



Chesapeake Bay Program
Science. Restoration. Partnership.

August 25, 2025

Draft Phase 7 Land-River Segments (LR-Segs)

WQGIT Meeting

Alex Gunnerson, Arlluk/CBPO Contractor

Agenda

1 Brief Recap of June and July WQGIT Discussions

2 Revisions Based on WQGIT Feedback

Background

Brief Recap of June and July WQGIT
Discussions

Takeaways From Previous WQGIT Meetings

- Eliminate slivers and small polygons along ridgelines and adjacent to tidal waters
- Desire to maintain HUC 12 boundaries
- Willing to tweak segmentshed boundaries slightly when presented with better data (shoreline, updated watershed boundary) and to delete slivers

NOTE

For today's discussion, we will be looking at the number of LR-segs **within the Chesapeake Bay watershed only.**

Revisions Based on WQGIT Feedback

Revisions – Eliminated Small Polygons

- Eliminated small polygons along ridgelines and adjacent to tidal waters.
 - This reduced the number of Land-River Segments by nine.
 - Many more Land-River Segments that were multi-part polygons were modified to remove small polygon slivers.

□ P7LRSegs OptionB



Before

Sliver Land-River
Segment on ridgeline in
Option B using new
decision rules

Location: Southern Sullivan
County, PA

0 0.28 0.55 1.1 Miles

□ P7LRSegs_Revised



After

Sliver Land-River
Segment on ridgeline
removed using new
decision rules in the
Revised Version

Location: Southern Sullivan
County, PA

0 0.28 0.55 1.1 Miles



Before

Multi-part polygons in
Option B

Location: Tidal Potomac,
Northumberland County, VA



After

Multi-part polygons
removed in the revised
version

Location: Tidal Potomac,
Northumberland County, VA

□ P7LRSegs OptionB



Before

Multi-part polygons in
Option B

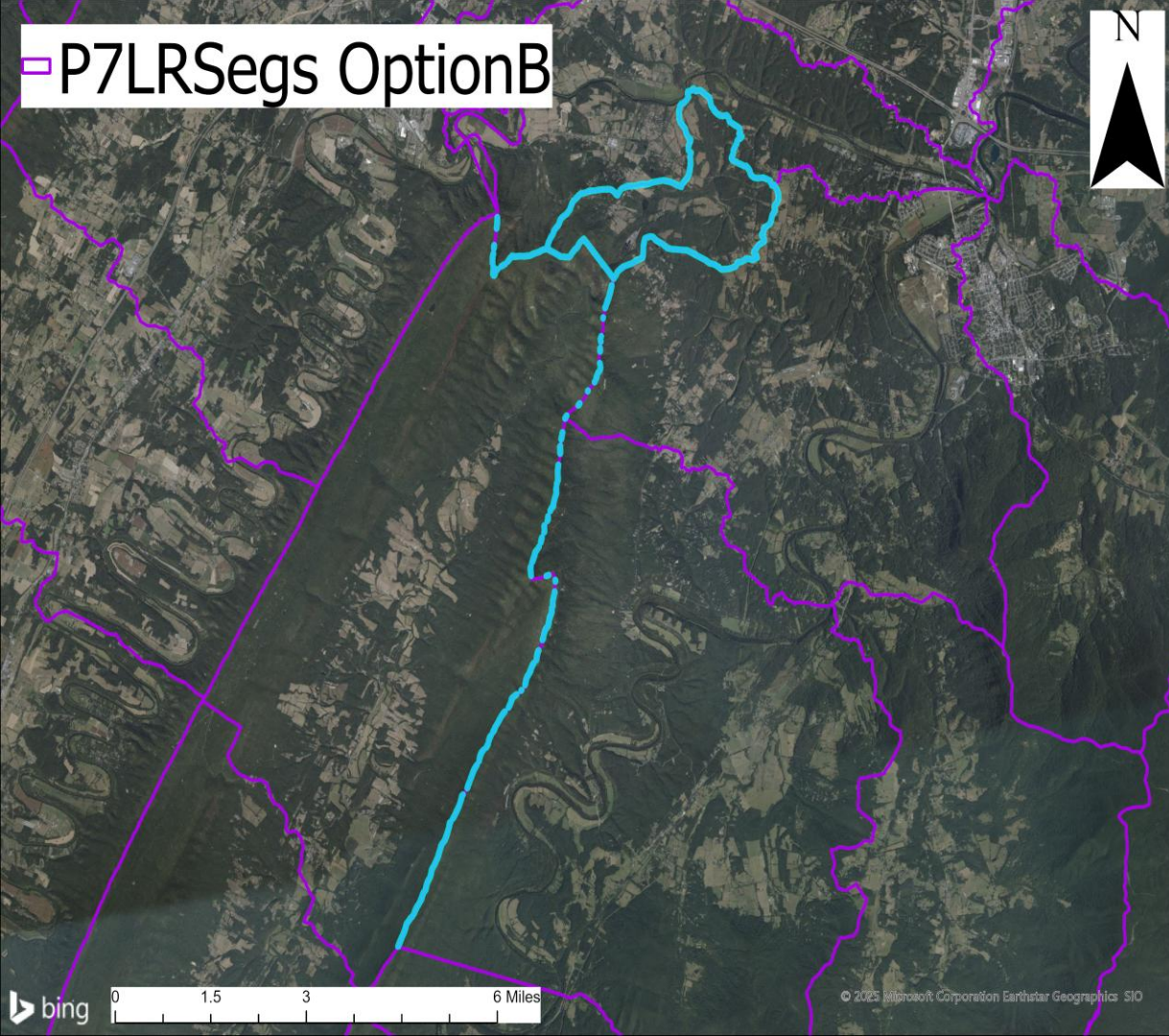
Location: Tidal James,
Henrico & Chesterfield
Counties, VA



