



Land Use Land Cover Project Update

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Accuracy Assessment Land Cover Change 2022 edition

Sampling methodology, procedure, and schedule

Methodology

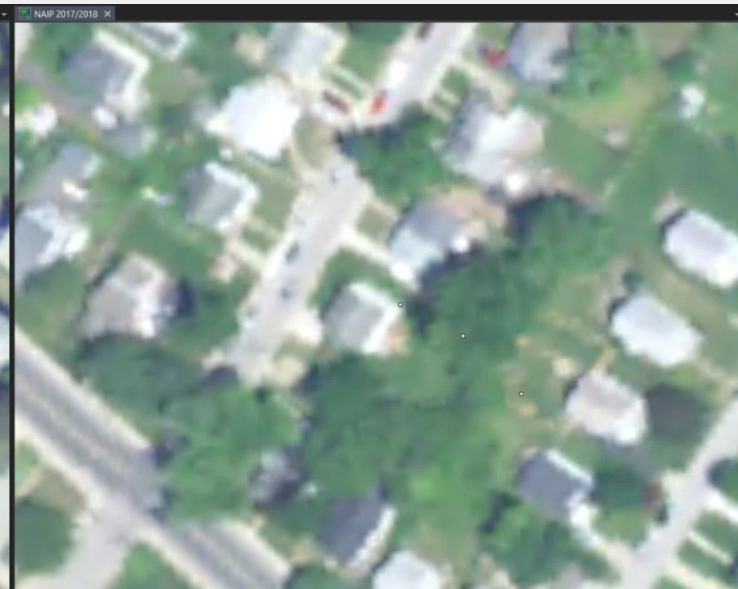
- Stratified Random Sampling
 - Land Cover Change classification
 - State
 - Proximity to mapped change
- Number of samples
 - 10,000 samples for the 2016 edition Land Cover
 - 28,824 samples for the 2022 edition Land Cover Change
 - Calculated based on strata, expected accuracy, and percent of cumulative area

Stehman, S. V., & Foody, G. M. (2019). Key issues in rigorous accuracy assessment of land cover products. *Remote Sensing of Environment*, 231, 111199. <https://doi.org/10.1016/j.rse.2019.05.018>

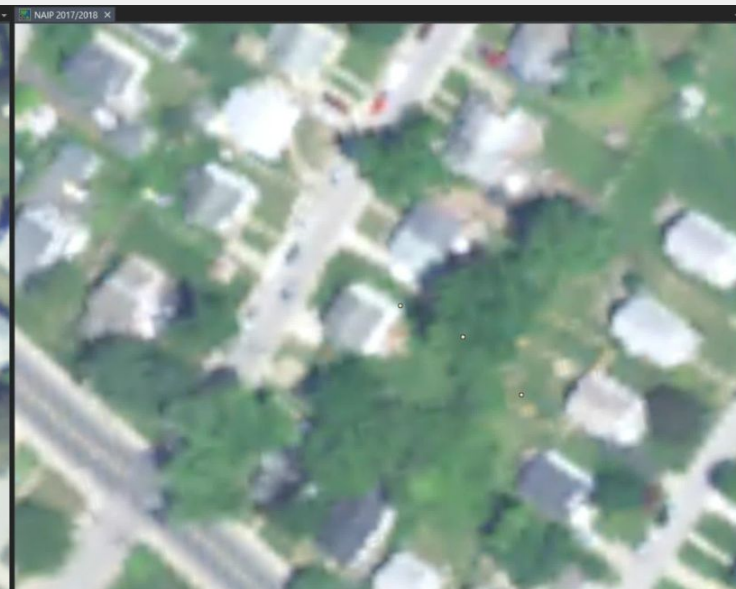
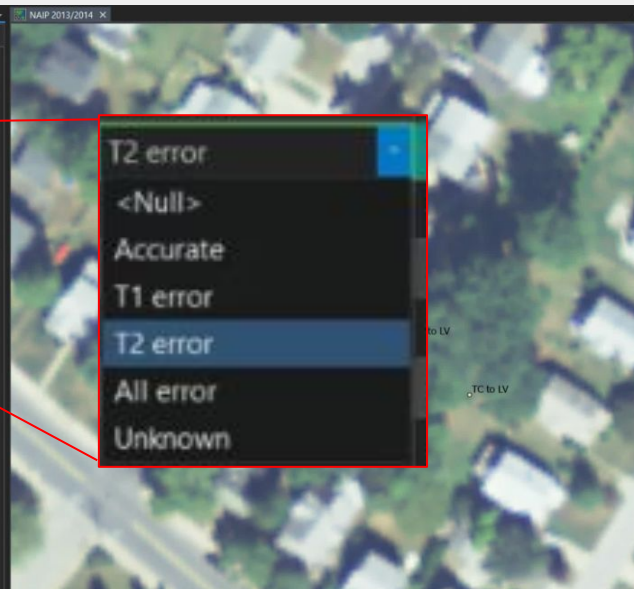
Methodology

