

Figure 2.3-83— Vertical Distribution of Fractures in MW310C Between 24 and 200 Feet Below Ground Surface

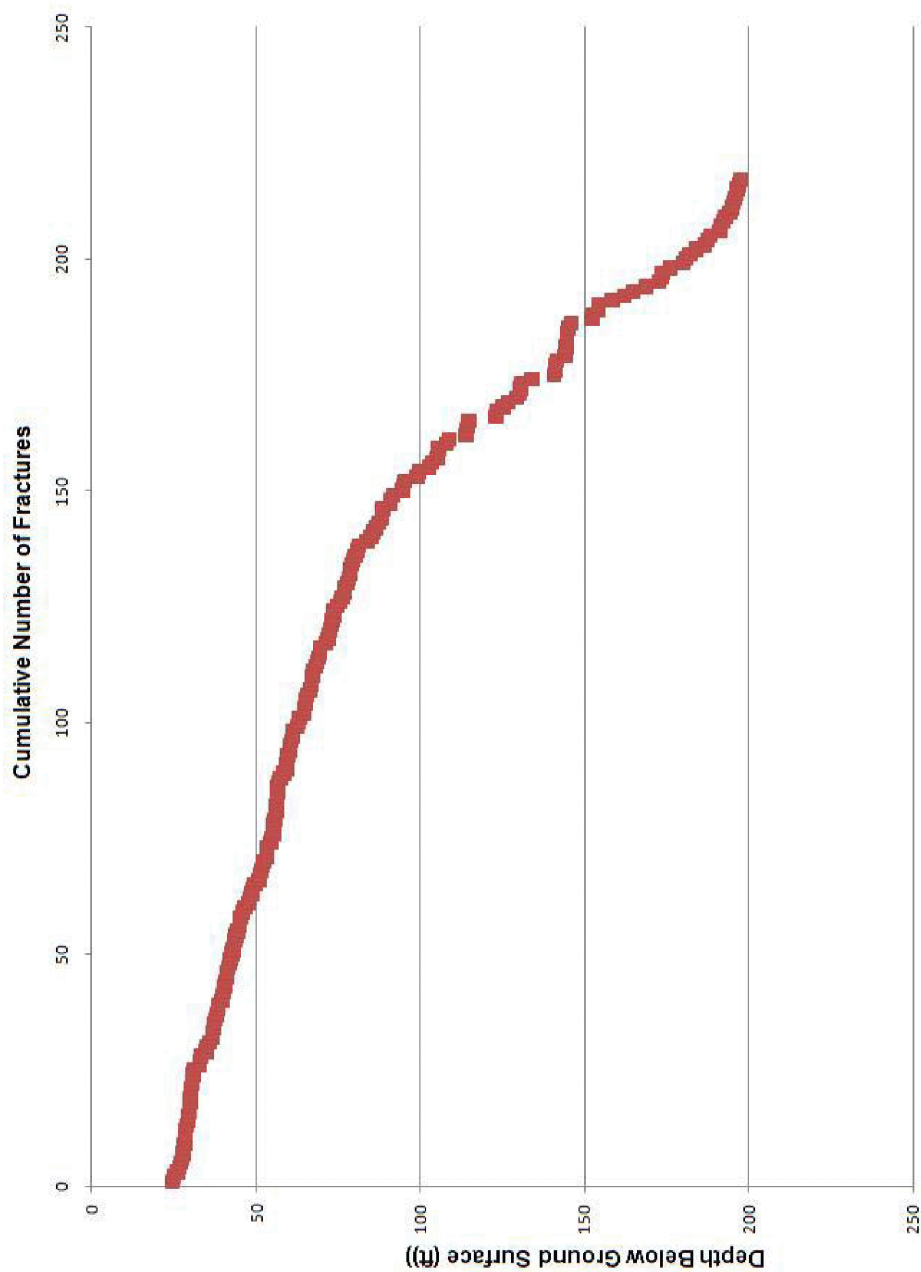


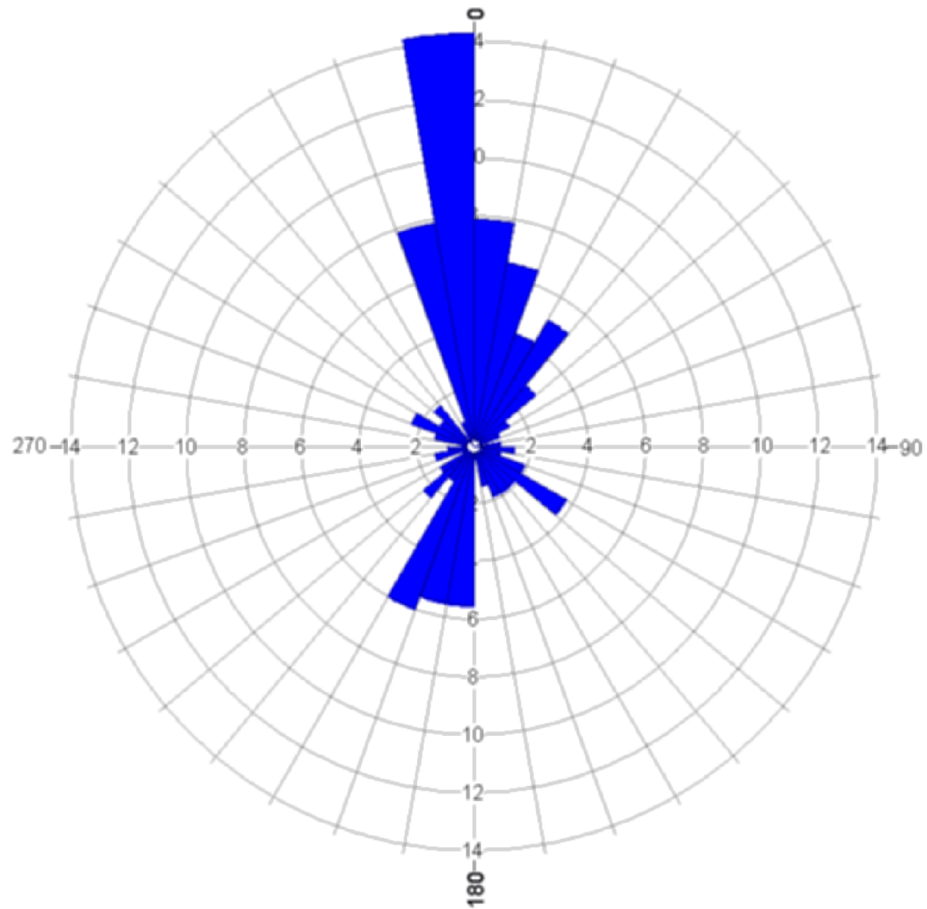
Figure 2.3-84— Distribution of Fracture Dip Directions in Monitoring Well MW310C