After

Multi-part polygons removed in the revised version

Location: Tidal James, Henrico & Chesterfield Counties, VA



P7LRSegs OptionB



Before

Multi-part polygons in
Option B

Location: Ridgeline in the
Potomac Watershed, Warren
and Shenandoah Counties, VA

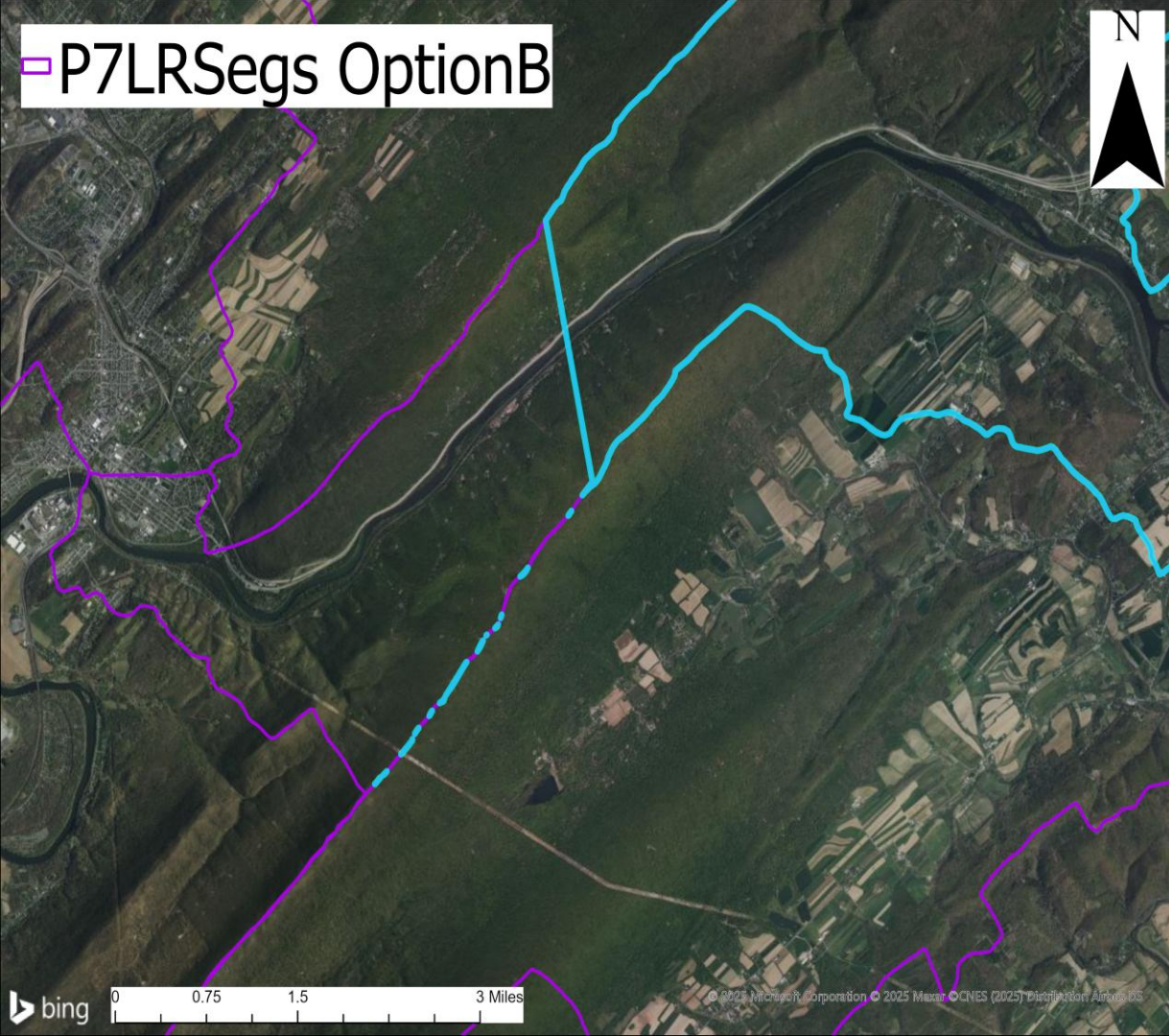
P7LRSegs Revised OptionB



After

Multi-part polygons
removed in the revised
version

Location: Ridgeline in the
Potomac Watershed, Warren
and Shenandoah Counties, VA



□ P7LRSegs OptionB



Before

Multi-part polygons in
Option B

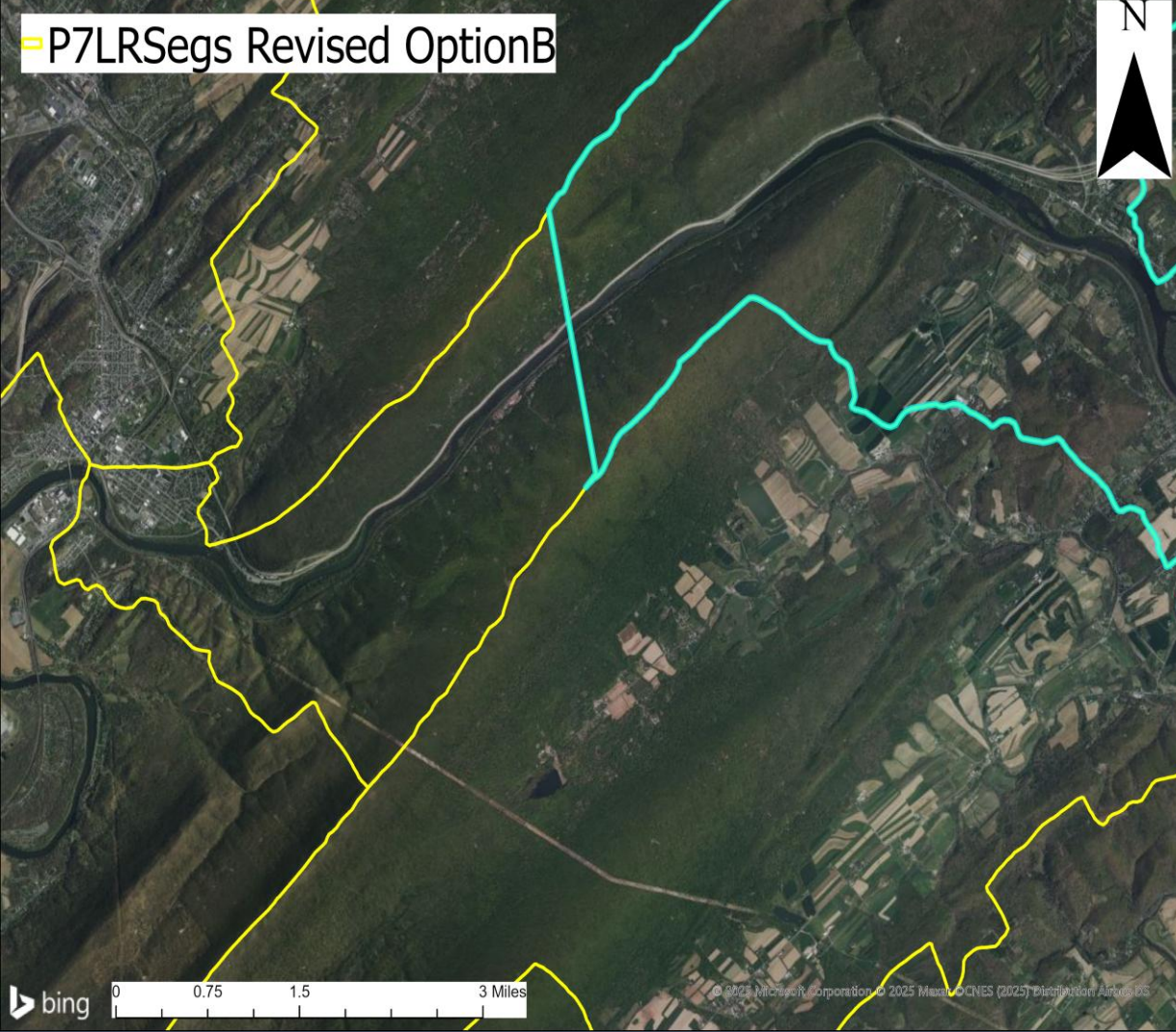
Location: Ridgeline in the
Susquehanna Watershed,
Mifflin and Juniata Counties,
PA



