



Comparing LULC to P532 LULC

- **Prioritize comparison for land uses...**
 - With the greatest percent difference in acreage vs Phase 5.3.2 LULC
 - With the highest absolute loads
 - With the highest loads per acre

- **Land use issues**
 - Classification differences (low-density residential vs agriculture)
 - Modeling assumptions (average rural lot size, sub-canopy vegetation)
 - Allocation errors (from county-level to land-river segment level)
 - Important for counties straddling the Bay watershed or major sub-basin boundaries.



Comparing LULC to Regional LULC

MDP Land Use	CBLCD Land Cover									
	Water	Low-int Developed	High-int Developed	Barren	Forest	Scrub-shrub	Agriculture	Wetland	Total	User's Accuracy
Water	1,645,061	4,061	1,506	982	15,395	1,276	3,133	10,264	1,681,677	97.8%
Large lot subdivision	825	21,583	592	163	159,466	12,845	112,591	1,932	309,998	
Low-intensity Urban	3,304	400,832	75,061	2,241	297,784	35,390	228,738	3,716	1,047,066	38.3%
High-intensity Urban	866	93,888	142,077	2,556	21,065	2,832	20,666	456	284,404	50.0%
Barren	767	1,688	1,245	8,147	3,964	427	5,159	121	21,518	37.9%
Bare ground (MDP)	377	2,941	1,404	3,335	2,700	568	7,608	274	19,207	17.4%
Forest	11,317	51,481	5,523	3,426	2,085,458	71,201	158,005	22,158	2,408,569	86.6%
Agriculture	3,921	60,353	5,156	4,213	169,597	36,852	1,615,028	8,132	1,903,251	84.9%
Emergent Wetland	27,267	2,176	297	682	36,179	2,042	5,016	154,802	228,462	67.8%
Total	1,693,704	639,003	232,861	25,745	2,791,608	163,432	2,155,944	201,856	7,904,153	
Producer's Accuracy	97.1%	62.7%	61.0%	31.6%	74.7%	43.6%	74.9%	76.7%		

Mean TN Loads Per Acre (2010 P532 Progress Run)

	Atm Dep (atdep)	Forest (for)	Forest (hvf)	Extractive (nex)	Impervious (nid)	Pervious (npd)	Construction	Extractive (rex)	Impervious (rid)	Pervious (rpd)
DE	13.1	1.8	14.9	10.5	10.5	7.3	20.1	0.0	10.5	7.6
DC	12.4	2.7	23.2	0.0	11.7	6.1	29.7	0.0	15.4	7.5
MD	10.8	3.0	22.6	16.3	14.5	10.1	24.1	17.4	14.0	9.9
NY	8.5	2.8	27.1	17.3	13.8	13.0	34.2	17.2	12.6	11.7
PA	10.0	4.5	39.5	25.3	21.6	18.6	39.8	27.4	24.4	19.3
VA	9.1	2.9	27.0	17.2	13.2	9.8	34.7	14.6	12.8	9.0
WV	8.0	5.5	32.2	30.4	23.8	21.4	58.9	32.1	21.6	16.4

Mean TP Loads Per Acre (2010 P532 Progress Run)

	Atm Dep (atdep)	Forest (for)	Forest (hvf)	Extractive (nex)	Impervious (nid)	Pervious (npd)	Construction	Extractive (rex)	Impervious (rid)	Pervious (rpd)
DE	0.6	0.0	0.3	1.7	1.0	0.3	3.4	0.0	0.8	0.2
DC	0.6	0.1	0.5	0.0	1.4	0.2	5.0	0.0	1.6	0.3
MD	0.6	0.1	0.5	2.9	1.5	0.4	3.7	3.2	1.5	0.4
NY	0.6	0.1	0.8	4.0	2.2	0.8	7.9	4.1	2.1	0.8
PA	0.6	0.1	0.8	3.7	1.9	0.7	4.5	4.0	1.9	0.6
VA	0.6	0.1	0.9	4.3	2.3	0.7	8.7	3.1	2.0	0.6
WV	0.6	0.1	0.8	5.5	3.0	1.1	9.8	5.4	2.4	0.7

Mean TSS Loads Per Acre (2010 P532 Progress Run)

