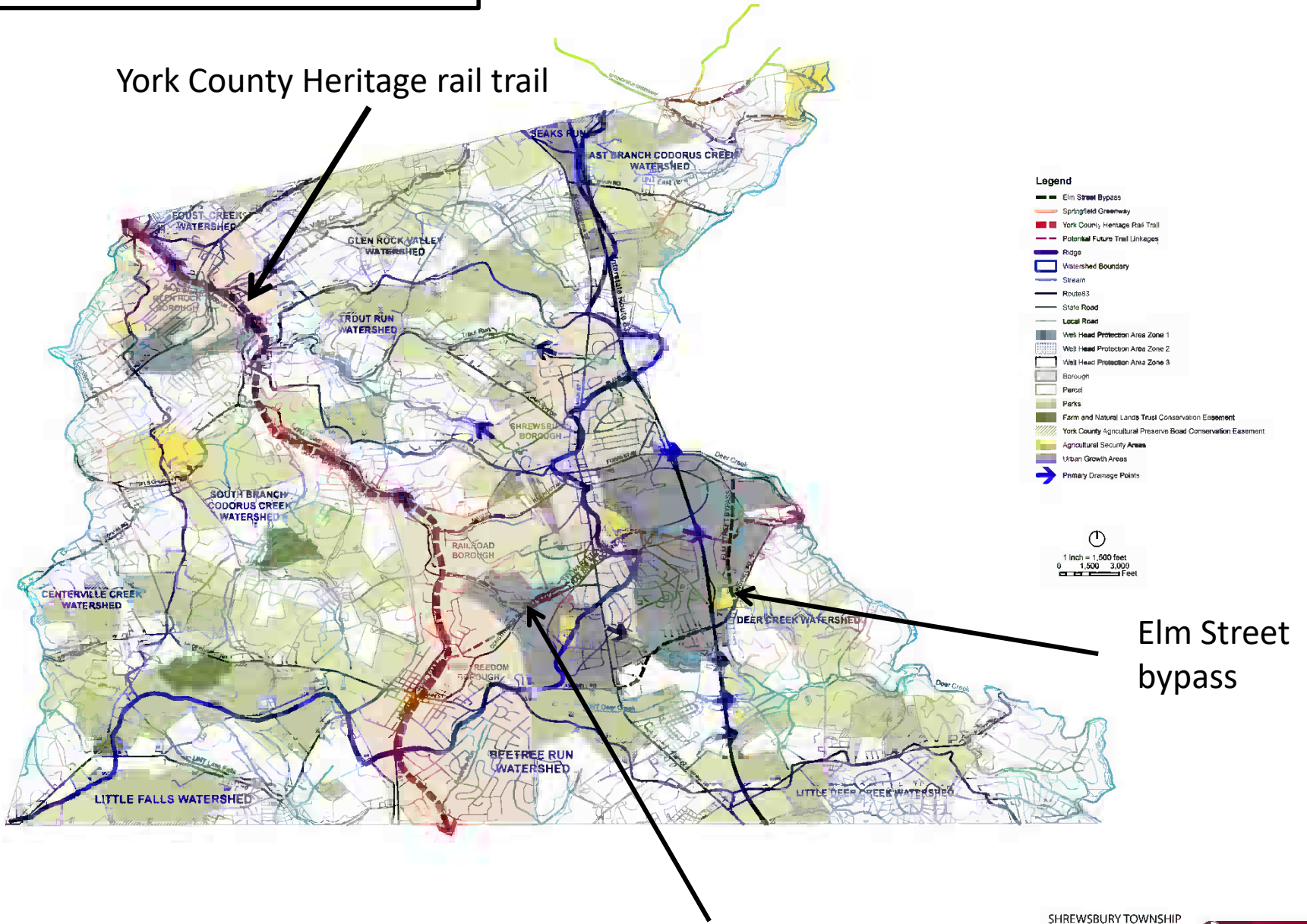
East to Deer Creek and under 83



East Side Characteristics:

- Deer Creek Watershed predominate drainage area
- Headwaters are urban with related stormwater run-off issues
- Northern unnamed tributary drains majority of Shrewsbury Borough
- Culverts under 83 drain majority of the urban area

• **Trails, corridors and greenways**

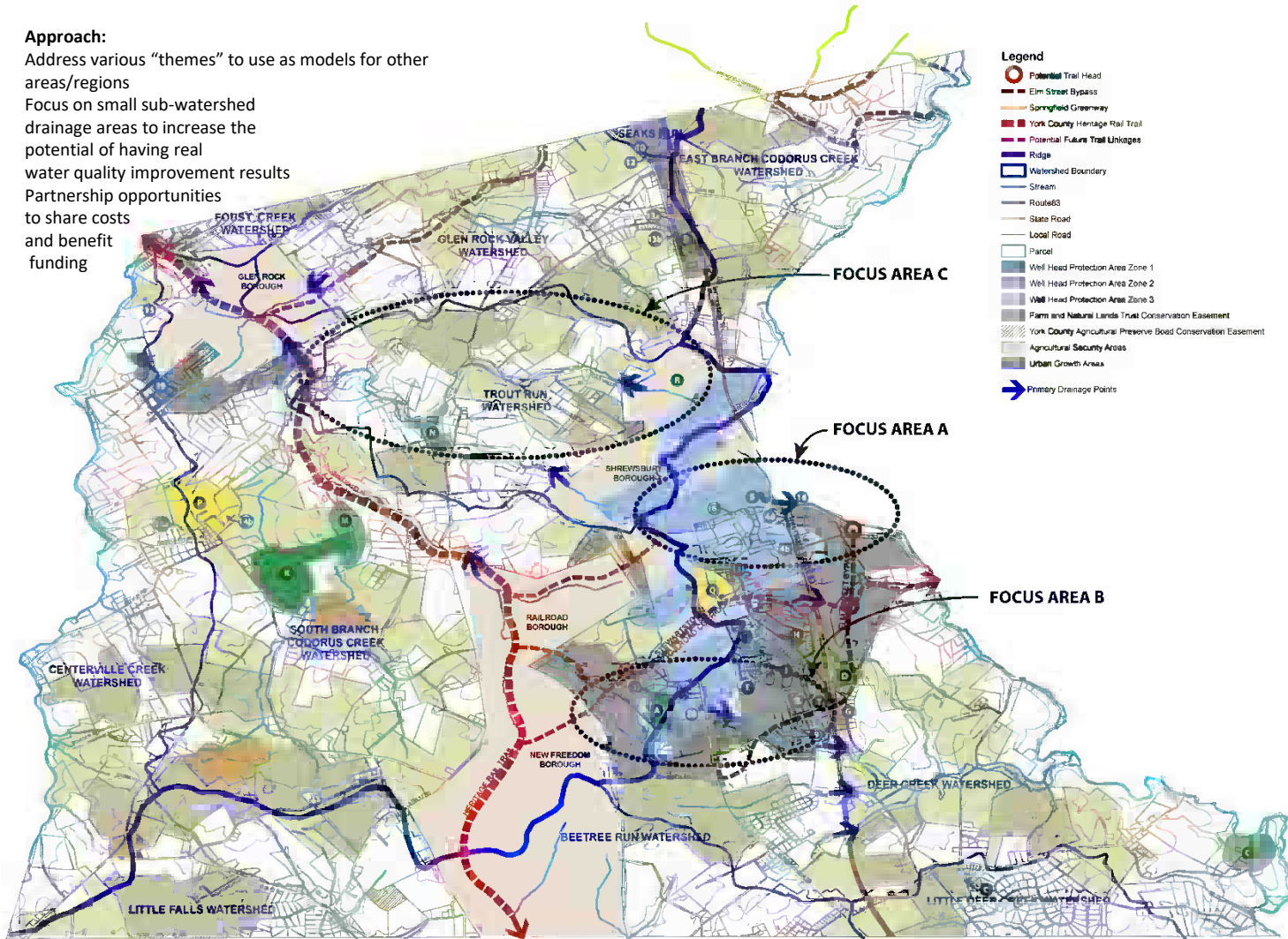


York County Heritage rail trail

Elm Street bypass

Stewartstown Railroad

Approach:
 Address various "themes" to use as models for other areas/regions
 Focus on small sub-watershed drainage areas to increase the potential of having real water quality improvement results
 Partnership opportunities to share costs and benefit funding



