



CAST Biosolids Data

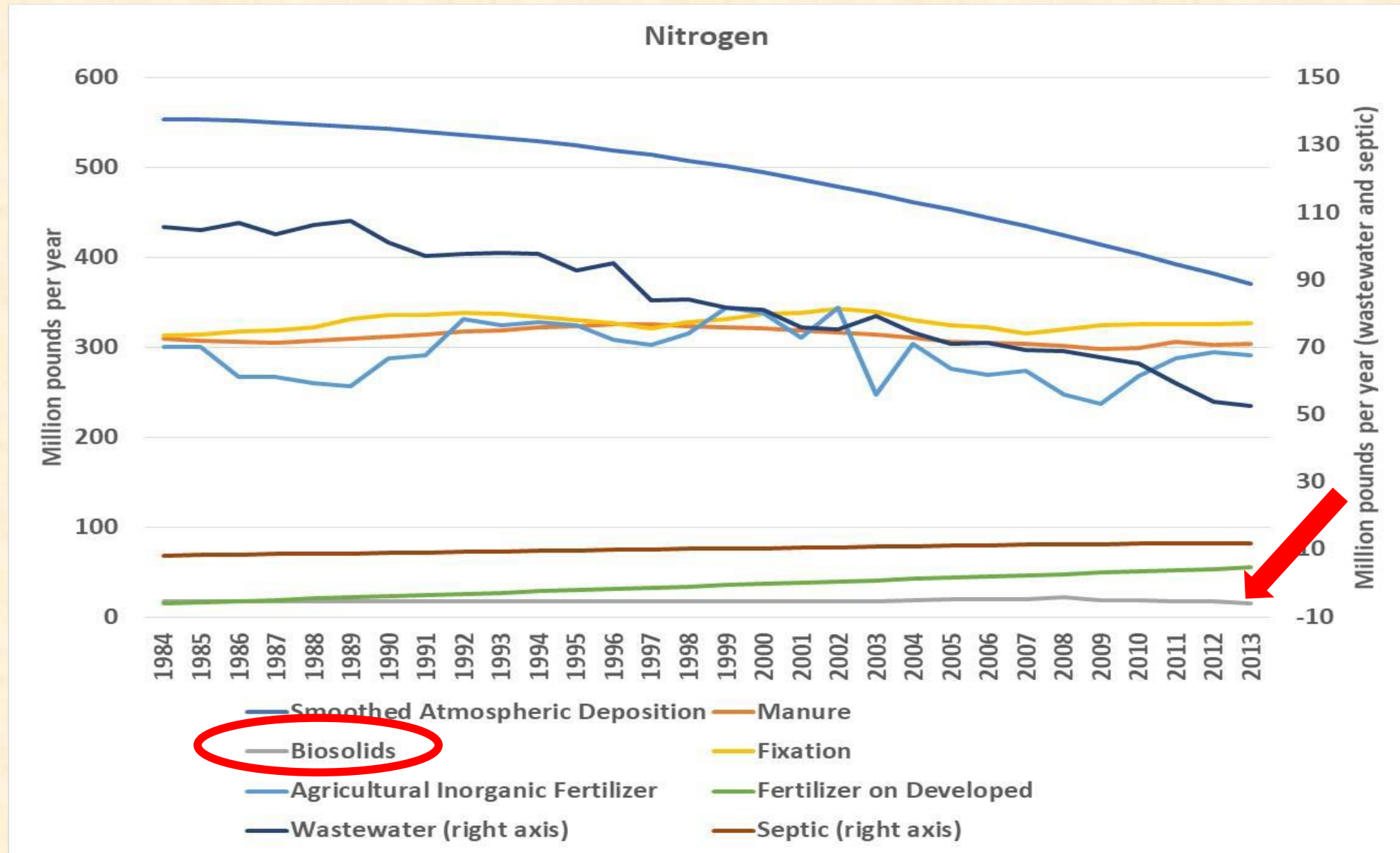
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CAST Biosolids Data

Nitrogen Inputs to the CB Watershed (1984–2013)





CAST Biosolids Data

Jurisdiction Reporting for Annual Progress Model Scenario

Progress Data (submitted annually)	DC	DE	MD	NY	PA	VA	WV
Animals in permitted/non-permitted feeding space, number or percent	NA	2013	2013	2013	2013	2013	2013
Construction, acres	2019	None	2017***	None	2015	2020*	2020
Harvested forest, acres	NA	None	2013	None	None	2020	2020
Biosolids	NA	2013	2013	2013	2013	2013	2019
Agricultural spray irrigation	NA	2013	2019	2013	2013	2013	2013
Urban spray irrigation	NA	1985	2019	None	None	1985	2019
Rapid infiltration basins (RIB)	NA	1995	2019	None	None	None	None
Large monitored septic systems - commercial	NA	2016	None	None	None	2016	1995
Large monitored septic systems - residential	NA	1995	None	None	None	2016	None
CSO pass thru	2018	NA	2014	1984	2014	1999*** *	2019



