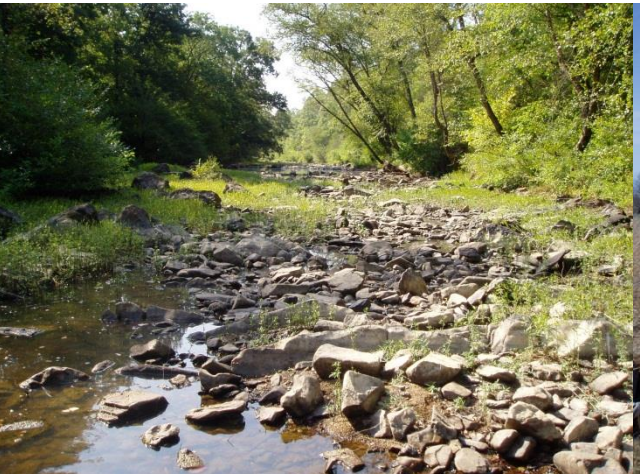


Oklahoma Nonpoint Source Management Plan Update: 2013

Oklahoma Conservation Commission

December 10, 2013



Review of Sept. 2013 meeting

- Discussed long- and short-term goals
- Reviewed HUC 12 map
- Discussed ballot results and changes that will be made to NPS Watershed Prioritization Ranking Criteria
- Next steps

Topics for Today

- Determine what long- and short-terms goal should be
- Discuss questions sent out with email
- Show how changes to priority ranking have changed
- Next steps

NPS Management Plan Goals (from 2006 Update)

- Long-term Goal of NPS Management Plan
  - *"By 2015, the State of Oklahoma's NPS Program will establish a State-approved Watershed Based Plan, TMDL, or implementation plan (unless the original basis for listing a waterbody is no longer valid) to restore and maintain beneficial uses in all watersheds identified as impacted by NPS pollution in the 1998 303(d) List. The 1998 303(d) List identifies 8,156 miles of stream and 291,293 acres of lake area as impaired or fully supporting but threatened. By 2020, the State will have implemented actions in each of those watersheds to move towards attainment and maintenance of beneficial uses in waterbodies listed on the 1998 303(d) list as threatened or impaired by NPS pollution."*

NPS Management Plan Goals (from 2012 Addendum)

- By 2020, the State of Oklahoma's NPS Program will establish a State-approved Watershed Restoration Action Strategy, TMDL, or implementation plan (unless the original basis for listing a waterbody is no longer valid) to restore and maintain beneficial uses in all watersheds identified as impacted by NPS pollution in the 1998 303(d) List (Appendix A). The 1998 303(d) List identifies 8,156 miles of stream and 291,293 acres of lake area as impaired or fully supporting but threatened. By 2040, the State will attain and maintain beneficial uses in waterbodies listed on the 1998 303(d) list as threatened or impaired solely by NPS pollution.

Short-Term Goal 1

- Oklahoma will follow the priorities established by the Unified Watershed Assessment, TMDL schedule, and the NPS Working Group per schedules in Table 1 to reduce NPS loading in priority watersheds with accepted plans by the percentages shown therein. This effort will address 487 stream miles (five percent of the 303(d) listed streams and one percent of the state's total stream miles) and affect loadings to 79,312 acres of lakes (14% of the impaired lake acres and twelve percent of the state's total lake acres).

Short-Term Goal 2

- The OCC will identify pollutant sources within watersheds monitored by the NPS Rotating Basin Monitoring Program. These potential sources of impairment will be included in the OCC's submission of data for the State's integrated Report.

Short-Term Goal 3

- Oklahoma will work to introduce the Blue Thumb Program to all 87 Oklahoma Conservation Districts as a model program to meet their environmental education needs. Blue Thumb will then work with each Conservation District who requests assistance to develop and maintain a Blue Thumb program in their area. Blue Thumb will work to maintain a coverage of water quality enhanced education programs that include at least 100 consistently monitored stream sites maintained by volunteers and at least five active Blue Thumb groups in each of the five Conservation District Areas (i.e., 40 active Conservation District Blue Thumb Programs statewide). Blue Thumb will also work to maintain active programs in each of the State's NPS Priority Watersheds listed in Table 1 as part of recommended Watershed Based Plan implementation efforts.