MAP KEY

PARKS AND OPEN SPACE		
MAP #	PARK NAME	NOTES
A	MILLER PARK	RIPIARIAN ENHANCEMENT TRAIL
B	HAMELTOWN PARK	
C	VACANT FIELD	NEIGHBORHOOD #1 ANNUAL RENT AND MAINTAINS
D	WINDY HILL PARK	2ND LARGEST PARK IN TOWNSHIP (INCLUDING BALLFIELD AND TRAIL)
E	WINCHESTER PARK	DCNR GRANT FOR IMPROVEMENTS
F	BRIARWOOD PARK	PLANTED WITH TREES IN 2012 (ISOLATED)
G	VACANT	WETLANDS
H	VACANT	WETLAND AREA MAINTAINED BY NEIGHBORING H.O.A.
I	VACANT	SHREWSBURY BOROUGH WELL SITE
J	GLEN ROCK COMMUNITY PARK	
K	BON AIR COUNTRY CLUB	
L	SPRING VALLEY COUNTY PARK	

NATURAL AREAS		
MAP #	OWNER	NOTES
M	SHAFFER'S HOLLOW	PROTECTED FOREST HABITAT
N	SEITZLAND MARSH	LARGEST SEDGE WETLAND IN YORK COUNTY
O	DEER CREEK WOODS	SUCCESSIONAL HARDWOOD FOREST

SCHOOLS		
MAP #	OWNER	NOTES
P	SUSQUEHANNA HIGH SCHOOL	
Q	SHREWSBURY ELEMENTARY SCHOOL	
R	DUNKARD BRETCH SCHOOL	
S	STRAWBERRY FIELDS PARK	PASSIVE RIPIARIAN ZONE
T	SUSSEX PLACE OPEN SPACE	OWNED BY TWP. RECEIVES SWM RUNOFF FROM ADJACENT DEVELOPMENT

STORMWATER BASINS		
MAP #	PARK NAME	NOTES
1	MILLER PARK ROYDAK PROPERTIES LP	TRAIL, BASIN RETROFIT (CSD HAS PLANS)
2	POINTE AT PRESIDENTIAL HEIGHTS H.O.A.	1 BASIN
3	VILLA OFF-SITE SWM	OFF-SITE BASIN FOR THE VILLAS HEAVY SPRING FLOW IN THIS AREA
4, b	SHREWSBURY COMMONS	2 BASINS
5	GIANT SHOPPING CENTER	1 BASIN
6	GRACE FELLOWSHIP CHURCH	
8	SUSSEX PLACE	PLANNED DEVELOPMENT SWM
9	RUSSET FARM COMMUNITY	1 BASIN, 1 IMPROVED AND NATURALIZED SWALE
10	SHREWSBURY TOWNSHIP	OUTSIDE OF TOWNSHIP? (WAS #12 IN CSD PACKET)
11	GLEN ROCK COMMUNITY PARK	OWNER - MICHAEL WEAVER?
12	BLACKBIRD, LLC	VETERINARY
13a,b	ANTIQUE MARKETS LP	2 BASINS
14	SUSQUEHANNA HIGH SCHOOL	2 BASINS
15	FAIR SCHOOL DEVELOPMENT	1 BASIN
16	STEWARTS	1 LARGE BASIN - COMMON AREA FOR WATER QUALITY TREATMENT
19	PINE STREET BASIN	1 BASIN
20	SHREWSBURY LUTHERAN RETIREMENT COMMUNITY	WETLAND AND BASIN, WETLAND ENHANCEMENT AT A SEEP/SPIRING IN HEADWATERS
21	SOUTHERN YORK RECREATION COMPLEX EXPANSION	
22	SOUTH BRANCH CODORUS CREEK RESTORATION	