After

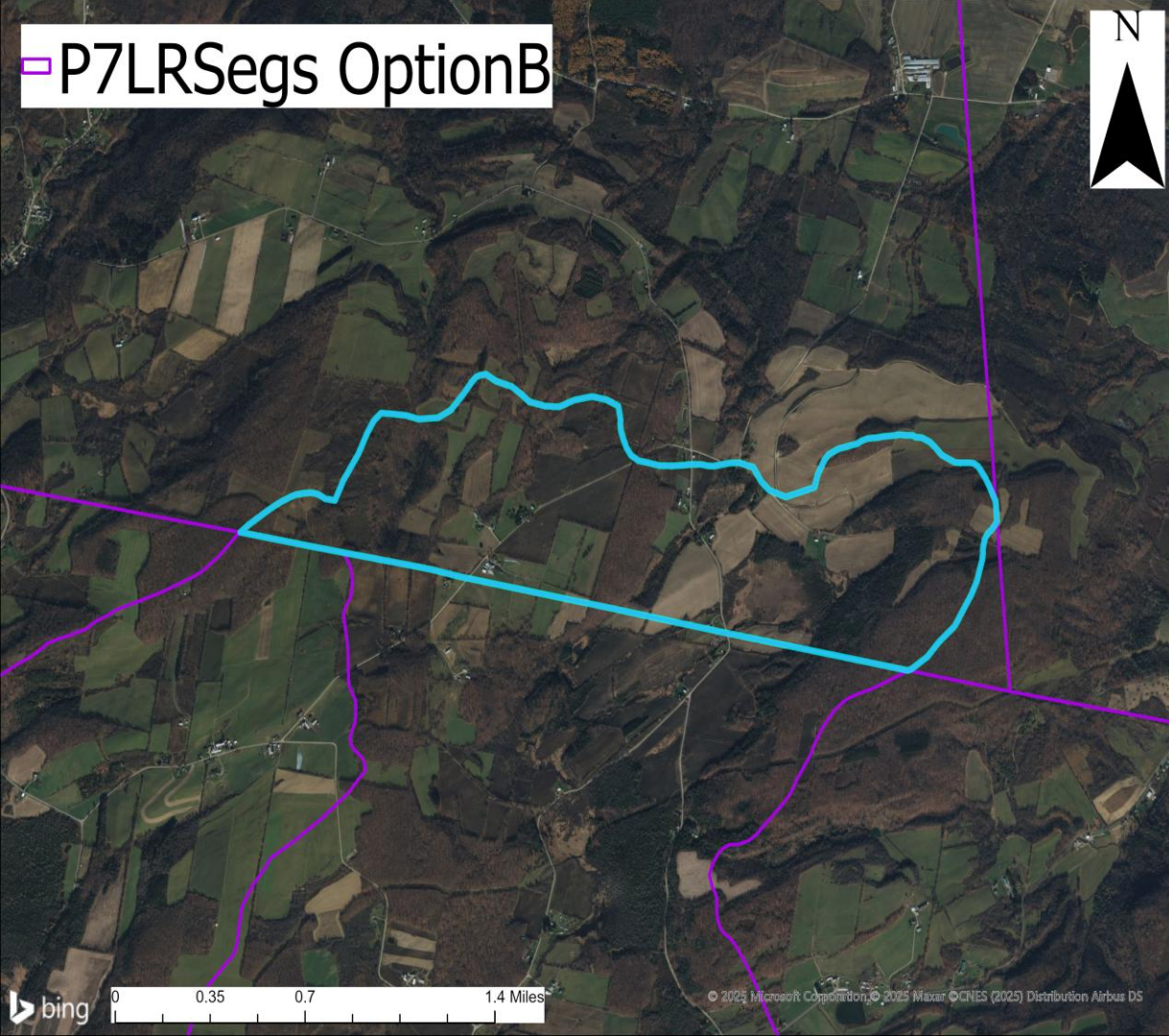
Multi-part polygons removed in the revised version

Location: Ridgeline in the Susquehanna Watershed, Mifflin and Juniata Counties, PA



Revisions – Preservation of HUC 12s

- Reverted back to original HUC 12 boundaries for multi-part polygons on the boundary of the Chesapeake Bay watershed.
 - This added 17 Land-River Segments compared to the original Option B.