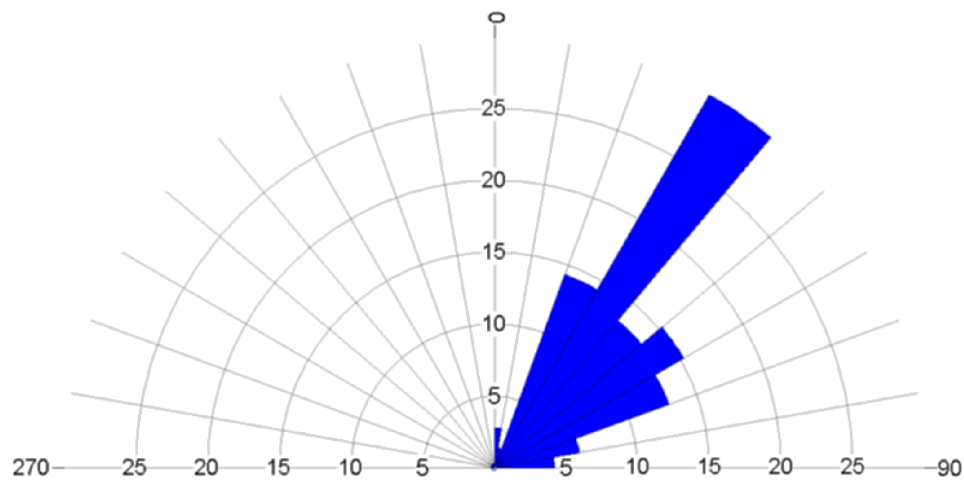
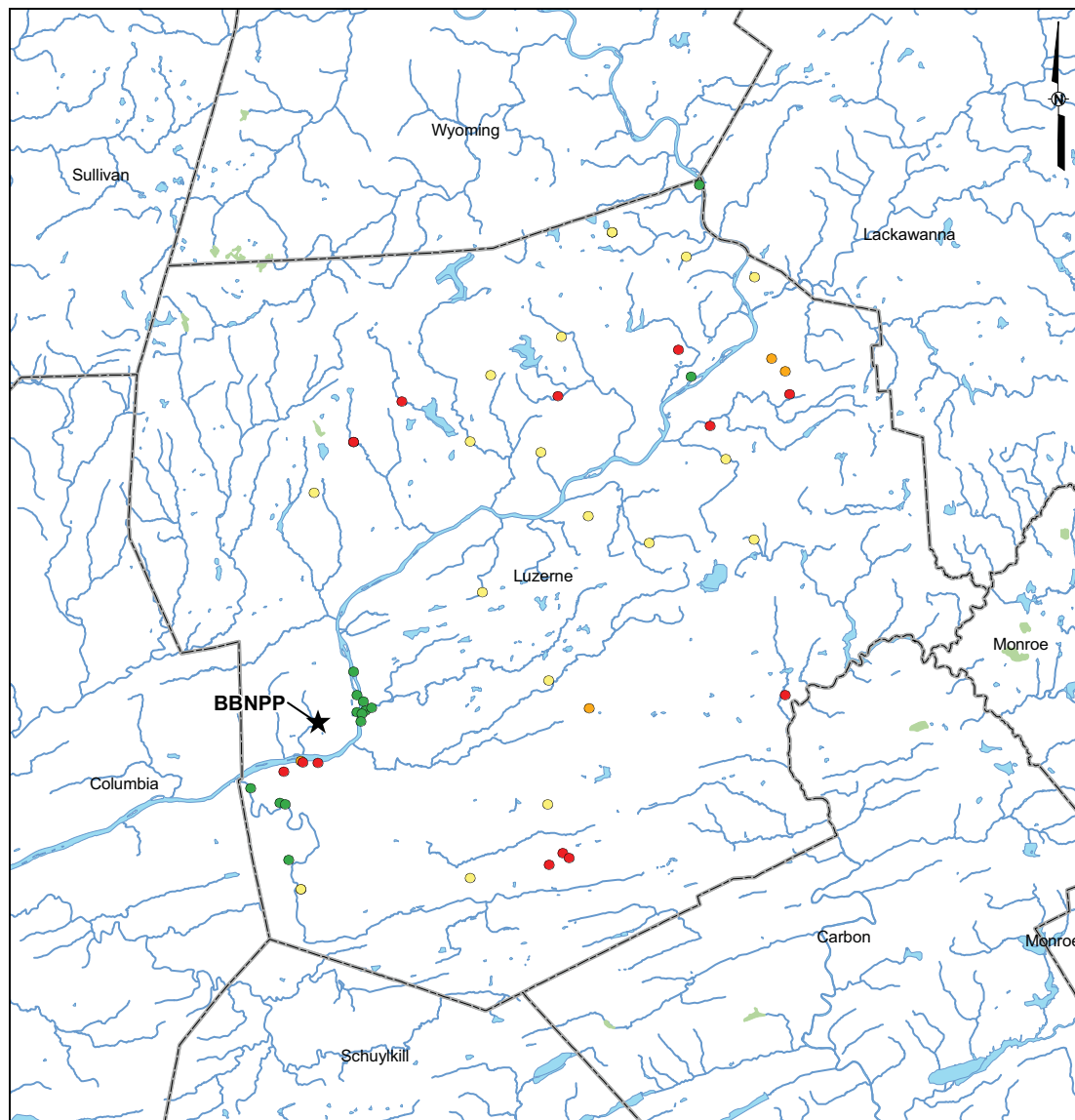
Figure 2.3-85— Distribution of Fracture Dip Angles in Monitoring Well MW310C

Figure 2.3-86— Surface Water Withdrawal Within Luzerne County**LEGEND**

★ Center Point of Bell Bend NPP (BBNPP)

Surface Water Withdrawal (PADEP, 2010)