- Who developed the methodology?
 - USGS - Peter Claggett, Steve Stehman
 - CIC - Jacob Czawlytko, Kumar Mainali
 - UVM - Jarlath O'Neil-Dunne
- Who will perform the accuracy assessment?
 - GIS expertise
 - Did not contribute to Objective 1 data
 - Conservation Innovation Center Analysts
- How will the accuracy assessment be performed?
 - Double linked map panes in ArcGIS Pro
 - NAIP imagery for T1 and T2
 - No visible LC Change data
 - Sample points with drop down menu responses

Field:	Shape *	CID	AA_1	T1_LC	T2_LC
1	Point	527	Unknown	Tree Canopy	Herbaceous
2	Point	535	T2 error	Tree Canopy	Tree Canopy
3	Point	1190	Unknown	<Null>	<Null>
4	Point	1345	T2 error	Tree Canopy	Tree Canopy
5	Point	1373	<Null>	Tree Canopy	Herbaceous
6	Point	1803	Accurate	<Null>	Tree Canopy
7	Point	1823	T2 error	TC over Other Impervious	Other Impervious
8	Point	2126	All error	<Null>	<Null>
9	Point	2127	Unknown	<Null>	<Null>
10	Point	2338	<Null>	<Null>	<Null>
11	Point	2939	<Null>	<Null>	<Null>
12	Point	3105	<Null>	<Null>	<Null>
13	Point	3129	<Null>	<Null>	<Null>
14	Point	3151	<Null>	<Null>	<Null>
15	Point	7769	<Null>	<Null>	<Null>
16	Point	8353	<Null>	<Null>	<Null>
17	Point	8836	<Null>	<Null>	<Null>
18	Point	9691	<Null>	<Null>	<Null>
19	Point	10464	<Null>	<Null>	<Null>
20	Point	11661	<Null>	<Null>	<Null>
21	Point	14943	<Null>	<Null>	<Null>
22	Point	15159	<Null>	<Null>	<Null>
23	Point	16241	<Null>	<Null>	<Null>
24	Point	16481	<Null>	<Null>	<Null>
25	Point	16856	<Null>	<Null>	<Null>
26	Point	17308	<Null>	<Null>	<Null>
27	Point	17713	<Null>	<Null>	<Null>
28	Point	19792	<Null>	<Null>	<Null>
29	Point	20283	<Null>	<Null>	<Null>