Opportunity Areas Identified:
 Parks and available open space which includes
 Identified natural areas
 Schools and Institutions
 Stormwater management facilities

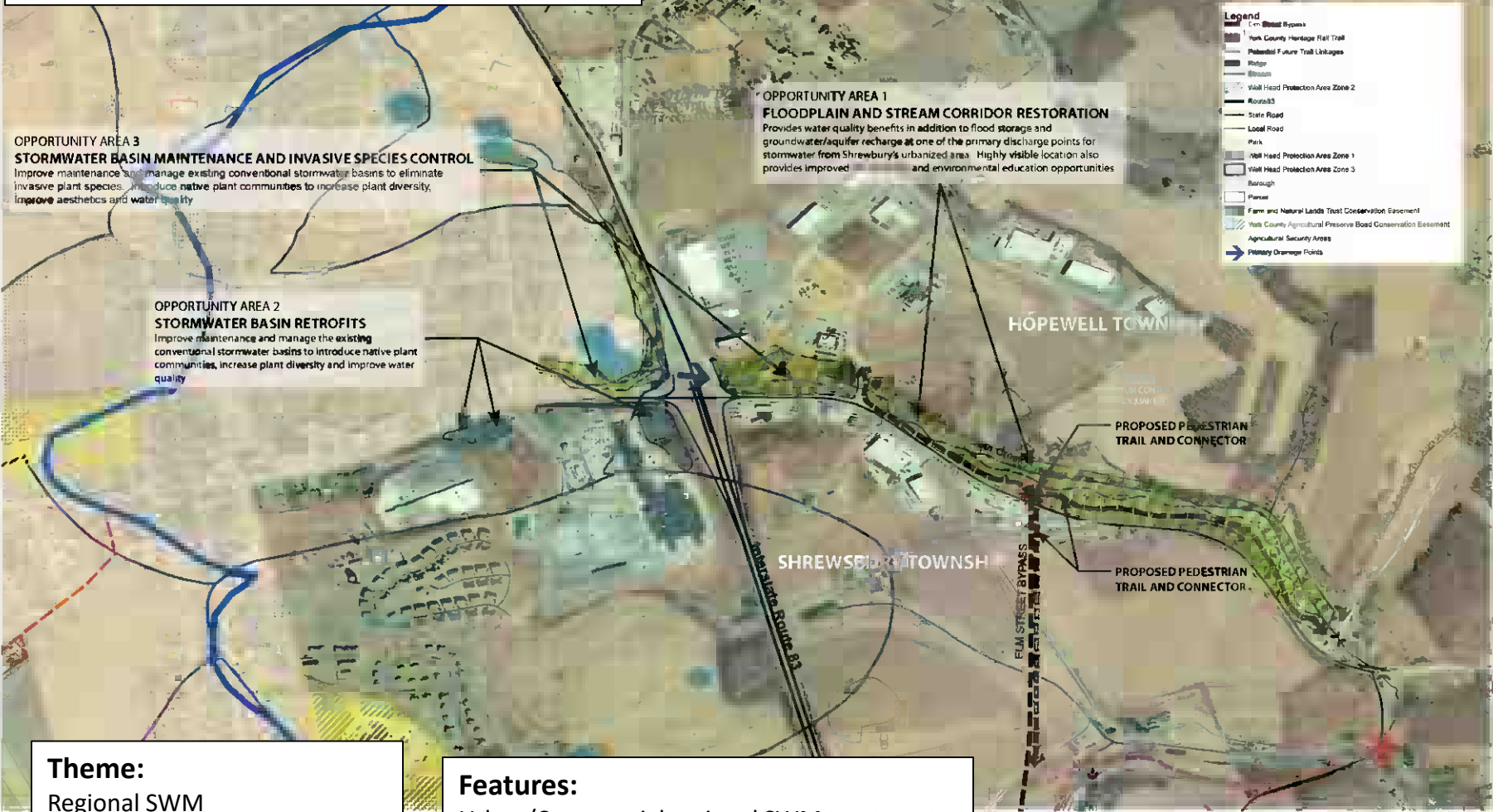
Other Considerations

Trails and greenways
 Willing land owners
 Existing restoration
 Environmental Linkages – linking forest patches and riparian buffers