Short-Term Goal 4

- The State will draft and update Watershed Restoration Action Strategies or Watershed Based Plans (WBP) in NPS impaired watersheds with sufficient data. These plans will be drafted as requests are made by local stakeholder groups and as funds become available for plan development.

Short-Term Goal 5

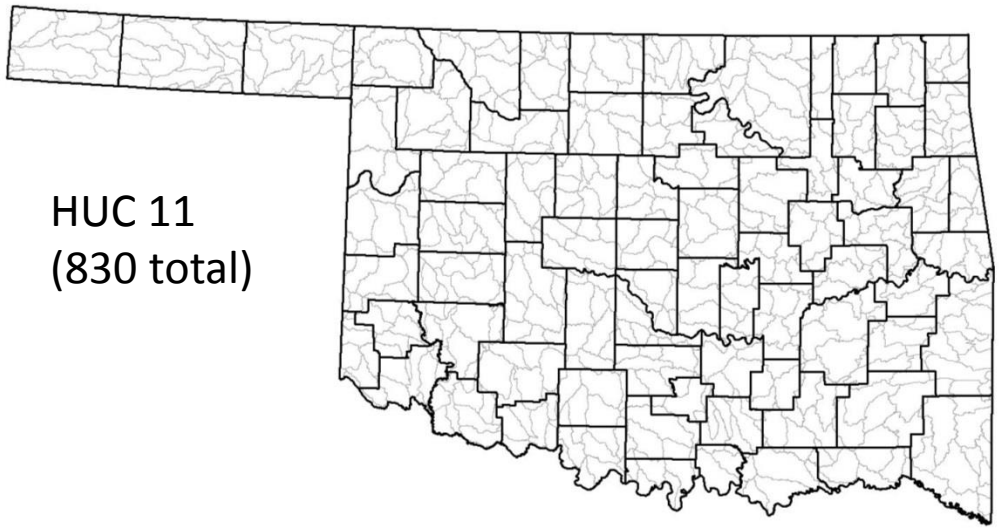
- The NPS program will work with other State and Federal programs to identify alternative sources of funding to target and implement practices to achieve the long-term goal of beneficial use attainment by 2040 based on implementation plans developed by the State.

NEW NPS Watershed Prioritization Ranking Criteria

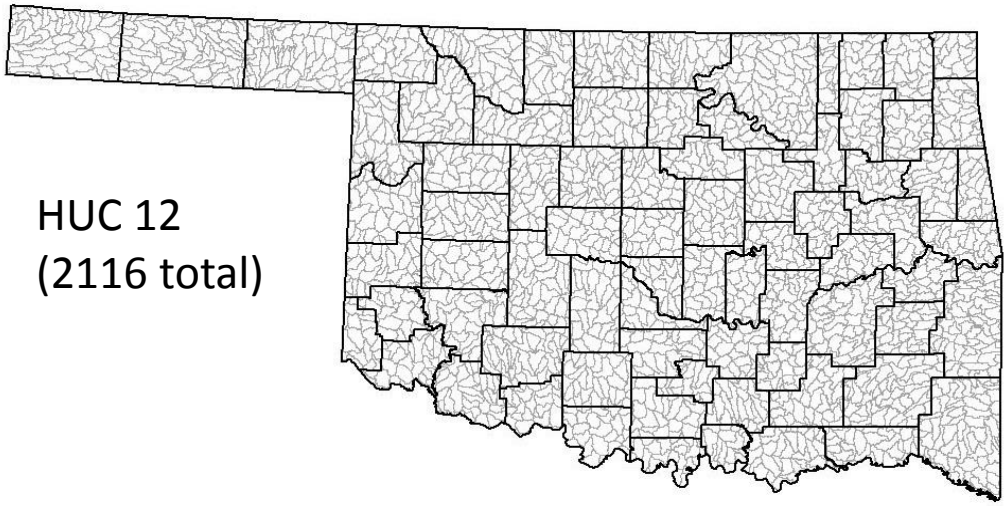
RANKING CRITERIA		POINTS	15	10	5	3	0
% Waterbodies impaired on 303d list in HUC (includes Cat 4 & 5) (units of lake impairment reflected in actual stream miles			≥85%	<85 to 65%	<65 to 45%	<45 to 25%	≥25%
Pollutant severity score of HUC			P, N, Turbidity, Pathogens & Low DO	Toxics/Bioassay, Pesticides and Biocriteria	Metals, Ammonia, O & G, Cl/TDS/SO_4, T & O, and pH		no impairments
Federal & State T & E species in HUC[1]			≥3	2	1		
Highest designated protected waterbody			Scenic R/ORW	HQW/SWS			
Nutrient Limited Watershed				Yes			No
Est. decrease in wetlands, 1982 to 2002			gain or <1%	1 to 5%	>5 to 10%	>10% to 20%	>20%
USF&WS priority wetland present					YES		NO
App. B, % of HUC					upper 50th percentile	lower 50th percentile	no appendix B areas
NRCS Local emphasis areas and other protection programs				≥ 4 programs	2-3 programs	1 program only	
		POINTS	7.5	5	2.5	1.5	
# of PWS intakes in HUC			≥4	3	2	1	0
# of PWS customers served in HUC			≥100,000	999,999 - 10,000	9,999 - 1,000	999 - 1	0

