Alternative I-1: Mount Airy Interconnection with Frederick County

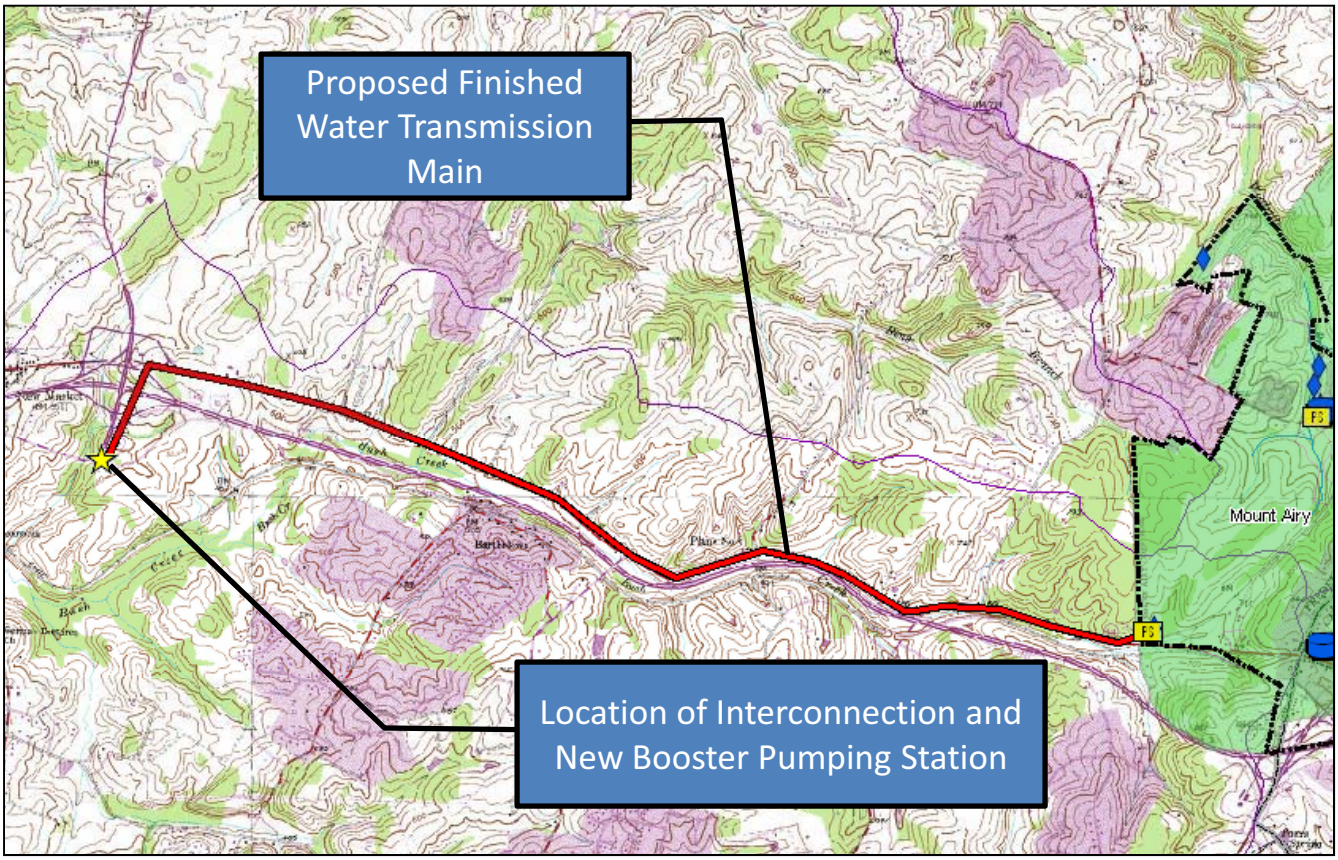
MALCOLM PIRNIE

Description of Alternative:

- Interconnection with the Frederick County finished water system
- Based on the Town of Mount Airy Water Supply Alternatives Study (Hazen and Sawyer, April 2006):
  - Requires booster pumping station at Monrovia and 7.6 miles (40,000 feet) of 16-inch finished water main to the Town of Mount Airy
  - Long-term annual demand deficit of 0.85mgd. Purchase agreement to supply 0.6 mgd (max agreement of 1.2 mgd).