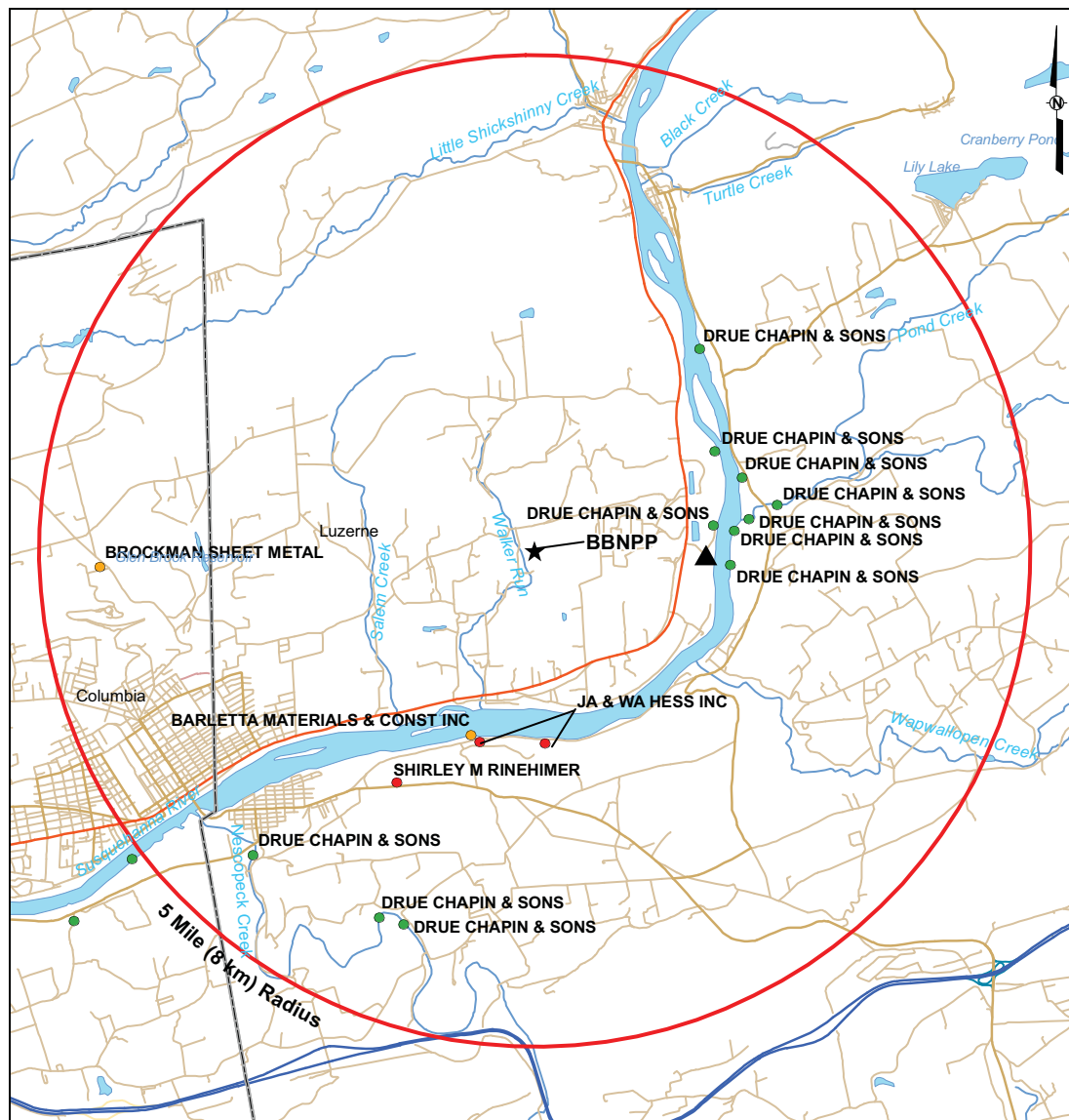
- Agricultural Use
- Commercial Use
- Industrial Use
- Mineral Use
- ▭ County Boundary
- Streams and Rivers
- Waterbody

0 2 4 8 Miles
0 2 4 8 Kilometers

REFERENCES

- ESRI StreetMap Pro [CD-ROM], 2007, rivers, waterbodies, and county boundaries.
- Water Resources from PASDA, published by PADEP. <http://www.pasda.psu.edu/data/dep/> Downloaded June 2010.

10-4310-GIS-A255

Figure 2.3-87— Surface Water Withdrawal Within 5 Mile (8 km) Radius**LEGEND**

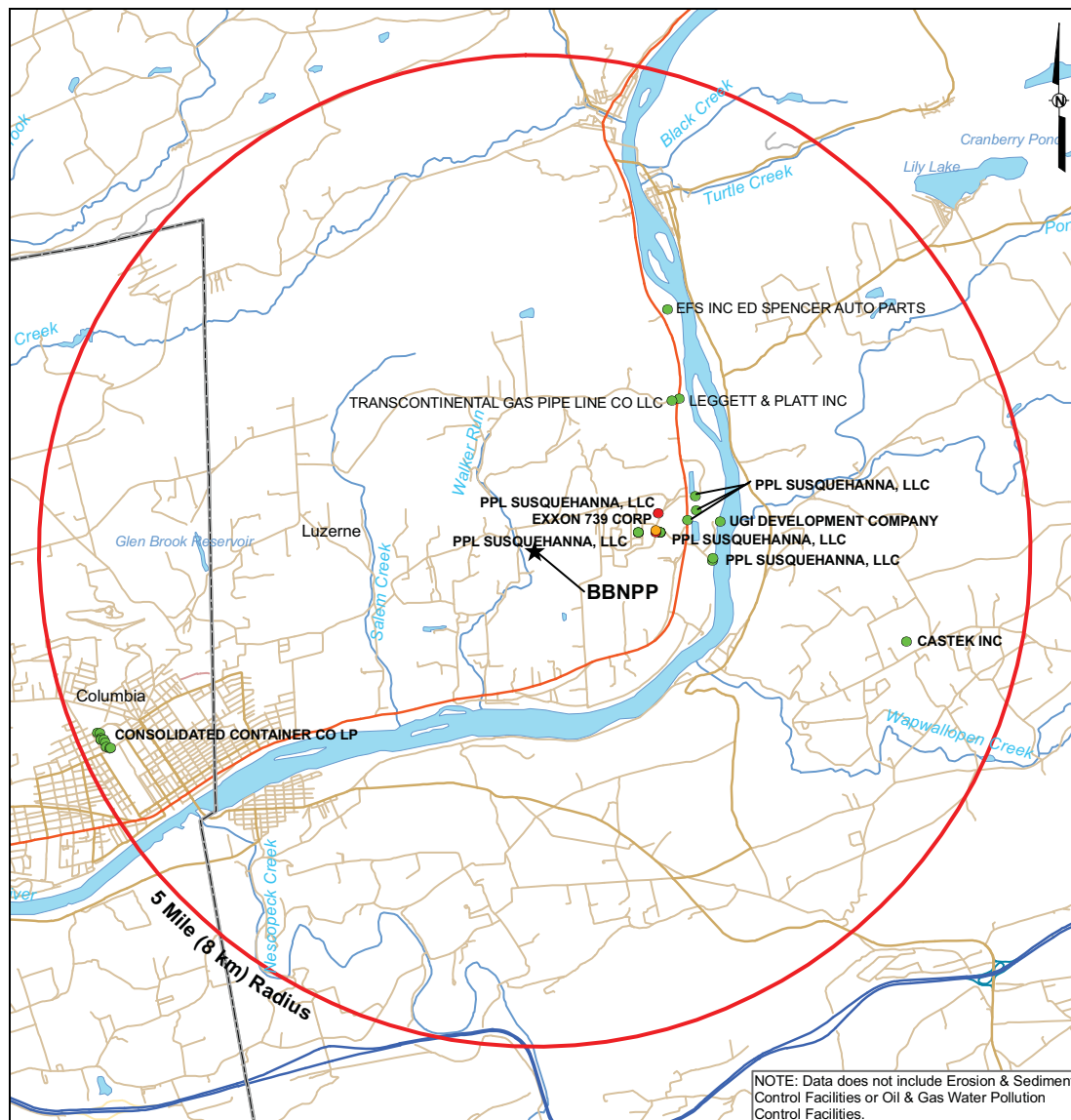
- ★ Center Point of Bell Bend NPP (BBNPP) ▲ Susquehanna Steam Electric Station (SSES) Intake Structure
- Surface Water Withdrawal (PADEP, 2010)
- Agricultural Use ● Industrial Use
 - Commercial Use ● Mineral Use
- BBNPP Reactor 5 Mile (8 km) Radius
- ▭ County Boundary
- Interstate
- Secondary State and County Highway
- Local, Neighborhood, Rural, or City Street
- Streams and Rivers
- Waterbody



REFERENCES

- ESRI StreetMap Pro [CD-ROM], 2007, rivers, waterbodies, and county boundaries.
- Water Resources from PASDA, published by PADEP. <http://www.pasda.psu.edu/data/depl/> Downloaded June 2010.