KML View							
Field:	Shape	CID	AA.1	T1_LC	T2_LC		
1	Point	527	Unknown	Tree Canopy	Herbaceous		
2	Point	535	T2 error	Tree Canopy	Tree Canopy		
3	Point	1190	Unknown	<Null>	<Null>		
4	Point	1345	T2 error	Tree Canopy	Tree Canopy		
5	Point	1373	<Null>	Tree Canopy	Herbaceous		
6	Point	1803	Accurate T1 error	<Null>	Tree Canopy		
7	Point	1823	T2 error	TC over Other Imperv	Other Impervious		
8	Point	2126	All error	<Null>	<Null>		
9	Point	2127	Unknown	<Null>	<Null>		
10	Point	2338	<Null>	<Null>	<Null>		
11	Point	2939	<Null>	<Null>	<Null>		
12	Point	3102	<Null>	<Null>	<Null>		
13	Point	3129	<Null>	<Null>	<Null>		
14	Point	3151	<Null>	<Null>	<Null>		
15	Point	7769	<Null>	<Null>	<Null>		
16	Point	8353	<Null>	<Null>	<Null>		
17	Point	8836	<Null>	<Null>	<Null>		
18	Point	9691	<Null>	<Null>	<Null>		
19	Point	10464	<Null>	<Null>	<Null>		
20	Point	11661	<Null>	<Null>	<Null>		
21	Point	14943	<Null>	<Null>	<Null>		
22	Point	15159	<Null>	<Null>	<Null>		
23	Point	16241	<Null>	<Null>	<Null>		
24	Point	16481	<Null>	<Null>	<Null>		
25	Point	16856	<Null>	<Null>	<Null>		
26	Point	17308	<Null>	<Null>	<Null>		
27	Point	17713	<Null>	<Null>	<Null>		
28	Point	17992	<Null>	<Null>	<Null>		



Field:

Selection:

OID	Shape	CID	AA_1	T1_LC	T2_LC
1	Point	527	Unknown	Tree Canopy	Herbaceous
2	Point	535	T2 error	Tree Canopy	Tree Canopy
3	Point	1190	Unknown	<Null>	<Null>
4	Point	1345	T2 error	Tree Canopy	Tree Canopy
5	Point	1373	Accurate	Tree Canopy	<Null>
6	Point	1803	T2 error	<Null>	Water
7	Point	1823	All error	TC over Other Imperv	Wetlands
8	Point	2126	<Null>	<Null>	Tree Canopy
9	Point	2127	<Null>	<Null>	Scrub/Shrub
10	Point	2338	<Null>	<Null>	Herbaceous
11	Point	2939	<Null>	<Null>	Structures
12	Point	3105	<Null>	<Null>	Other Impervious
13	Point	3129	<Null>	<Null>	Roads
14	Point	3151	<Null>	<Null>	TC over Structures
15	Point	7769	<Null>	<Null>	TC over Other Impervious
16	Point	8353	<Null>	<Null>	TC over Roads
17	Point	8836	<Null>	<Null>	Barren
18	Point	9691	<Null>	<Null>	<Null>
19	Point	10464	<Null>	<Null>	<Null>
20	Point	11661	<Null>	<Null>	<Null>
21	Point	14943	<Null>	<Null>	<Null>
22	Point	15159	<Null>	<Null>	<Null>
23	Point	16241	<Null>	<Null>	<Null>
24	Point	16481	<Null>	<Null>	<Null>
25	Point	16856	<Null>	<Null>	<Null>
26	Point	17308	<Null>	<Null>	<Null>
27	Point	17713	<Null>	<Null>	<Null>
28	Point	19792	<Null>	<Null>	<Null>

NAP 2013/2014

NAP 2017/2018

<Null>

Water

Wetlands

Tree Canopy

Scrub/Shrub

Herbaceous

Structures

Other Impervious

Roads

TC over Structures

TC over Other Impervious

TC over Roads

Barren

TC to LV

TC to LV

Land Cover Change Accuracy Assessment Schedule

- Develop code to generate sample points
 - Current - November 1, 2022
- Perform accuracy assessment
 - November 1, 2022 - December 16, 2022
- Draft white paper
 - January 2023

Questions?

jczawlytko@chesapeakeconservancy.org

2017/2018 Data Review

Land Use Land Cover 2022 edition

Schedule and application preview

2017/2018 Land Use Land Cover Data Review

Purpose

- Allow stakeholder feedback
- Identify errors in land use classifications
 - not land cover
- Use results to inform model revisions

2017/2018 Land Use Land Cover Data Review Schedule

- Develop review application and instructions
 - Currently - September 30, 2022
- Application release
 - October 3, 2022
- Review period
 - October 3, 2022 - October 31, 2022

Questions?

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