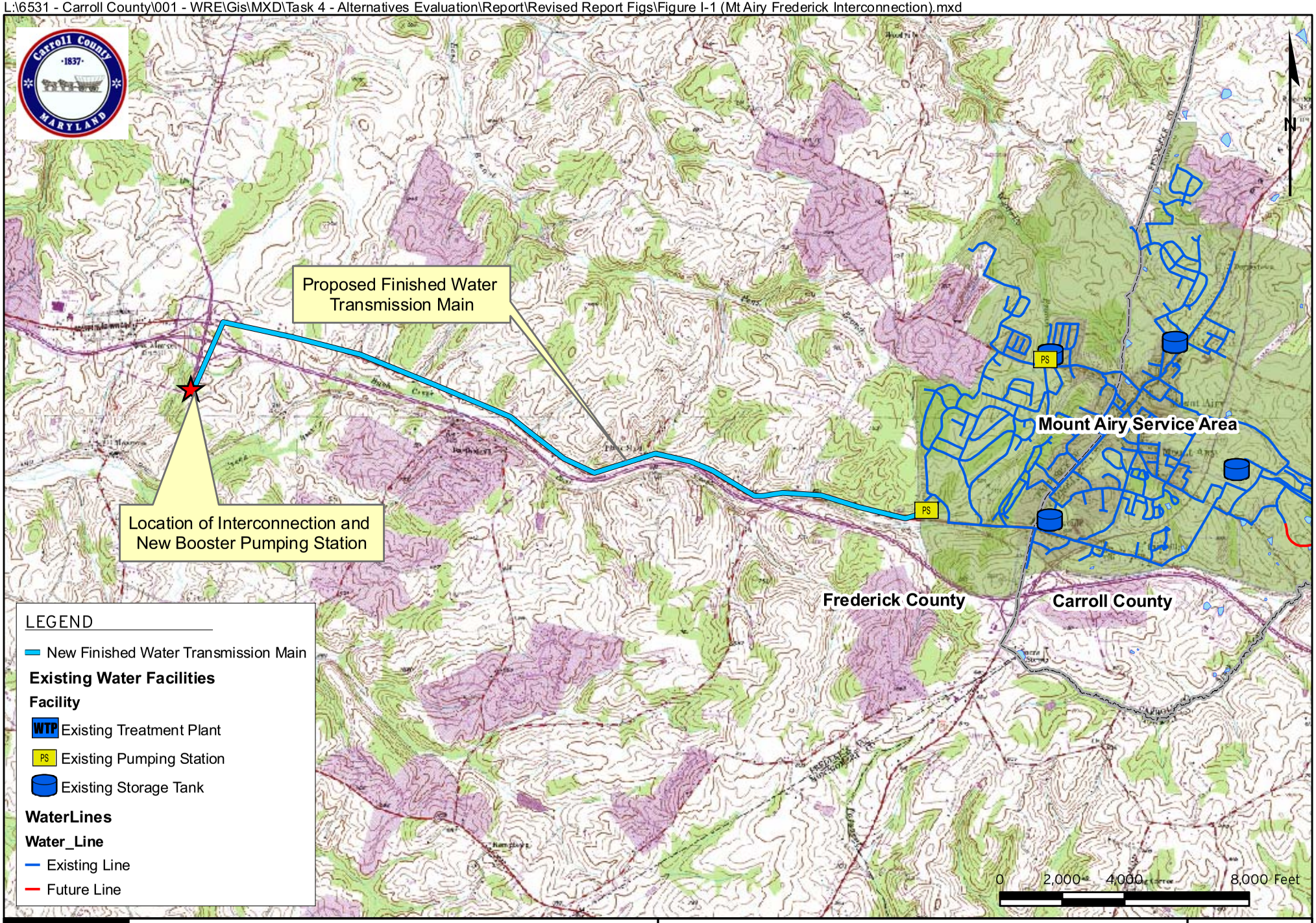
Key Implementation Steps:

- Requires Town of Mount Airy to reach agreement with Frederick County to purchase an initial 0.6 mgd of finished water with an option to purchase another 0.6 mgd in the future (1.2 mgd total).
- Design and permit treated water transmission main to connect to Mount Airy.
- Land and Easement Acquisition



August 2009

L:\6531 - Carroll County\001 - WRE\Gis\MXD\Task 4 - Alternatives Evaluation\Report\Revised Report Figs\Figure I-1 (Mt Airy Frederick Interconnection).mxd



MALCOLM PIRNIE

CARROLL COUNTY, MD
ALTERNATIVES EVALUATION

Alternative I-1:
Mount Airy Interconnection with Frederick County

Aug 2009

Figure I-1

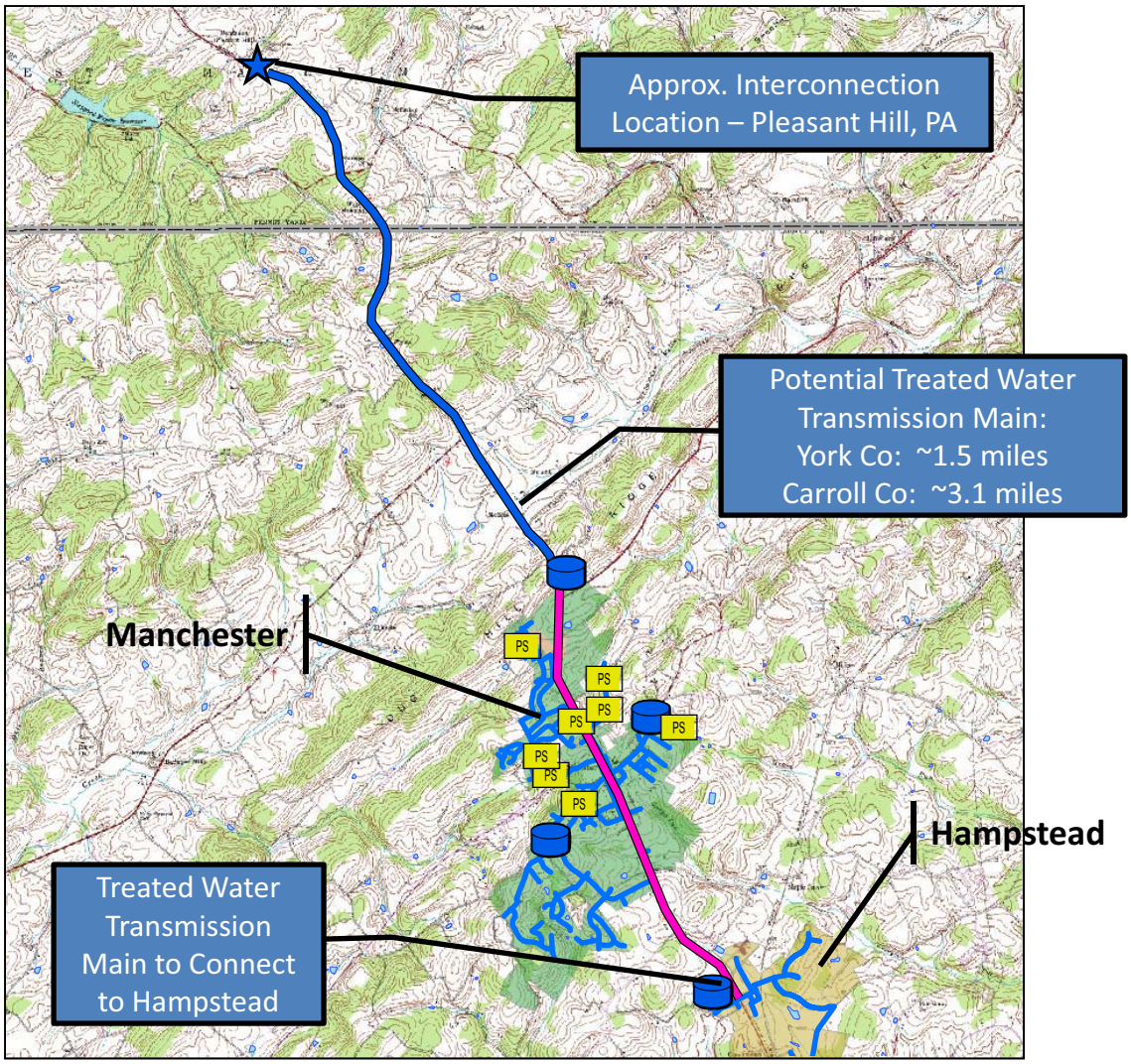
Alternative I-2: Interconnection with York Water Company (York, PA)