10-4310-GIS-A256

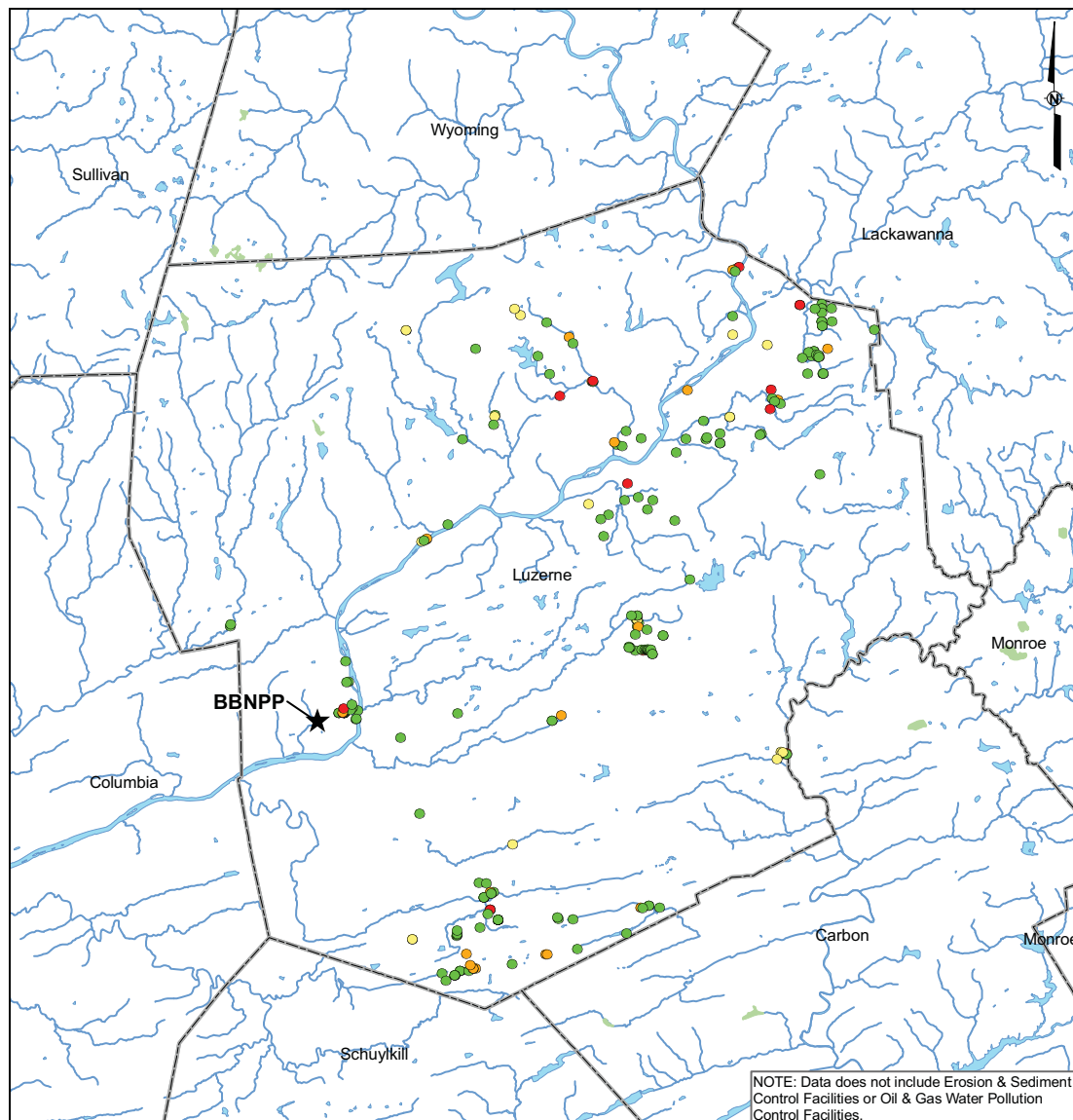
Figure 2.3-88— Water Pollution Control Facility Locations Within a 5 Mile (8 km) Radius**LEGEND**

- ★ Center Point of Bell Bend NPP (BBNPP)
- Water Pollution Facility (PADEP, 2010) - NPDES
 - Discharge Point
 - Treatment Plant
 - Production Service Unit
- 5 Mile (8 km) Radius
- County Boundary
- Interstate
- Secondary State and County Highway
- Local, Neighborhood, Rural, or City Street
- Streams and Rivers
- Waterbody

**REFERENCE**

- ESRI StreetMap Pro [CD-ROM], 2007, rivers, waterbodies, roads, and county boundaries.
- Water Pollution Facility (NPDES) from PASDA, published by PADEP. <http://www.pasda.psu.edu/data/dep/> Downloaded November 23, 2010.

10-4310-GIS-A257

Figure 2.3-89— Water Pollution Control Facility Locations Within Luzerne County**LEGEND**

★ Center Point of Bell Bend NPP (BBNPP)