	Atm Dep (atdep)	Forest (for)	Forest (hvf)	Extractive (nex)	Impervious (nid)	Pervious (npd)	Construction	Extractive (rex)	Impervious (rid)	Pervious (rpd)
DE	0.0	9.7	169.9	656.8	358.9	50.9	1,974.0	0.0	209.3	22.5
DC	0.0	126.9	1,329.1	0.0	1,119.8	200.2	11,179.0	0.0	1,109.3	225.2
MD	0.0	60.3	546.3	2,168.2	891.6	135.6	3,478.0	1,953.2	853.7	132.4
NY	0.0	70.1	770.7	3,927.1	1,661.7	220.7	8,135.9	4,806.4	2,282.1	314.3
PA	0.0	99.5	934.7	3,588.8	1,444.6	208.2	5,499.7	3,894.6	1,459.5	201.2
VA	0.0	73.1	742.7	3,127.4	1,324.0	193.9	6,556.3	2,472.3	1,091.0	163.6
WV	0.0	86.8	757.5	4,400.0	1,999.5	269.3	7,845.7	3,416.9	1,747.6	252.4

Mean TN Loads Per Acre (2010 P532 Progress Run)

	Animals (afo)	Alfalfa (alf)	Animals (cfo)	High Till (hom)	High Till (hwm)	Hay (hyo)	Hay (hyw)	Low Till (lwm)	Alfalfa (nal)	High Till (nhi)	High Till (nho)	Hay (nhy)	Low Till (nlo)	Pasture (npa)
DE	2,539.1	0.0	2,313.6	0.0	0.0	2.3	0.0	0.0	3.6	16.6	24.6	2.7	15.0	0.0
DC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD	1,426.2	10.9	4,287.0	25.7	22.3	3.2	5.0	21.1	7.4	26.0	32.8	5.0	27.4	0.0
NY	1,043.7	6.6	8,291.0	35.9	48.7	3.2	6.4	43.1	6.7	45.6	35.9	5.2	39.6	0.0
PA	477.0	10.2	1,589.5	44.7	49.4	4.8	12.6	49.5	10.1	47.6	46.7	10.9	45.6	0.0
VA	626.9	7.9	5,300.5	28.8	30.6	3.6	10.8	29.0	9.7	33.6	30.1	9.5	33.0	9.3
WV	563.3	13.3	2,590.3	55.0	71.5	6.1	16.5	65.4	10.4	43.8	31.6	11.6	40.9	0.0

Mean TP Loads Per Acre (2010 P532 Progress Run)

	Animals (afo)	Alfalfa (alf)	Animals (cfo)	High Till (hom)	High Till (hwm)	Hay (hyo)	Hay (hyw)	Low Till (lwm)	Alfalfa (nal)	High Till (nhi)	High Till (nho)	Hay (nhy)	Low Till (nlo)	Pasture (npa)
DE	392.4	0.0	370.8	0.0	0.0	0.2	0.0	0.0	0.2	1.5	1.0	0.6	1.4	0.0
DC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD	221.7	4.3	664.7	1.4	0.9	0.3	1.0	2.2	0.7	1.1	1.8	0.5	1.4	0.0
NY	185.1	0.7	870.2	2.4	3.3	0.5	1.2	3.1	0.5	4.9	2.4	1.9	4.6	0.0
PA	70.1	0.7	206.7	1.9	1.8	0.4	1.2	1.6	0.6	1.3	1.9	1.8	1.4	0.0
VA	107.0	1.0	1,092.1	2.4	2.5	0.5	1.7	2.5	0.8	6.7	2.4	24.1	6.5	0.8
WV	94.1	1.0	421.4	3.5	3.6	0.6	1.4	3.5	0.6	1.4	1.9	2.8	1.5	0.0

Mean TSS Loads Per Acre (2010 P532 Progress Run)

	Animals (afo)	Alfalfa (alf)	Animals (cfo)	High Till (hom)	High Till (hwm)	Hay (hyo)	Hay (hyw)	Low Till (lwm)	Alfalfa (nal)	High Till (nhi)	High Till (nho)	Hay (nhy)	Low Till (nlo)	Pasture (npa)
DE	233.8	0.0	233.8	0.0	0.0	56.2	0.0	0.0	56.0	202.7	219.1	56.6	119.7	0.0
DC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD	1,285.9	296.5	1,138.4	865.2	667.2	371.2	310.8	557.0	359.8	946.7	1,253.6	374.5	762.1	0.0
NY	1,169.3	233.6	1,294.0	927.7	954.6	243.2	237.3	534.1	235.4	963.4	931.2	243.3	533.2	0.0
PA	2,710.7	477.5	2,886.2	1,684.6	1,653.0	439.8	473.6	953.2	458.2	1,432.5	1,413.4	455.1	1,066.4	0.0
VA	4,510.9	367.8	4,515.5	1,289.4	1,172.8	383.0	369.0	745.7	376.9	1,192.0	1,439.4	391.5	832.8	509.1
WV	7,021.5	348.7	4,458.2	1,368.7	1,338.2	346.4	350.9	814.5	228.7	516.1	548.7	231.8	338.2	0.0