P7LRSegs OptionB



Before

HUC 12 boundaries
dissolved to constitute a
larger LRseg

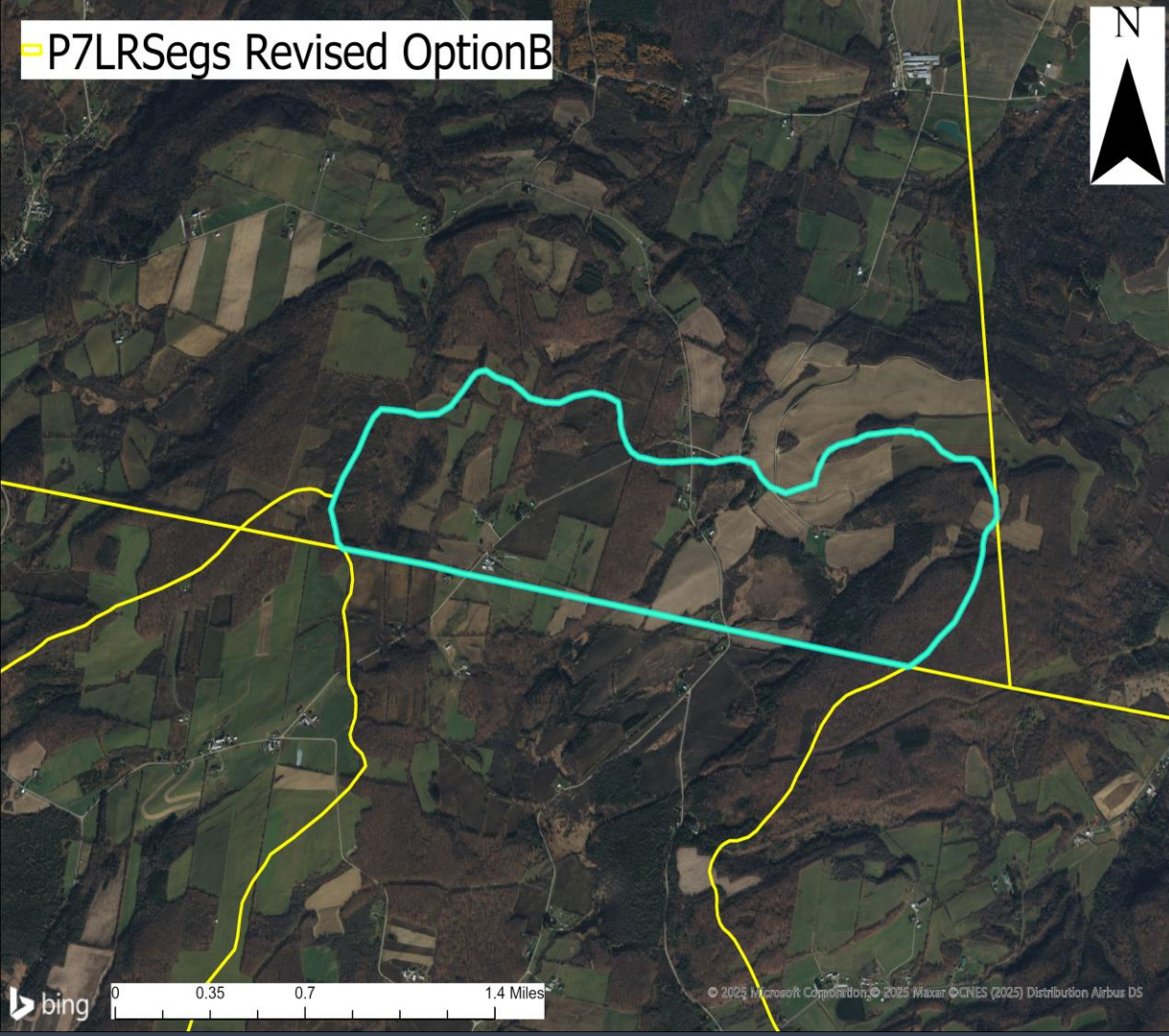
Location: Herkimer County, NY



After

Reverted back to original
HUC 12 boundaries to
reflect appropriate
allocation

Location: Herkimer County, NY

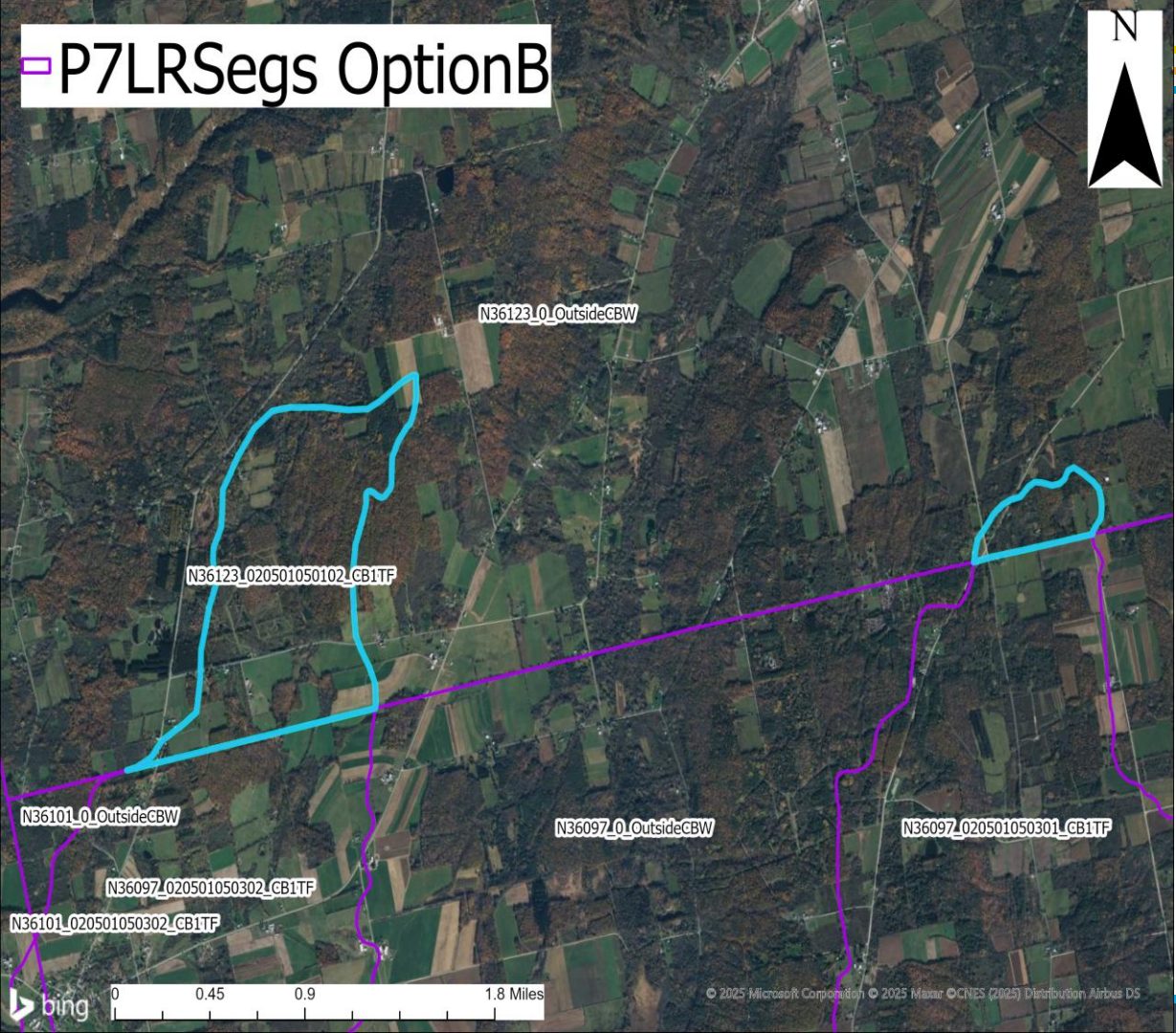


□ P7LRSegs OptionB



Before

HUC 12 boundaries
dissolved to constitute a
larger LRseg

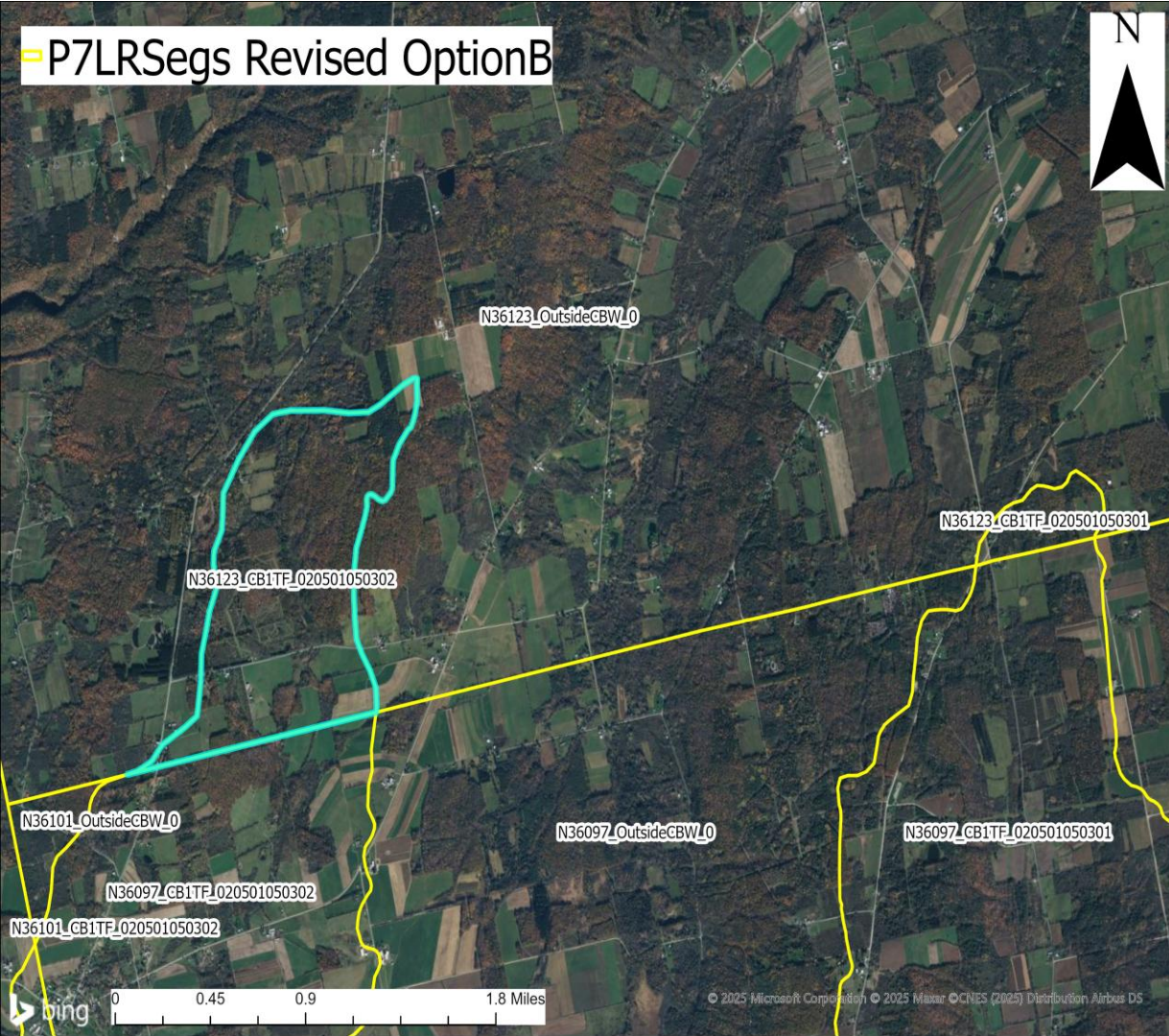


Location: Yates County, NY



After

Reverted back to original
HUC 12 boundaries to
reflect appropriate
allocation



Location: Yates County, NY

Revisions – Align with Updated CBW

- Adjusted segmentshed boundry to align with the authoritative Chesapeake Bay watershed boundary approved in 2023.
 - This added 1 Land-River Segment in NY since the authoritative watershed boundary crosses a county boundary.
 - This expanded the size of 4 existing LRsegs:
 - 1 in NY, 1 in DE, 1 in MD, 1 in VA