Water Pollution Facility (PADEP, 2010) - NPDES

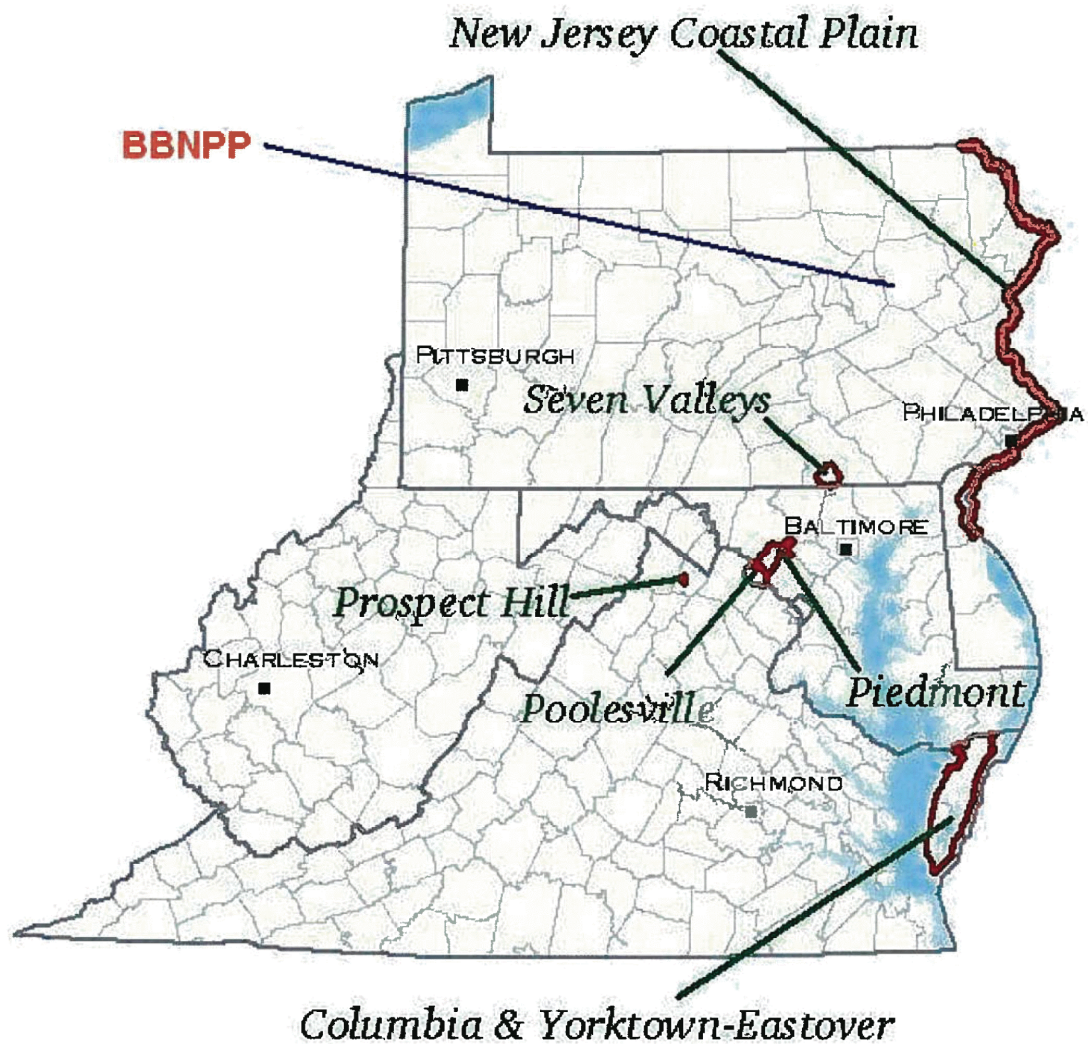
- Discharge Point
- Production Service Unit
- Treatment Plant
- Other

- ▭ County Boundary
- ▬ Streams and Rivers
- ▭ Waterbody

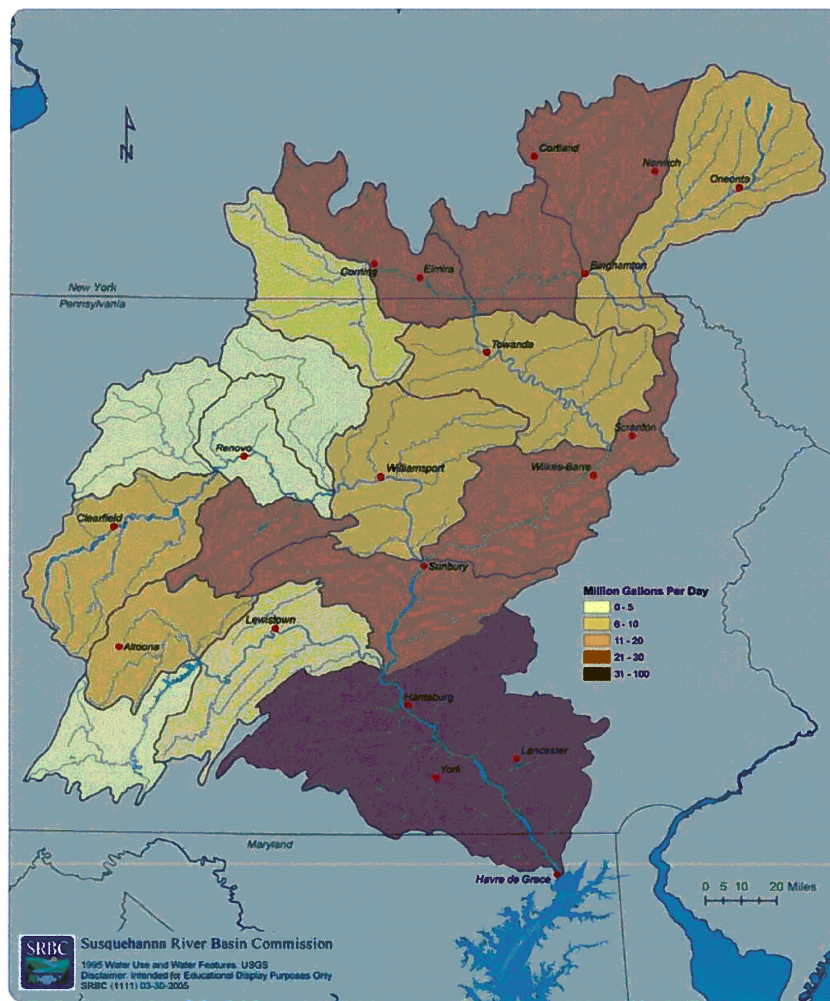
REFERENCE

- ESRI StreetMap Pro [CD-ROM], 2007, rivers, waterbodies, roads, and county boundaries.
 - Water Pollution Facility (NPDES) from PASDA, published by PADEP. <http://www.pasda.psu.edu/data/dep/>
- Downloaded November 23, 2010.