SHREWSBURY TOWNSHIP GREEN INFRASTRUCTURE OPPORTUNITIES PLAN GREEN ACTION PLAN



851 corridor improvements



Theme:

Regional SWM
 Urban drainage
 SWM basin retrofits for water quality
 Sub-watershed improvement potential
 Inter-municipal cooperation

Features:

Urban/Commercial regional SWM treatment
 Water quality habitat improvement and stream temperature improvement
 Flood hazard mitigation
 Environmental education – visible site
 Trail link and loop trail potential
 Detention basin retrofits

SHREWSBURY TOWNSHIP WATERSHED ACTION PLAN
FOCUS AREA A - DETAIL PLAN
 DEER CREEK GREEN INFRASTRUCTURE CORRIDOR
 February 2015
 315 North Street, Lititz, PA | (717) 627-4440

C.S. Davidson, Inc.
 a leader in land assessment

Land Studies

REV. MARCH 5, 2015

At 83 PennDOT roadway run-off treatment

Miller Park – Elm Street Bypass connections

**OPPORTUNITY AREA 1
WETLAND ENHANCEMENT AND TRAIL LINK**
Enhance the existing wetland and natural areas by improving maintenance to control invasive plants and introduce a diversity of native plant species to increase biodiversity. The highly visible location also provides the potential for a trail linking Miller Park with the future Stewartstown Rail Trail and the existing Heritage Rail Trail.

**OPPORTUNITY AREA 2
WETLAND ENHANCEMENT AND TRAIL LINK**
Enhance the existing wetland that is part of the open space for the retirement community and provide a trail link to Miller Park and through Strawberry Fields Park.

**OPPORTUNITY AREA 3
TRAIL LINK TO ELM STREET BYPASS**
Provides a trail linking densely developed suburban areas with the future Elm Street Bypass and ultimately a proposed trail head at Deer Creek.

Legend

- Potential Future Trail Linkages
- Ridge
- Stream
- Well Head Protection Area Zone 1
- Road/CS
- State Road
- Local Road
- Parks
- Parcel
- Well Head Protection Area Zone 2
- Well Head Protection Area Zone 3
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SOUTH BRANCH
CODORUS CREEK
WATERSHED

SHREWSBURY
BOROUGH

DEER CREEK
WATERSHED

SHREWSBURY TOWNSHIP

MILLER PARK

STRAWBERRY FIELDS
PARK

STRAWBERRY ROAD

ELM STREET BYPASS

Theme:
open space linkages within developed areas
Integration with the existing rail corridor
Headwater treatment areas

Features:
Miller Park / DAK Properties -Wildlife habitat park potential with basin retrofit –
Connection to the Shrewsbury Lutheran Retirement Community
Wetland restoration
Headwaters treatment
Connection to Strawberry Fields and Forrest Lakes residential areas
DCNR Grant in place for Winchester park
Potential trail connections