1- includes habitat for Federally threatened or endangered aquatic and semi-aquatic organisms only.

UWA - Watershed Frame

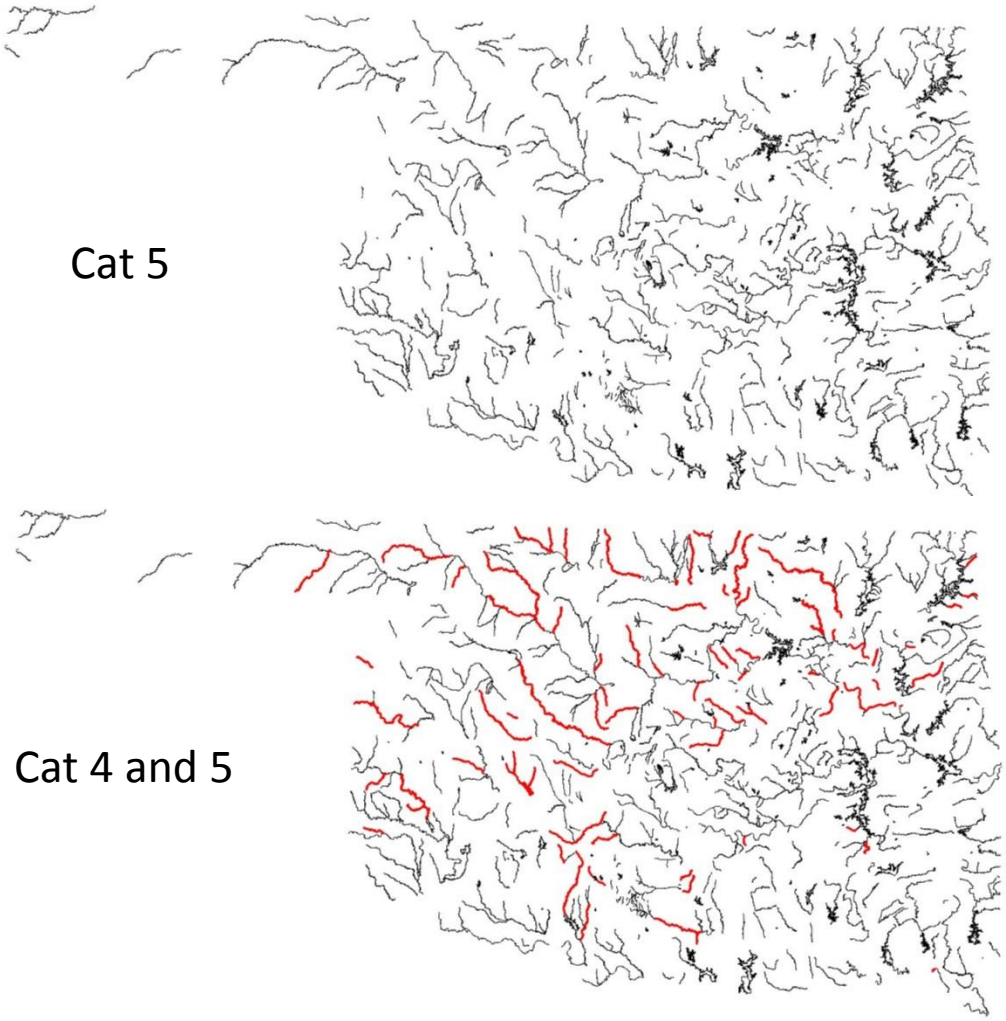


HUC 11
(830 total)



HUC 12
(2116 total)

IR 2012 - Category Difference



Questions for Group

1. Wetlands gains/losses metric – The UWA includes a metric that scores watersheds based on wetlands loss estimates. The current source of data (USDA NRI study) renders probabilistic based estimates for HUC 8 watersheds, but over half of the watersheds show margins of error that far exceed the estimate itself. Are there other sources/ideas to represent wetland gains/losses in the scoring regime?