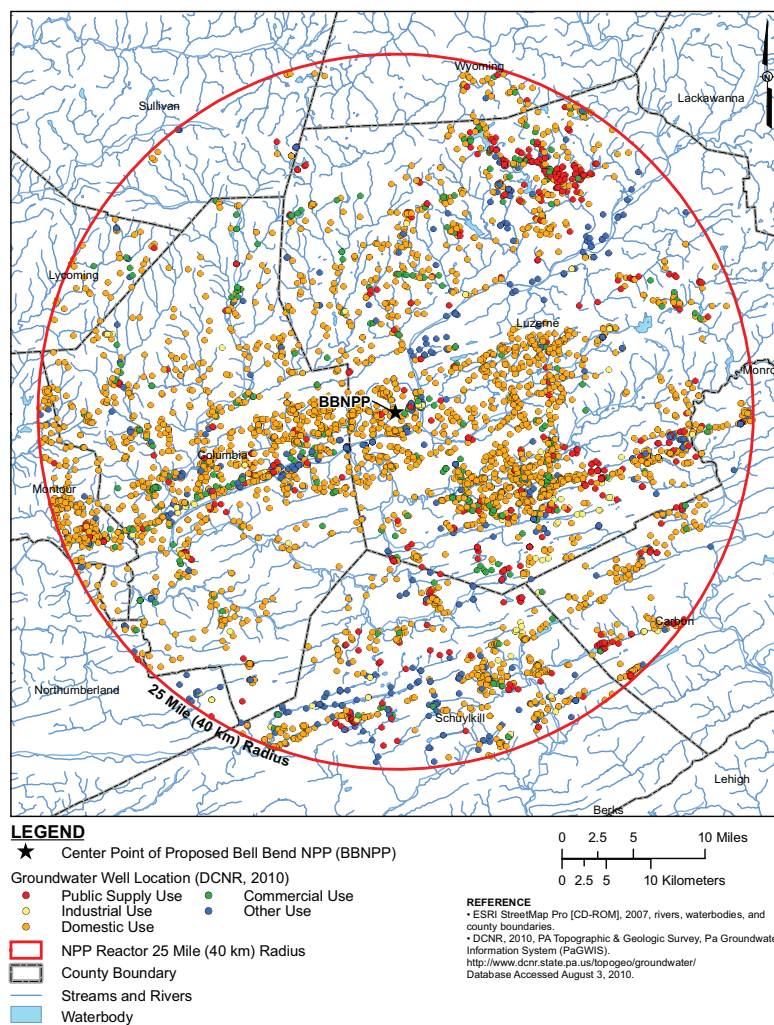
10-4310-GIS-A258

Figure 2.3-90— Sole Source Aquifers Located in USEPA Region 3

Reference: USEPA, 2008b

Figure 2.3-91— Groundwater Use in the Susquehanna River Basin in 1995

Reference: SRBC, 2005

Figure 2.3-92— Groundwater Well Locations Within a 25-Mile (40-km) Radius

10-4310-GIS-A264

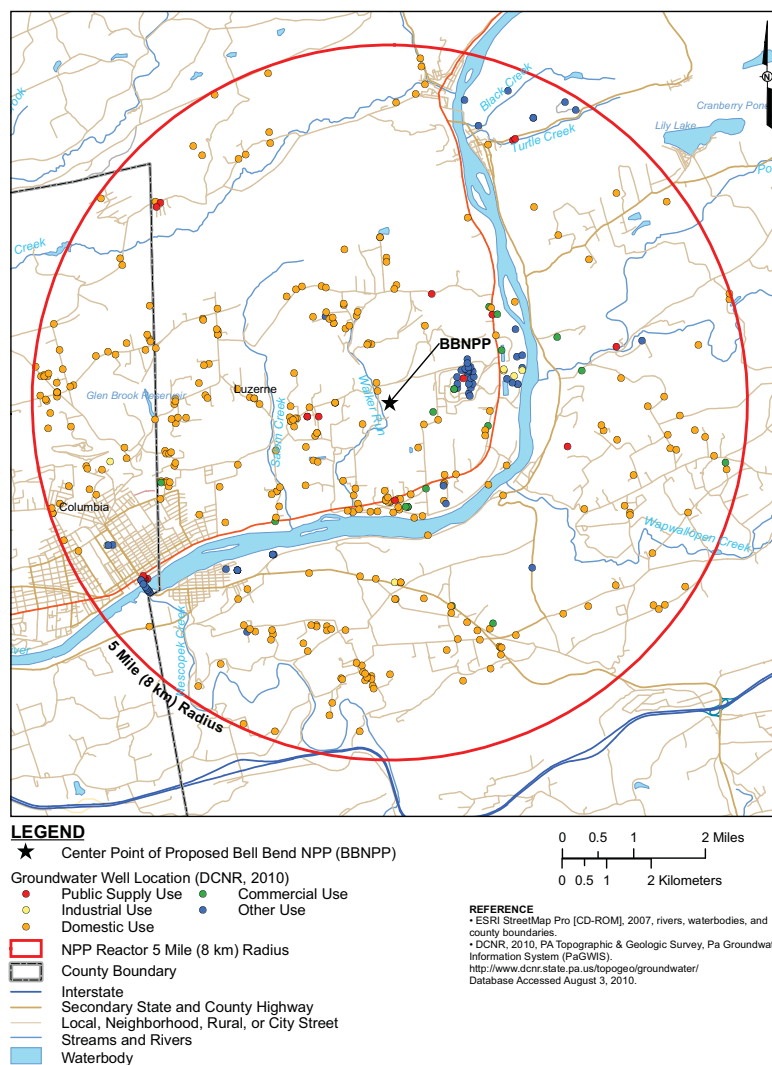
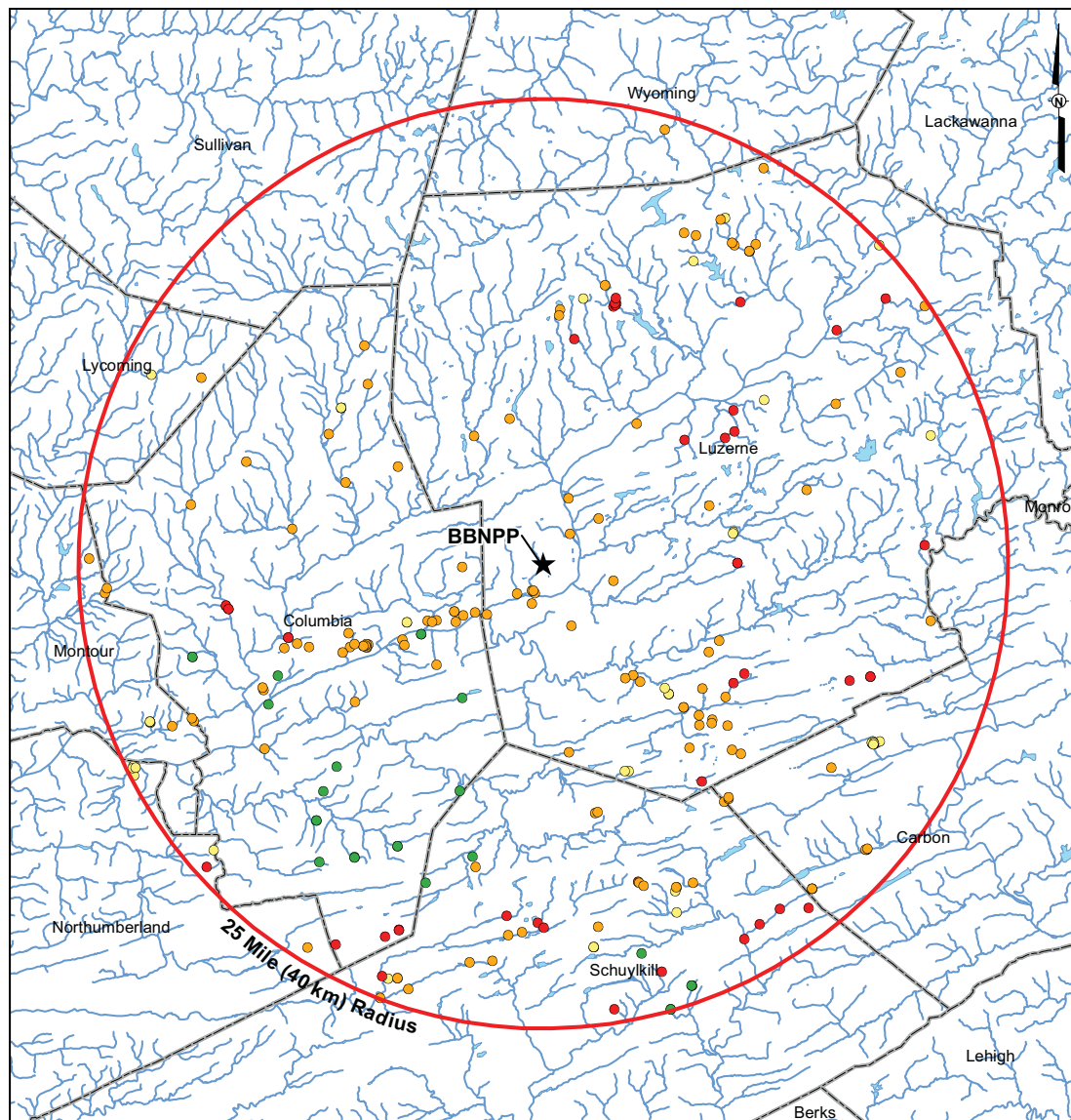
Figure 2.3-93— Groundwater Well Locations within a 5-Mile (8-km) Radius