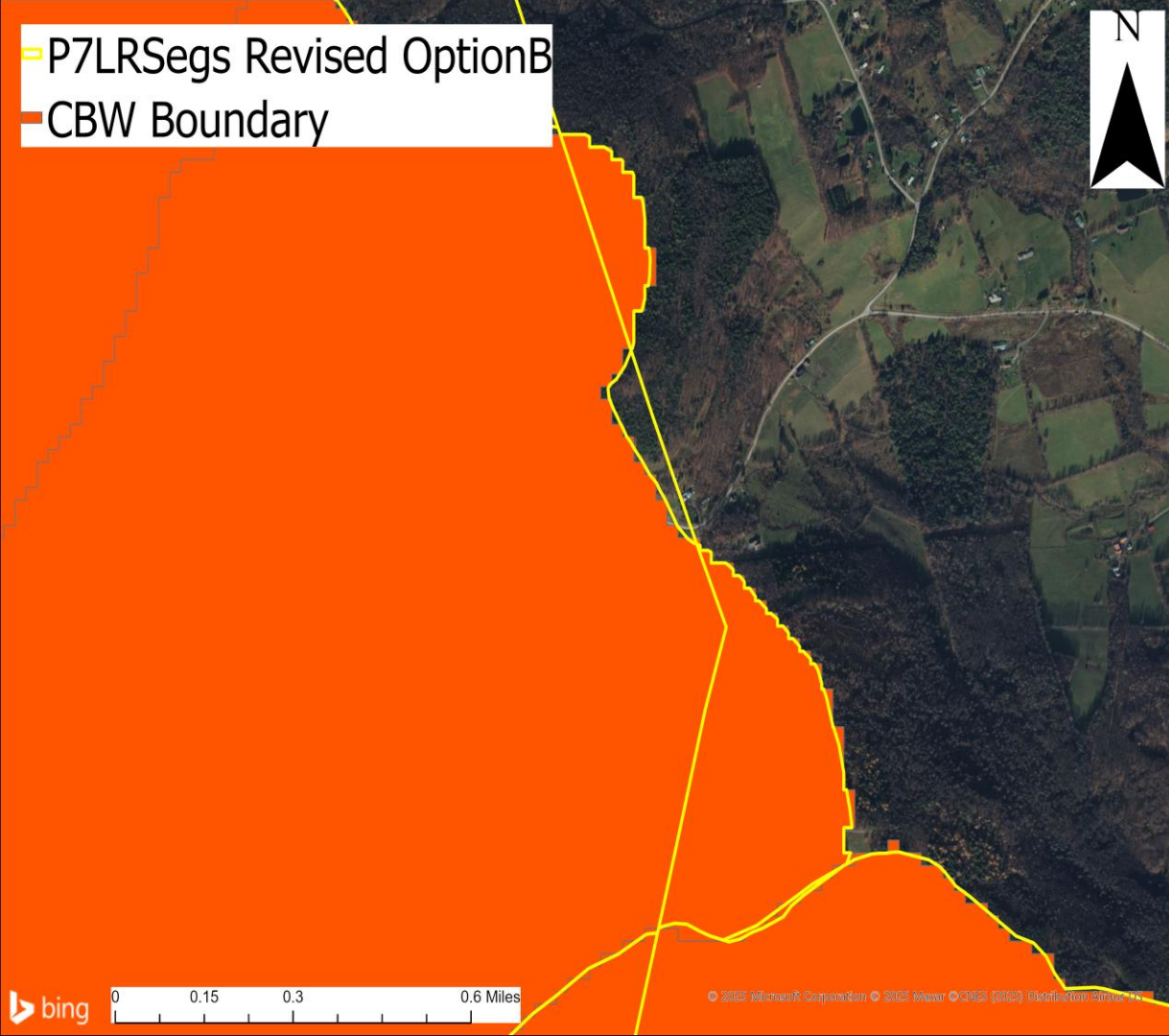
- P7LRSegs OptionB
- CBW Boundary



Before

Portion of the CB watershed not included in P6 segmentshed boundaries

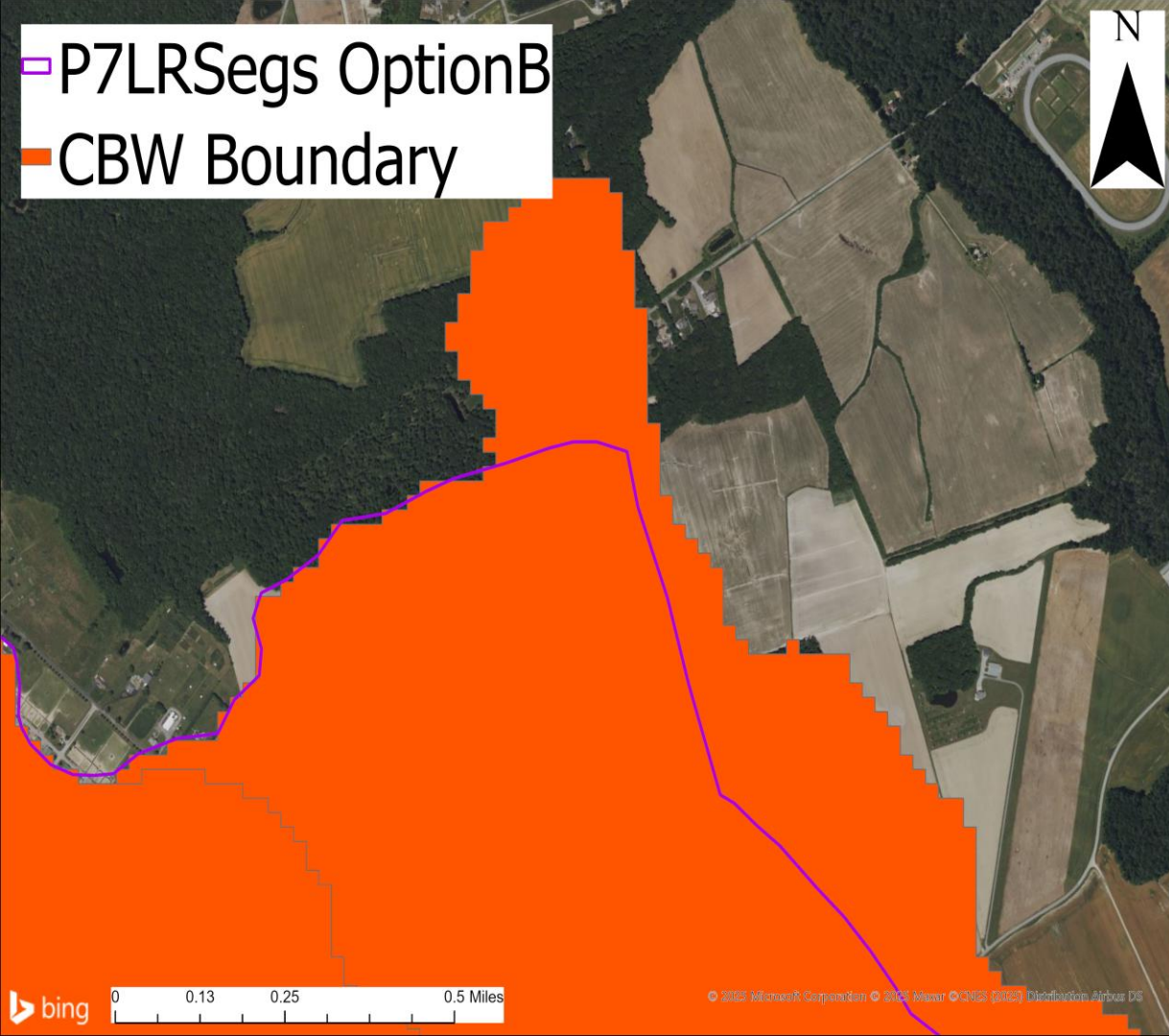
Location: Schoharie County, NY



After

LRseg added to reflect authoritative CB watershed boundary

Location: Schoharie County, NY

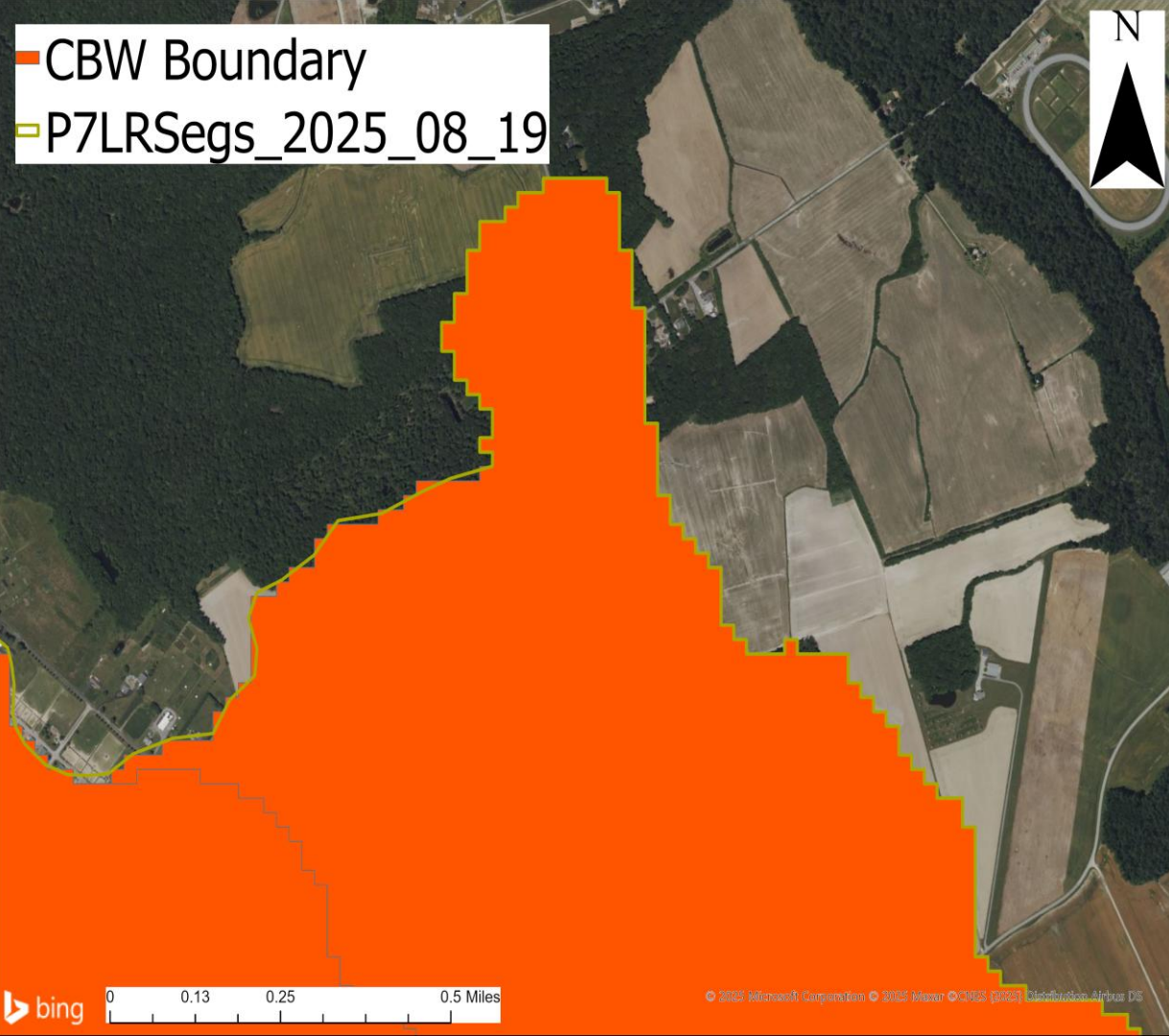


□ P7LRSegs OptionB
■ CBW Boundary

Before

Portion of the CB watershed not included in P6 segmentshed boundaries

Location: Kent County, DE



After

Existing LRseg enlarged
to reflect authoritative
CB watershed boundary

Location: Kent County, DE

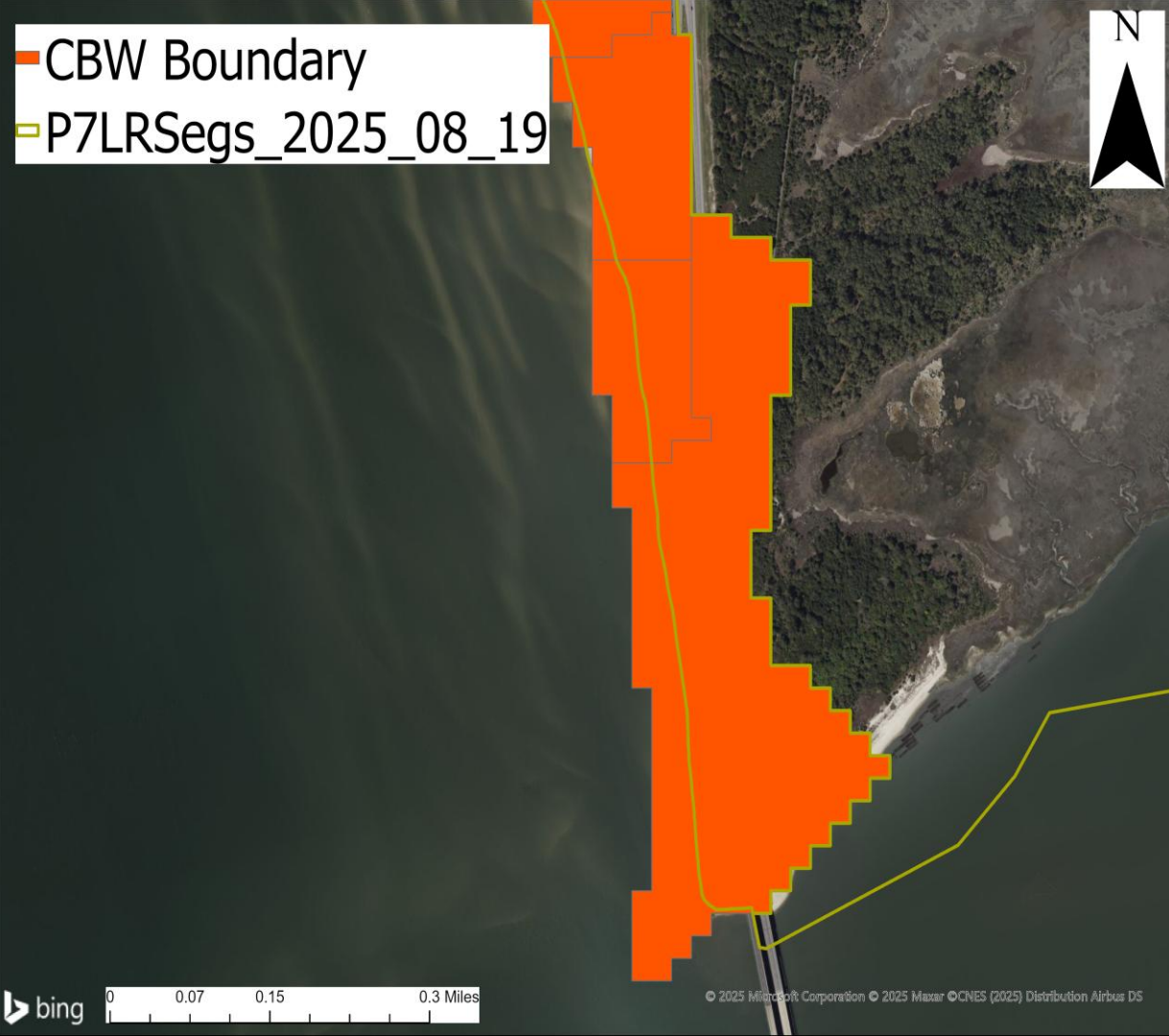
— P7LRSegs OptionB
— CBW Boundary



Before

Portion of the CB watershed not included in P6 segmentshed boundaries

Location: Northampton County, VA

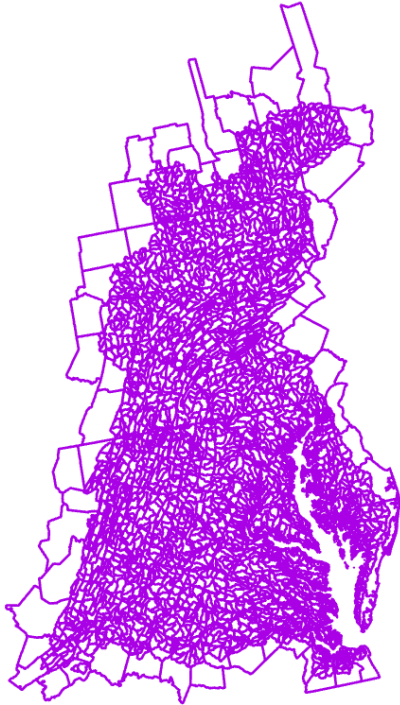


After

Existing LRseg enlarged
to reflect authoritative
CB watershed boundary

Location: Northampton
County, VA

Phase 7 Option B



N= 3533

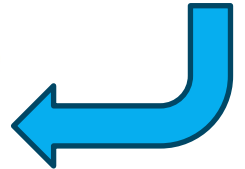
[Interact with the
different layers in this
web map.](#)

Phase 7 Option B



N= 3542

Net increase of
9 Land-River
Segments
since 18 were
added and 9
were removed



Land-River Segments – Comparison

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	41,121,873	41,066,833	41,066,678
# of Segments	1,925	3,533	3,542
# of Segments < 1000 Acres	200	371	386
# of Segments < 100 Acres	4	58	65
Minimum Segment Size	~19 acres	~14 acres	~14 acres