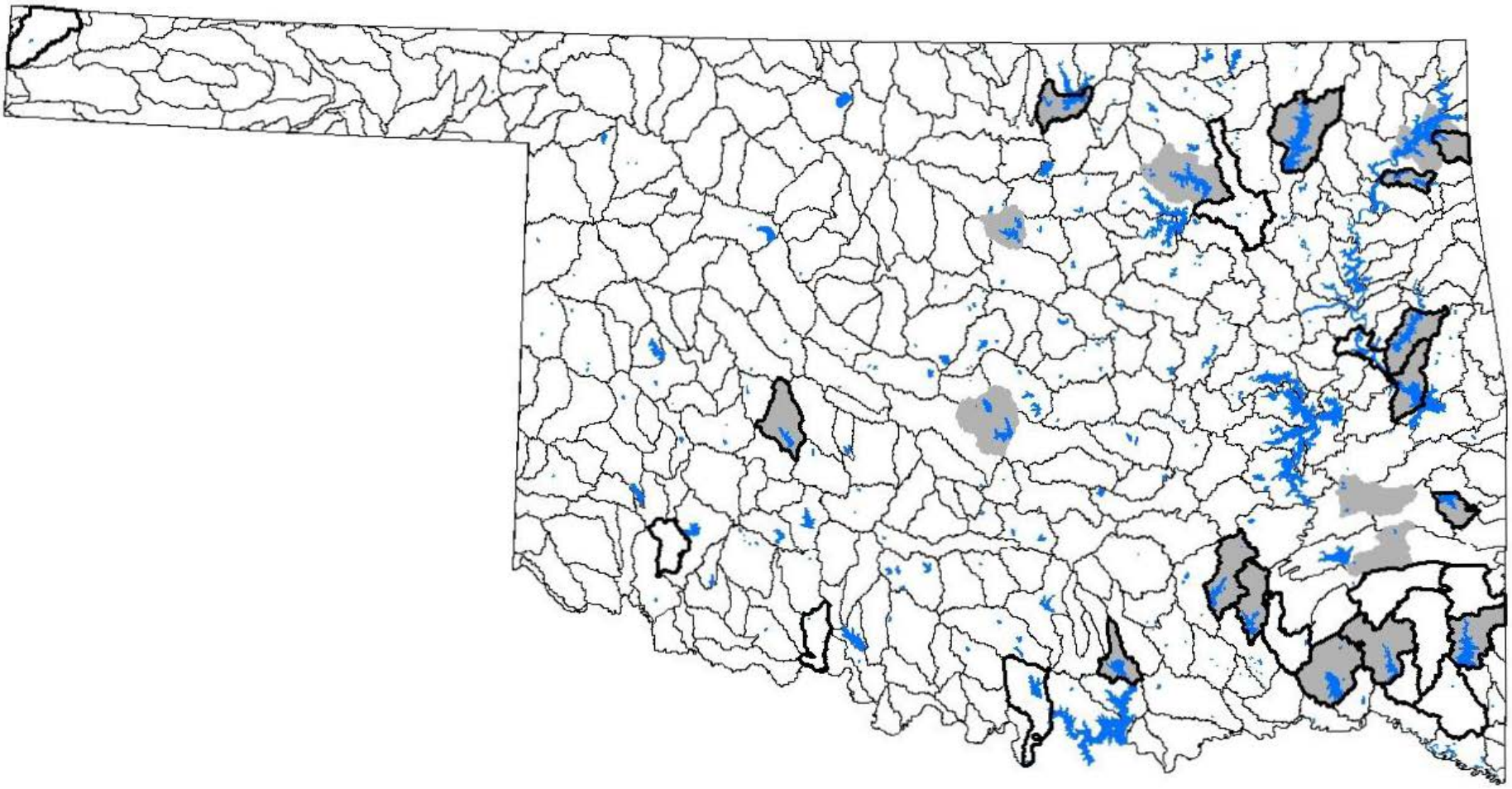
Questions for Group

2. Stream equivalence for lakes – The WG voted to amend the manner by which stream equivalence was rendered for lakes from the simple areal multiplication method to the actual NHD hi-res stream network underlying the lake footprint. This appears to be rendering a much more realistic stream equivalence. However, due to the more refined spatial focus of HUC 12s, this means that watersheds with impaired lakes may still receive the maximum score since most of the watershed will be impaired. We still have more work to do to verify this, but please consider possible ways by which we can more equitably and reasonably represent watersheds with lakes.