Figure 2.3-94— Groundwater Withdrawal within a 25-Mile (40-km) Radius**LEGEND**

★ Center Point of Proposed Bell Bend NPP (BBNPP)

Groundwater Withdrawal (PADEP, 2010)

- Agricultural Use
- Industrial Use
- Commercial Use
- Mineral Use

□ NPP Reactor 25 Mile (40 km) Radius

□ County Boundary

— Streams and Rivers

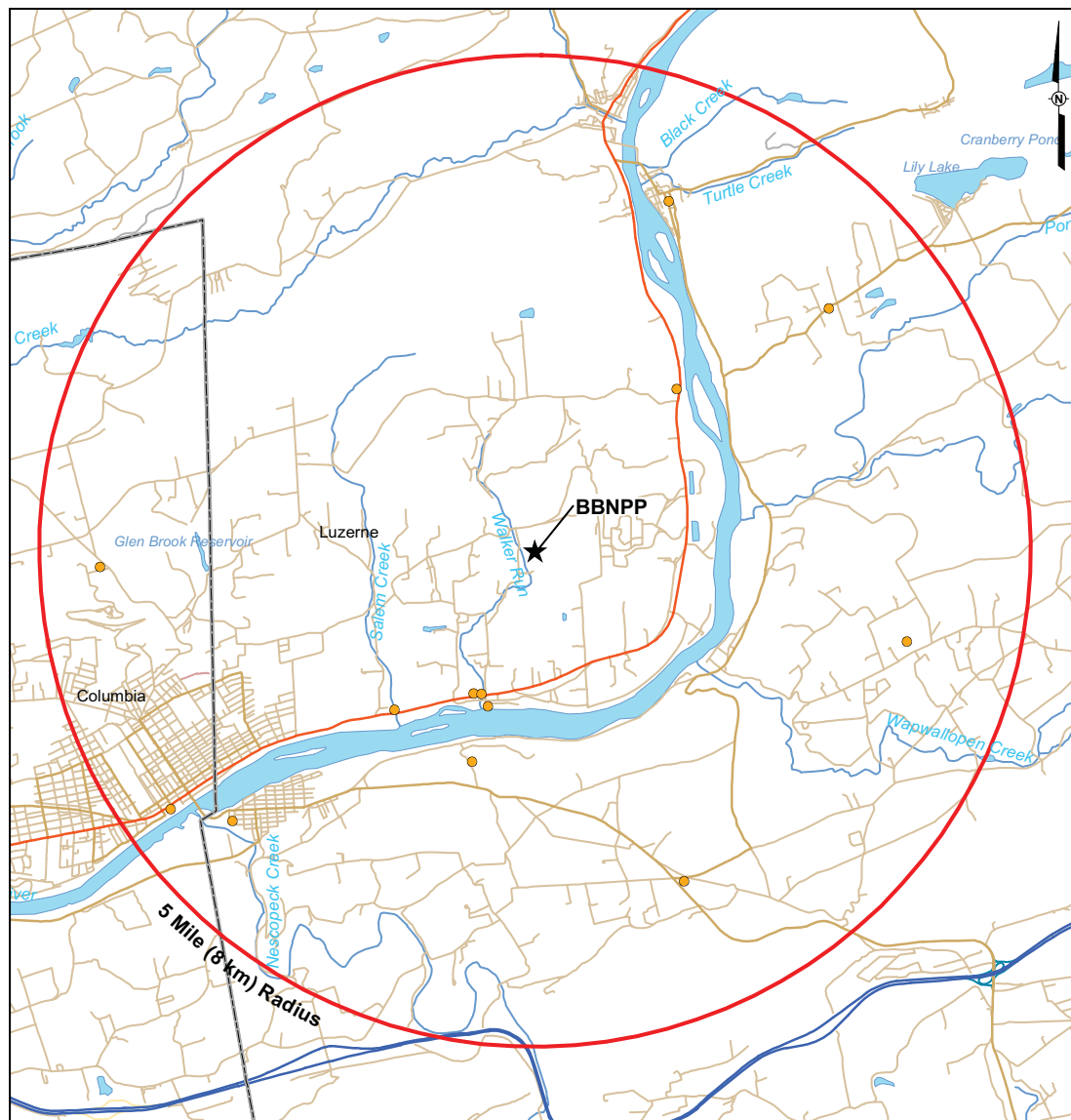
■ Waterbody

0 2.5 5 10 Miles
0 2.5 5 10 Kilometers

REFERENCES

- ESRI StreetMap Pro [CD-ROM], 2007, rivers, waterbodies, and county boundaries.
- PADEP, 2010, Water Resources (Groundwater Withdrawal) from PASDA, published by PADEP. <http://www.pasda.psu.edu/data/dep/> Data Accessed June 2010.

10-4310-GIS-A266

Figure 2.3-95— Groundwater Withdrawal within a 5-Mile (8-km) Radius**LEGEND**

★ Center Point of Proposed Bell Bend NPP (BBNPP)

Groundwater Withdrawal (PADEP, 2010)