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Jurisdiction Reporting for Annual Progress Model Scenario

- Dates indicate when the jurisdiction last provided updated data
 - Since calibration of the model, biosolids data has only been received from WV for year 2019
- Previous year's data are used if jurisdictions do not submit updates
 - All progress and WIP scenarios from 2013 to 2025 use 2013 biosolids data for every jurisdiction, with one exception



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Jurisdiction Reporting for Annual Progress Model Scenario

- Where location of applications were missing
 - Proportioned mass of nutrients according to manure eligible crop need in the counties by year
- Where concentrations of nutrient species were missing
 - Used average species concentrations by state
 - If no state concentration data (PA), used Phase 5 WSM average species concentrations



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Jurisdiction Reporting for Annual Progress Model Scenario

- For years when nutrient mass data were missing
 - Held constant at mass in the nearest year
- Application timing
 - Followed manure timing \Rightarrow state information



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Jurisdiction Reporting for Annual Progress Model Scenario

- For Blue Plains
 - MD and VA had some data
- For PA
 - Used dry tons of bio-solids reported to ICIS then converted to nutrients using average concentrations from Phase 5 WSM



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Jurisdiction Reporting for Annual Progress Model Scenario

- Please provide data for any previous year, not just the immediate last progress year
 - CBP office will have the most recent data moving forward



CAST Biosolids Data CBRAP and CBIG Grant Guidance

U.S. EPA CBP 2020 Grant and Cooperative Agreement Grant
Guidance:

Wastewater Facility and BMP Implementation Reporting Frequency

Annual progress reporting of wastewater data and non-wastewater BMPs are an output of CBPO grants. Grant recipients are expected to provide CBPO with complete, quality-assured data in the proper formats.



CAST Biosolids Data CBRAP and CBIG Grant Guidance

U.S. EPA CBP 2020 Grant and Cooperative Agreement Grant Guidance:

Bio-Solids, Spray Irrigation, Large Monitored Onsite System & Rapid Infiltration Basin Data

As requested by the CBP partnership, the partnership's Phase 6 Watershed Model has been built to include and track nutrient loads from these new wastewater sources. CBPO expects jurisdictions to provide available bio-solids, spray irrigation, large monitored onsite system and rapid infiltration basin data where these nutrients are applied to the land.



CAST Biosolids Data

CBRAP and CBIG Grant Guidance

U.S. EPA CBP 2020 Grant and Cooperative Agreement Grant Guidance:

Bio-Solids, Spray Irrigation, Large Monitored Onsite System & Rapid Infiltration Basin Data

The data are to include, where available, the location (county, latitude and longitude) of application, mass of bio-solids or volume of irrigation/large onsite system/rapid infiltration basin, concentrations of nutrients, and the year of applications. The data specifications are detailed in the data template



CAST Biosolids Data CBRAP and CBIG Grant Guidance

U.S. EPA CBP 2020 Grant and Cooperative Agreement Grant Guidance:

Bio-Solids, Spray Irrigation, Large Monitored Onsite System & Rapid Infiltration Basin Data

It is expected that jurisdiction will annually submit updates to their bio-solids, spray irrigation, large onsite system and rapid infiltration data by December 1st, whenever new data is available. When new data is not available, a CBP protocol exists to use default numbers for these categories. The defaults are the previous year's data.



CAST Biosolids Data CBRAP and CBIG Grant Guidance

U.S. EPA CBP 2020 Grant and Cooperative Agreement Grant Guidance:

Bio-Solids, Spray Irrigation, Large Monitored Onsite System & Rapid Infiltration Basin Data

Data Table Template:

The data table templates for wastewater, CSO, bio-solid, spray irrigation, large onsite system and rapid infiltration data are included in the Excel file found at:

https://archive.chesapeakebay.net/VT/WWTP_CS0_Biosolid_Irrigation_LargeOnsite_RIB_Input_Templates2016.xlsx



CAST Biosolids Data Biosolids Template

Biosolid Data Template													
COUNTY	NPDES	MONTH	YEAR	Total acres receiving biosolids	Total acres of nutrient management lands receiving biosolids	Crop Type	Total dry pounds (or tons) applied to the land in each county (this would account for pounds transported into the watershed AND pounds transported county-to-county)	Moisture content of pounds applied to the land.	Nutrient concentrations of dry pounds applied to the land. (Mineralized N and P, Organic N and P, Phosphate, NO3 and ammonia)				
				Acres	Acres		lbs/month or lbs/yr	%	NH3_N (%)	NO3_N (%)	Org N_N (%)	PO4_P (%)	Org P_P (%)

Note: Shaded columns are required, others are optional for more accurately presenting the loads in the model.