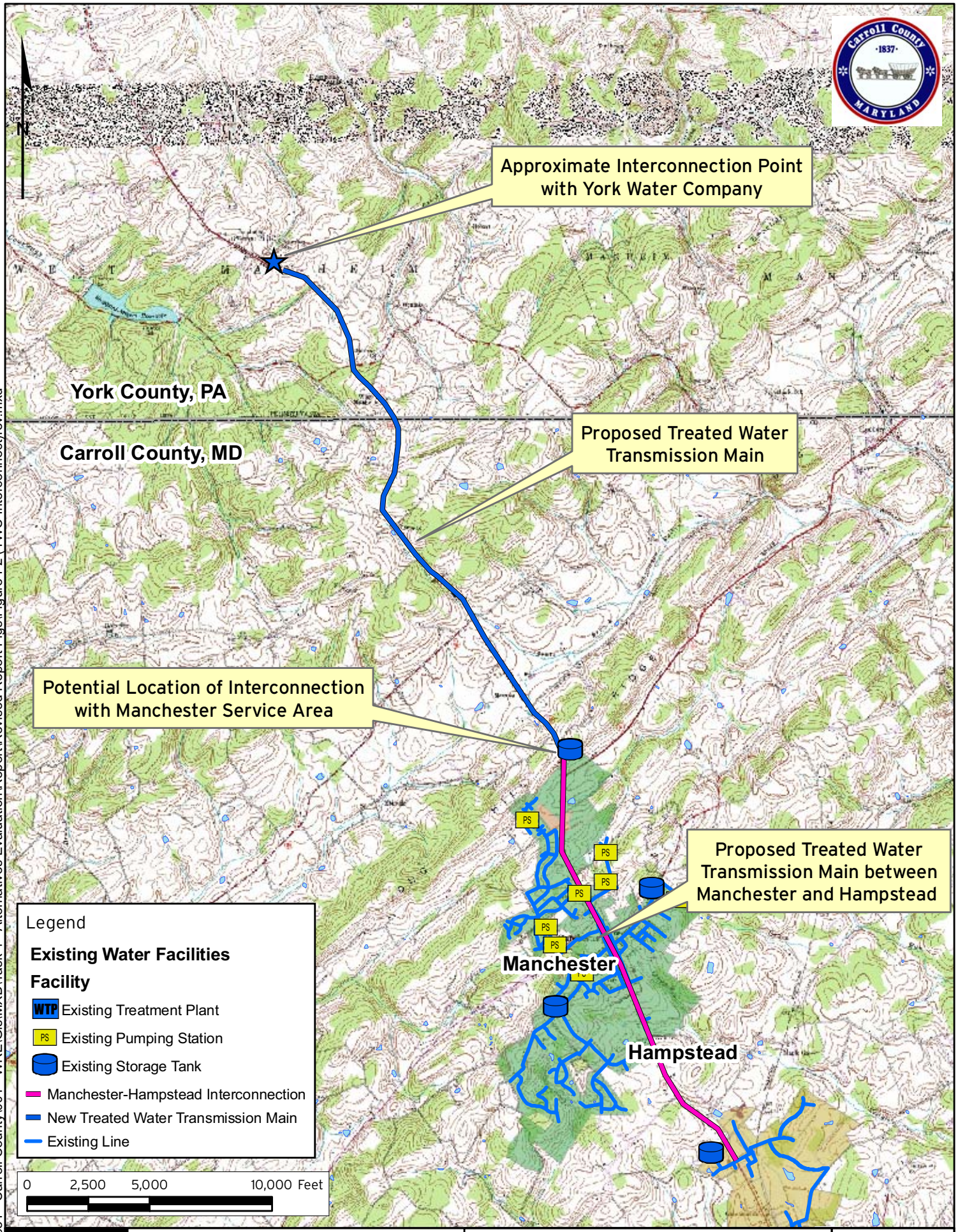
Description of Alternative:

- Interconnection with the York Water Company (YWC), which supplies water to York, PA
- Manchester and/or Hampstead to purchase treated water from YWC
- Approximately 4.6 miles of new 12-inch treated water transmission main to tie in with existing Manchester water service area. An additional 3.5 miles of 12-inch treated water transmission main to connect to Hampstead water service area.
- Minimum purchase of 150,000 gpd
- Approximately 0.90 mgd purchase required to satisfy Build-out Deficit of Hampstead and Manchester (assuming that Manchester groundwater capacities are less than currently appropriated).

Key Implementation Steps:

- Agreement between YWC and Hampstead/Manchester to purchase water.
- Design and permit treated water transmission main to connect to towns.
- Land and Easement Acquisition
- Based on previous discussions between Manchester and YWC, the following issues would need to be addressed:
  - Maintenance agreements for transmission main.
  - Cost sharing of transmission main project (YWC to pay for York Co portion and pump station, Manchester to pay for Carroll Co portion).
  - Purchase amounts – minimum purchase of 150,000 gpd required.
- Confirm that YWC will have adequate capacity in drought years. This may require coordination with the Susquehanna River Basin Commission.





L:\6531 - Carroll County\001 - WRE\Gis\MXD\Task 4 - Alternatives Evaluation\Report\Revised Report Figs\Figure I-2 (YWC Interconnect)rev.mxd