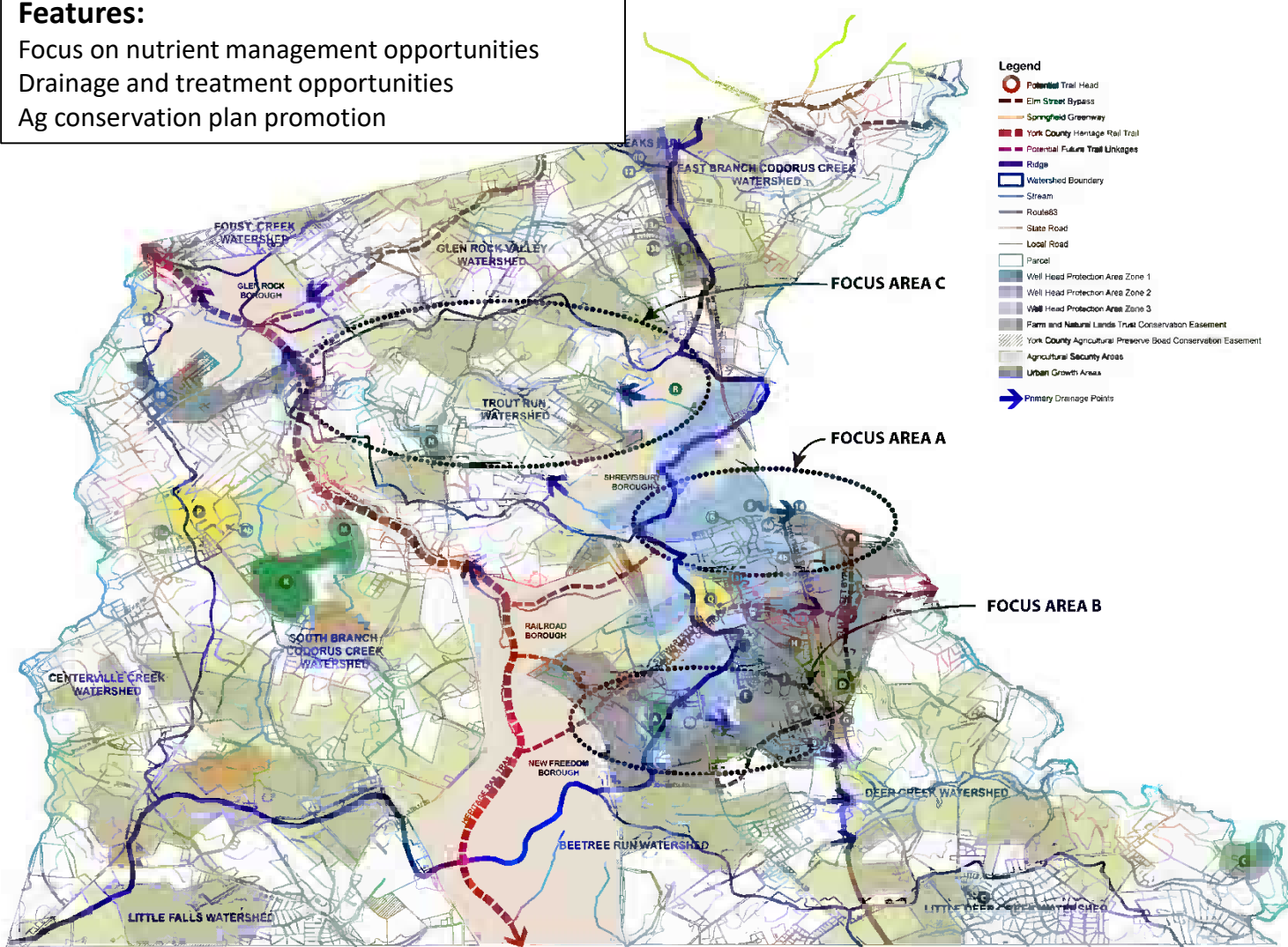


SHREWSBURY TOWNSHIP WATERSHED ACTION PLAN
FOCUS AREA B - DETAIL PLAN
MILLER PARK GREEN INFRASTRUCTURE CORRIDOR
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Features:

- Focus on nutrient management opportunities
- Drainage and treatment opportunities
- Ag conservation plan promotion



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Focus area C

Theme:

- Continue Ag BMP's and Preservation efforts
- Consider identifying and protection conservation corridors
- Floodplain management

SHREWSBURY TOWNSHIP GREEN INFRASTRUCTURE OPPORTUNITIES PLAN



GREEN ACTION PLAN

REV. MARCH 5, 2015



Path forward

1. Update Official Map
1. Prepare for funding opportunities in the Focus areas
3. Provide strategies for implementing the following throughout the Township:

Detention basin retrofits

Vegetation Management Strategies

Hedgerow buffer establishment / Riparian buffer establishment

Forest understory restoration

Converting lawn and ag lands to meadow

Steep Slope Planting strategies

Preferred native plant reference list for Township

Long term maintenance strategies

Interaction with the Ag community to:

Document and implement conservation plans