Average Segment Size	21,362 acres	11,623 acres	11,594 acres
Median Segment Size	10,910 acres	10,383 acres	10,348 acres



Thank you!

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Land-River Segments – DC

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	39,759	39,501	39,501
# of Segments	12	9	9
# of Segments < 1000 Acres	4	1	1
# of Segments < 100 Acres	0	0	0
Minimum Segment Size	~165 acres	~235 acres	~235 acres
Average Segment Size	3,313 acres	4,389 acres	4,389 acres
Median Segment Size	1,503 acres	3,661 acres	3,661 acres

Land-River Segments – Delaware

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	455,210	455,155	455,305
# of Segments	26	38	38
# of Segments < 1000 Acres	2	4	4
# of Segments < 100 Acres	0	0	0
Minimum Segment Size	~198 acres	~198 acres	~198 acres
Average Segment Size	17,508 acres	11,977 acres	11,981 acres
Median Segment Size	8,535 acres	9,120 acres	9,120 acres

Land-River Segments – Maryland

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	5,910,128	5,872,566	5,872,554
# of Segments	506	503	502
# of Segments < 1000 Acres	37	35	36
# of Segments < 100 Acres	1	5	3
Minimum Segment Size	~98 acres	~24 acres	~50 acres
Average Segment Size	11,680 acres	11,675 acres	11,698 acres
Median Segment Size	7,795 acres	10,456 acres	10,517 acres

Land-River Segments – New York

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	4,010,010	4,009,963	4,010,206
