

MARYLAND SEPTIC TANK PROJECTIONS

CBP WWTWG

September 10, 2013



Sustain~~able~~____Attain~~able~~

MARYLAND'S ASK

- Use MDP's projections to calibrate the Chesapeake Bay Land Change Model (CBLCM) septic projections used for annual progress runs and projected baselines.



ADVANTAGES OF MDP DATA

- Based on more recent and locally informed data of higher resolution.
- MDP projections use local data and MDP has agreements in place with local governments, this ensures timely and frequent updates.
- MDP has significant and long-term experience with data and projections used for land use planning.
- More geographically specific (Maryland has parcel data)



MDP PARCEL DATABASE

- Updated annually in September
- Single-Family Residential Parcels
- Inside PFA = sewer
- Outside PFA = septic



RECENT TRENDS

	Units	Acres	Lot/Acre	Outside PFA
2007	14,284	10,555	0.74	28.3%
2008	10,370	7,589	0.73	28.7%
2009	8,856	5,620	0.63	26%
2010	8,615	4,785	0.56	25.6%
2011	8,167	4,479	0.55	26.3%



% OUTSIDE PFA = % SEPTIC TANKS

- Statewide in Maryland, 23% of single-family households are on septic tanks
- 1980-89 22% outside PFAs
- 1990-99 24% outside PFAs
- 2000-09 28% outside PFAs

RECENT SEPTIC TANKS

	Units	Outside PFA	Septic Tanks
2009	8,856	26%	2,303
2010	8,615	25.6%	2,205
2011	8,167	26.3%	2,148

FUTURE SEPTIC TANKS (2012-2017)

- Trends in Building Permits Authorized for New Single-Family Homes
 - 4.31% annual rate of percent change (2009-2012)
 - 9.42% increase in 2012
- Assumption for annual increase in SF residential units 2013-2017
 - 5.31% increase in 2013
 - 6.31% in 2014, 7.31% in 2015, etc.



BUILDING PERMITS AUTHORIZED

	Actual	% Inc.
2009	8,133	--
2010	8,489	4.38%
2011	8,362	-1.52%
2012	9,232	9.42%



2012-2017 SF RESIDENTIAL UNITS

	% Increase	Estimated
2012	9.42%	8,937
2013	5.31%	9,411
2014	6.31%	10,005
2015	7.31%	10,737
2016	8.31%	11,629
2017	9.31%	12,712



COMPARISON TO 2010-2025 PROJECTIONS

- 2010-2025 Projections for SF Residential Units in Maryland = 215,655
- Using this method, 2010-2017 SF Residential Units = 80,213 or 37% of total 2010-2025 projections



2012-2017 SEPTIC TANKS

	All SF Units	% Septic	Estimated
2012	8,937	23%	2,055
2013	9,411	23%	2,165
2014	10,005	23%	2,301
2015	10,737	23%	2,469
2016	11,629	23%	2,675
2017	12,712	23%	2,924



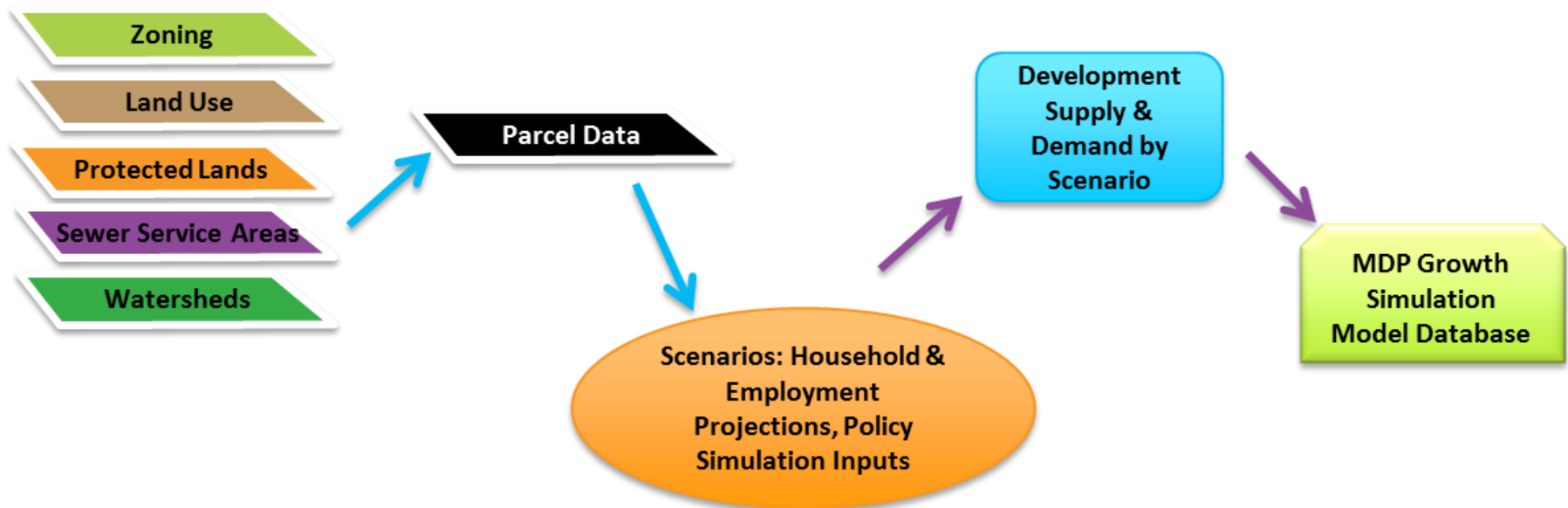
MDP GROWTH SIMULATION MODEL

- Estimates development capacity by land management scenario.
- Estimates land use change using population, household, and employment projections by scenario.
- Estimates future septic systems, guided by local water and sewer planning areas.



MDP GROWTH MODEL

MDP Growth Simulation Model



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QUESTIONS?

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