- Agricultural Use ● Industrial Use
- Commercial Use ● Mineral Use

□ Unit 1 Reactor 5 Mile (8 km) Radius

□ County Boundary

— Interstate

— Secondary State and County Highway

— Local, Neighborhood, Rural, or City Street

— Streams and Rivers

— Waterbody

0 0.5 1 2 Miles
0 0.5 1 2 Kilometers

REFERENCES

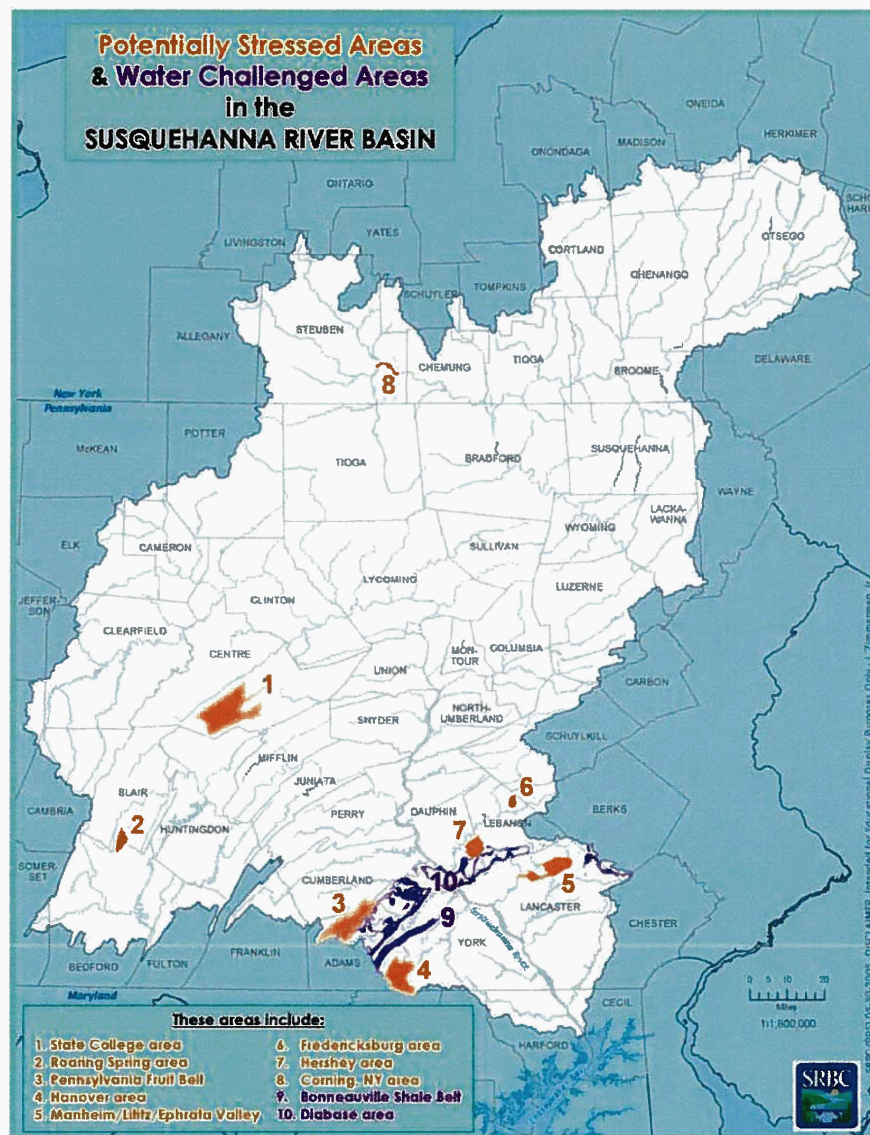
- ESRI StreetMap Pro [CD-ROM], 2007, rivers, waterbodies, and county boundaries.
- PADEP, 2010, Water Resources (Groundwater Withdrawal) from PASDA, published by PADEP. <http://www.pasda.psu.edu/data/dep/> Data Accessed June 2010.

10-4310-GIS-A267

Figure 2.3-96—Groundwater Production Wells at SSES

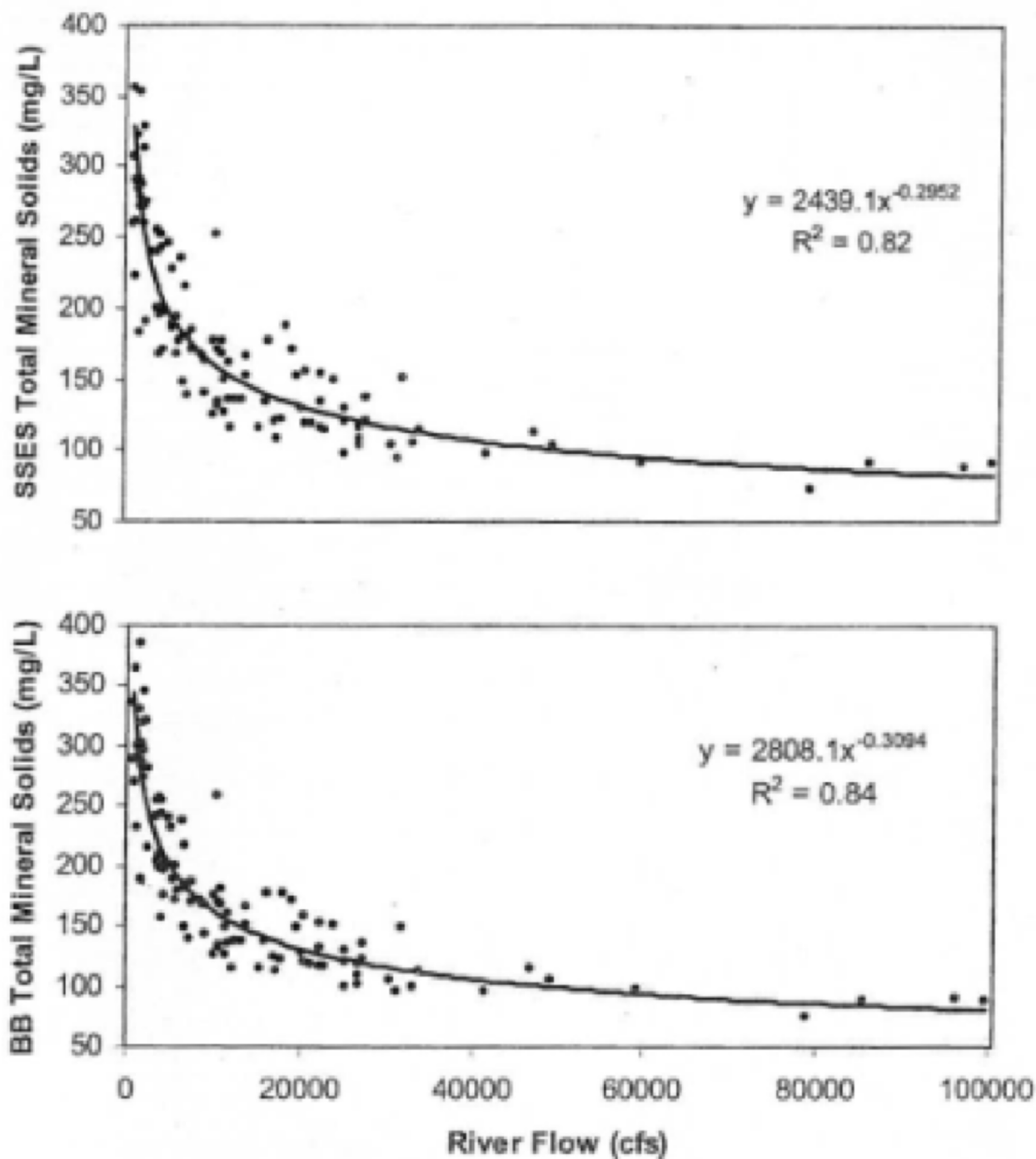


Figure 2.3-97— Potentially Stressed Areas and Water Challenged Areas in the Susquehanna River Basin



Reference: SRBC, 2005

Figure 2.3-98— Relationship Between Total Mineral Solids and Flow Rates in the Susquehanna River



Reference: Ecology III, 2007