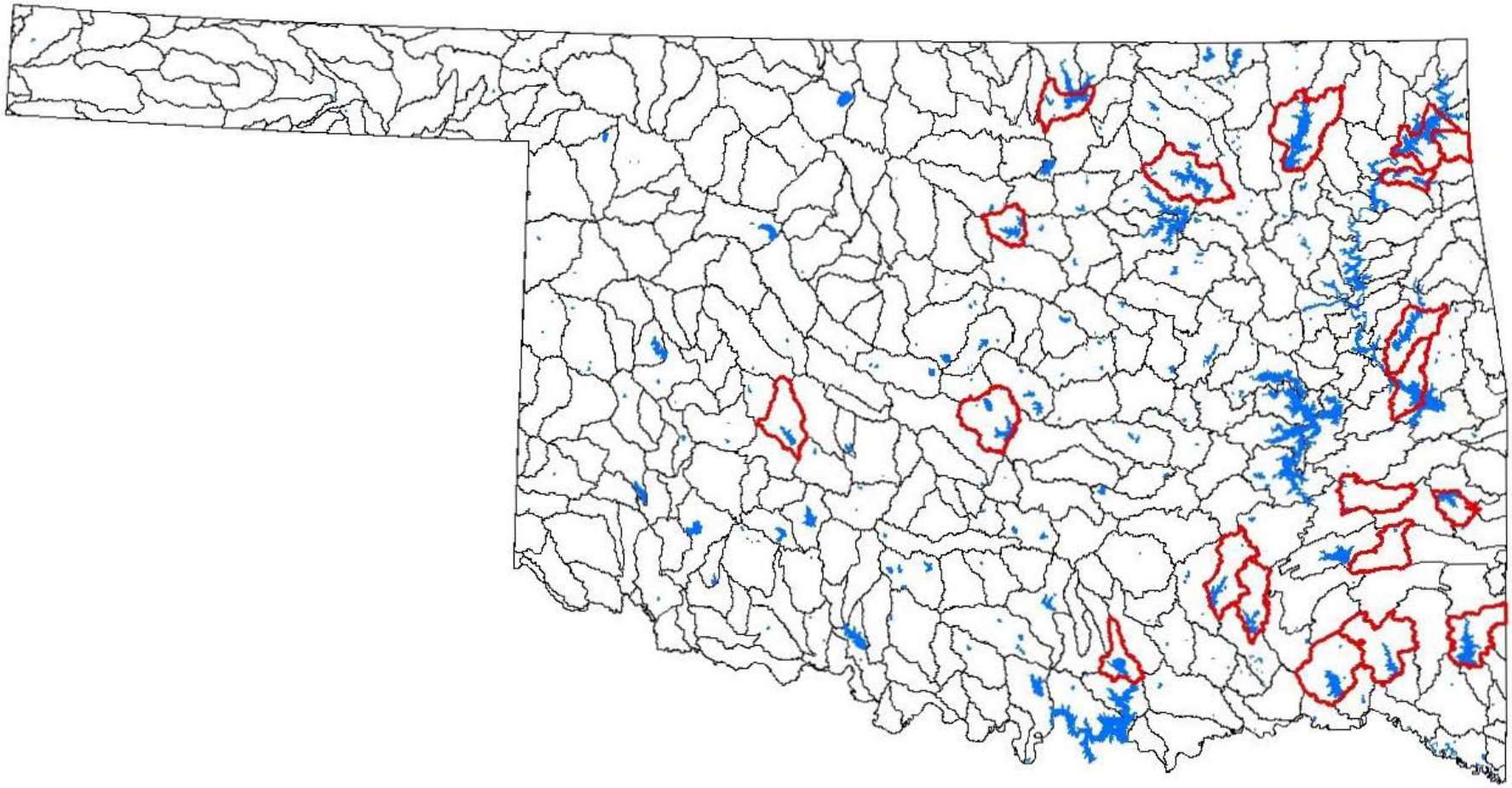
Questions for Group

3. Conservation Programs metric – The WG voted to amend the "NRCS LEA" metric to include other conservation related programs (e.g., CRP, WRP) in addition to source water and well head protection areas. A quick application of this appears to show a bolstering of scores for most watersheds with somewhat limited separation. We are proposing to potentially incorporate an element of actual areal percentage of these programs by watershed in place of or in addition to the current presence/absence scheme. Issues or comments?