MALCOLM PIRNIE

CARROLL COUNTY, MD
ALTERNATIVES EVALUATION

Alternative I-2:
Interconnection with York Water Company

Sept 2009

Figure I-2

Alternative I-3: Freedom to Supply Mount Airy Using Existing Sources

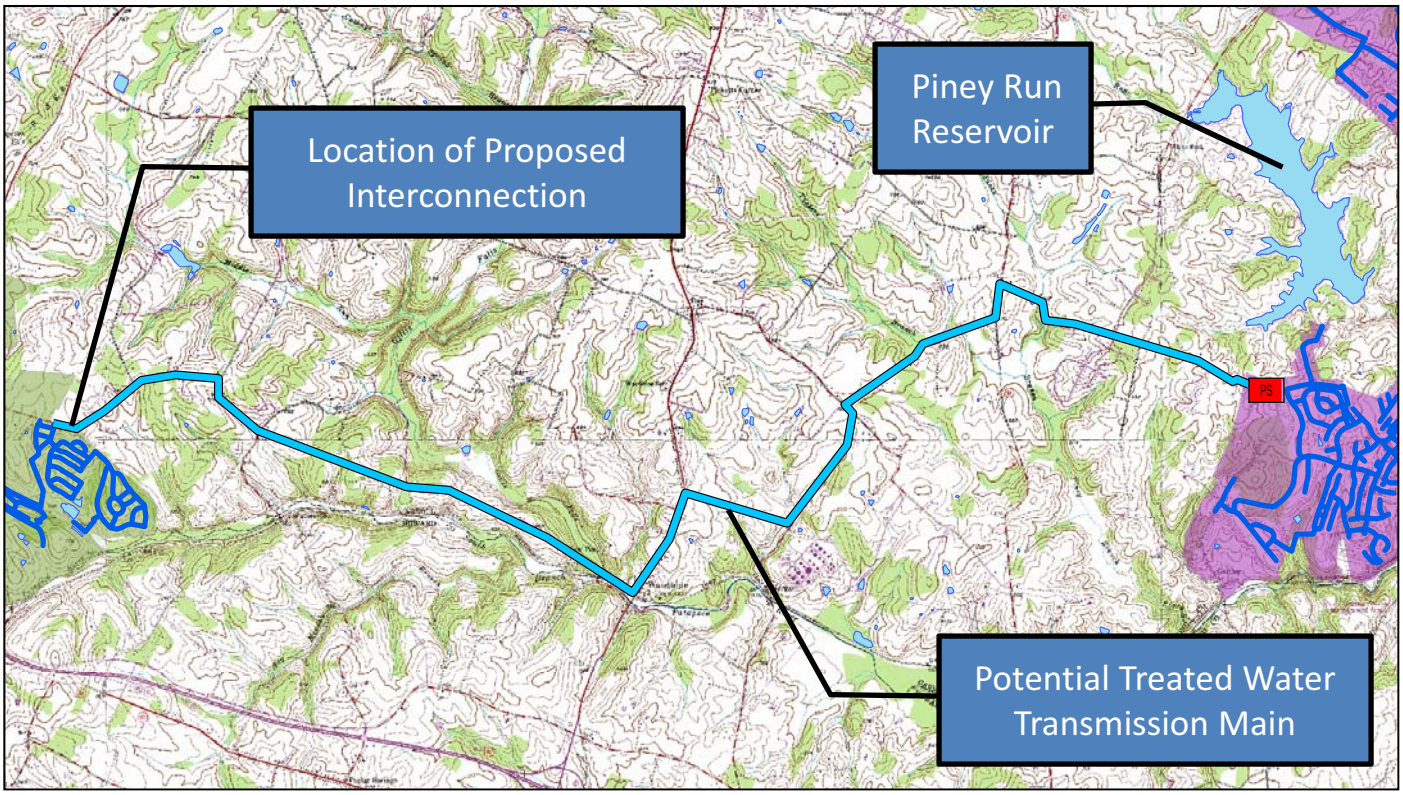
MALCOLM PIRNIE

Description of Alternative:

- Interconnection between Sykesville/Freedom water service area and Mount Airy to supply Mount Airy with 0.75 mgd using existing supply sources.
- Approximately 9.7 miles of new treated water transmission main to tie in with existing Mount Airy water service area.
- Requires one new pump station

