

Sewer and Septic Estimates Phase 6 Update

**Peter Claggett,
Research Geographer**

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Sewer vs. Septic

Basically, same methods as used in Phase 5.3.2

Assume all federal lands are on sewer.

Updated inputs:

- Sewer service areas collected from county and state agencies
- Weight of evidence approach to identify potential missed sewer service areas:
 - 2014 Census Places intersecting 1990 Block Groups served by sewer
 - 2010 Blocks that are highly developed with impervious surfaces, houses, or employment and fall within Urban Areas/Clusters
- Maximum % Growth on Sewer
(was based on Development from 1984 – 2006, now Development from 2001 – 2011)
- Ratio of single-detached to total housing units
(were based on ACS 2008-2012, now based on ACS 20011-2015)

Rationale for Assuming All Federal Facilities on Sewer

- Most large federal facilities either pay private or municipal sewer providers for service or hold their own NPDES permit. These loads will be accounted for in the NPDES records- they just won't be associated with Federal agencies unless an agency is the permit holder.
- Federal facilities located in rural areas may be on septic- but the CBPO estimates septic by place of residence, not place of work. The omission of loads from rural federal facilities on septic is probably very minor.

Mapping Sewer Service Areas using Weight-of-Evidence Approach

2013 Census Places,
Winchester, VA

All lands within Census Place will be considered served by sewer.

Soon to overlay Significant and Insignificant WWTP's for additional refinement.

Road Gaps in Sewer Service Areas