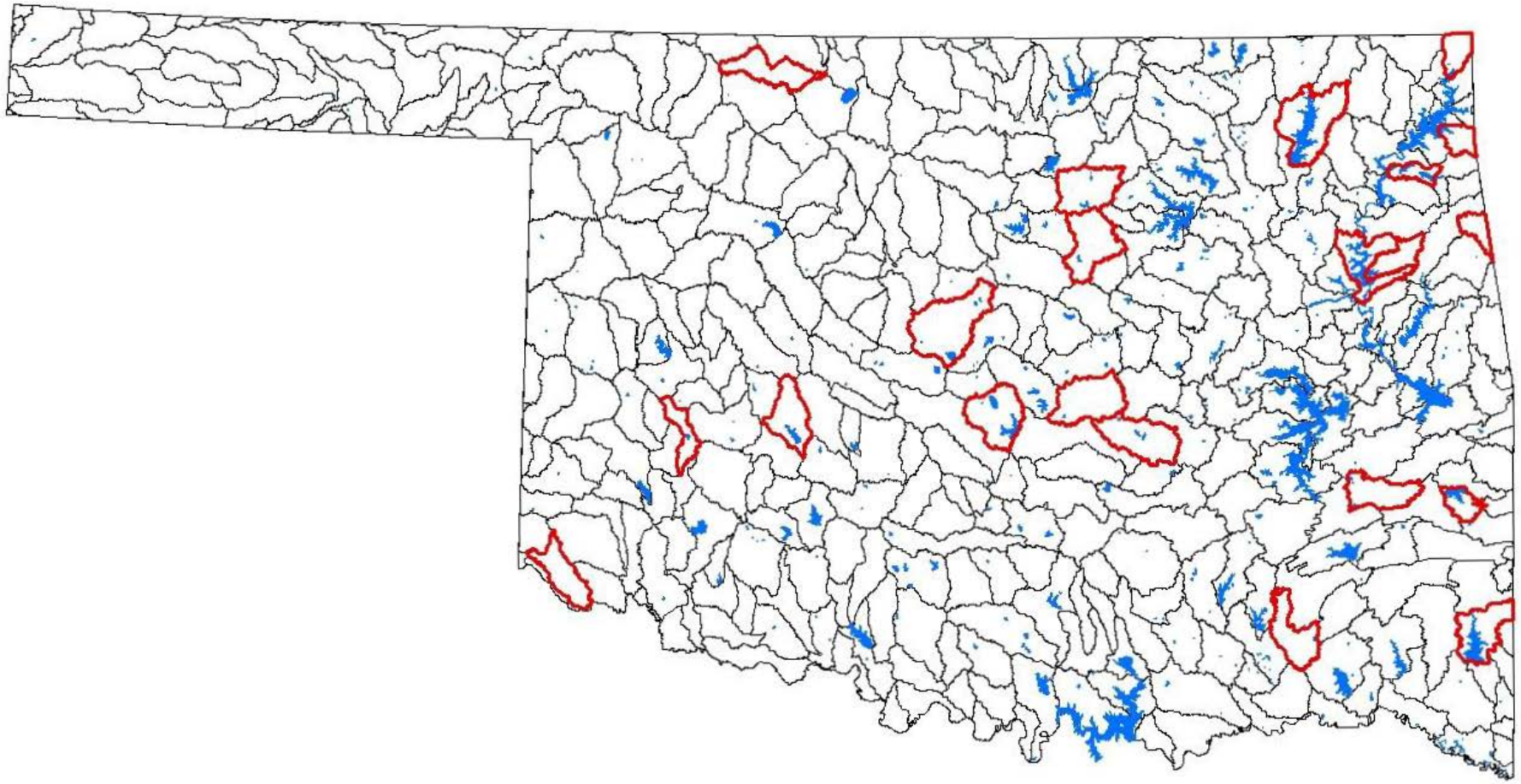
Revised Programs Core Only