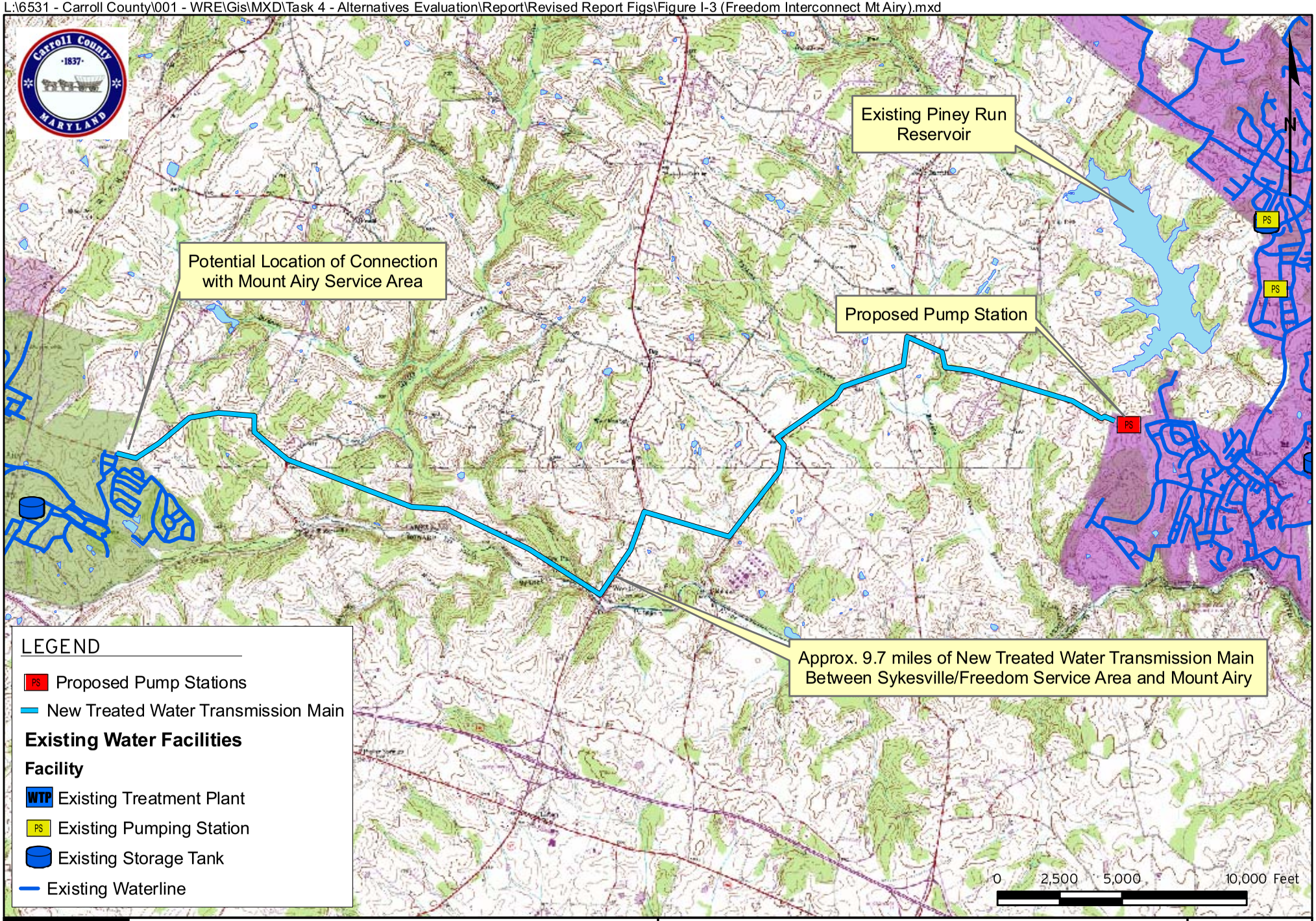
Key Implementation Steps:

- Agreement between Mount Airy and Sykesville/Freedom to purchase water.
- Design and permit treated water transmission main to connect service areas.
- Land and Easement Acquisition



August 2009

L:\6531 - Carroll County\001 - WRE\Gis\MXD\Task 4 - Alternatives Evaluation\Report\Revised Report Figs\Figure I-3 (Freedom Interconnect Mt Airy).mxd



MALCOLM PIRNIE

CARROLL COUNTY, MD
ALTERNATIVES EVALUATION

Alternative I-3:
Freedom to Supply Mount Airy Using Existing Sources

Aug 2009

Figure I-3