# of Segments	133	360	366
# of Segments < 1000 Acres	11	35	43
# of Segments < 100 Acres	0	4	8
Minimum Segment Size	~104 acres	~14 acres	~14 acres
Average Segment Size	30,150 acres	11,138 acres	10,956 acres
Median Segment Size	22,458 acres	10,627 acres	10,514 acres

Land-River Segments – Pennsylvania

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	14,470,487	14,471,039	14,470,532
# of Segments	505	1,161	1,161
# of Segments < 1000 Acres	55	147	148
# of Segments < 100 Acres	0	23	27
Minimum Segment Size	~117 acres	~18 acres	~18 acres
Average Segment Size	28,654 acres	12,464 acres	12,463 acres
Median Segment Size	15,238 acres	11,137 acres	11,137 acres

Land-River Segments – Virginia

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	13,947,361	13,929,573	13,929,570
# of Segments	630	1,235	1,238
# of Segments < 1000 Acres	77	122	126
# of Segments < 100 Acres	3	22	23
Minimum Segment Size	~19 acres	~14 acres	~14 acres
Average Segment Size	22,138 acres	11,279 acres	11,251 acres
Median Segment Size	12,483 acres	9,759 acres	9,698 acres

Land-River Segments – West Virginia

	Phase 6 (Within the watershed)	Phase 7 Option B (Within the watershed)	Phase 7 Option B Revised (Within the watershed)
Total Area (acres)	2,288,914	2,289,033	2,289,006
# of Segments	113	227	228
# of Segments < 1000 Acres	14	27	28
# of Segments < 100 Acres	0	4	4
Minimum Segment Size	~129 acres	~46 acres	~39 acres
Average Segment Size	20,255 acres	10,083 acres	10,039 acres
Median Segment Size	9,655 acres	9,182 acres	9,095 acres