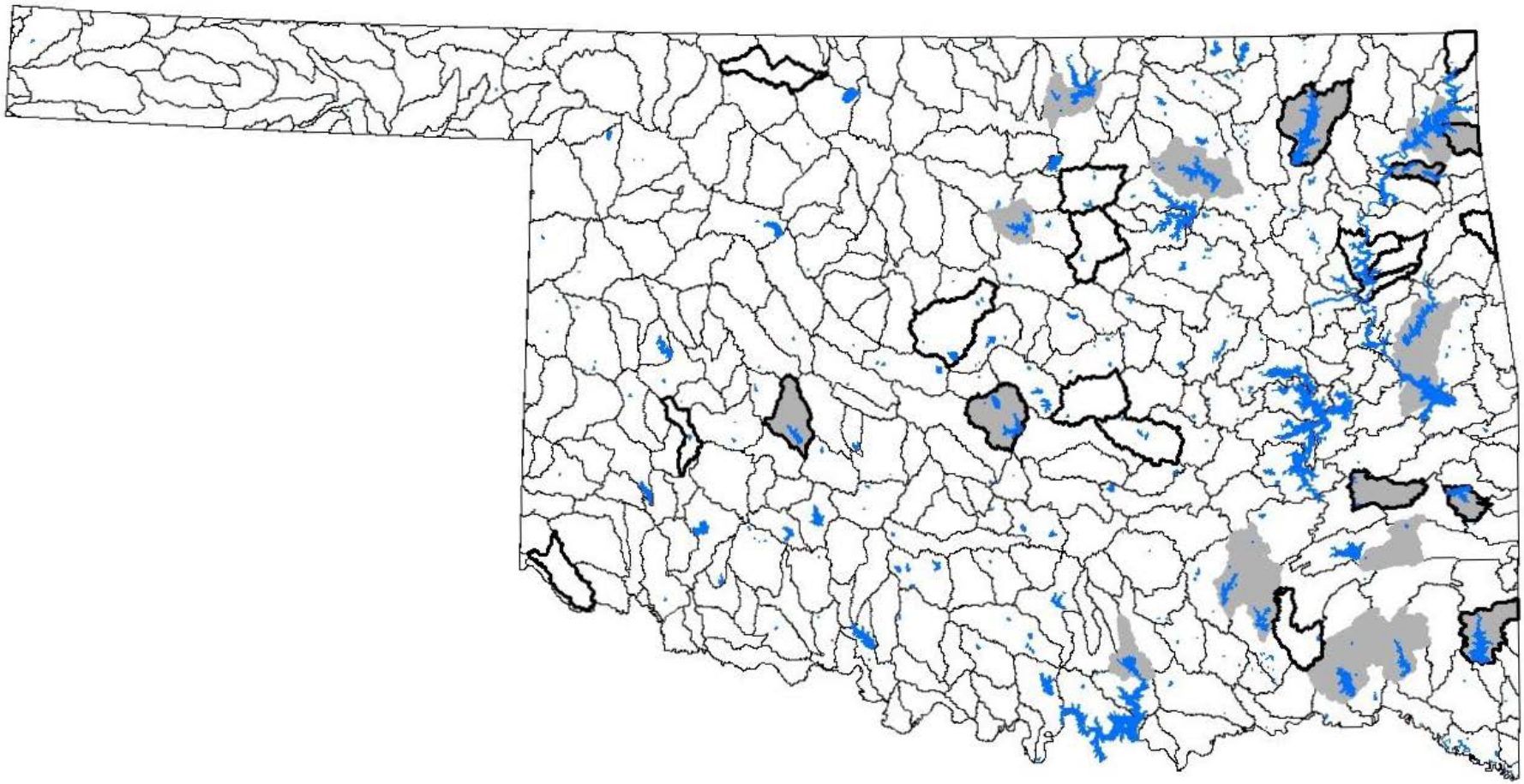
Original Cat. 1 Rankings



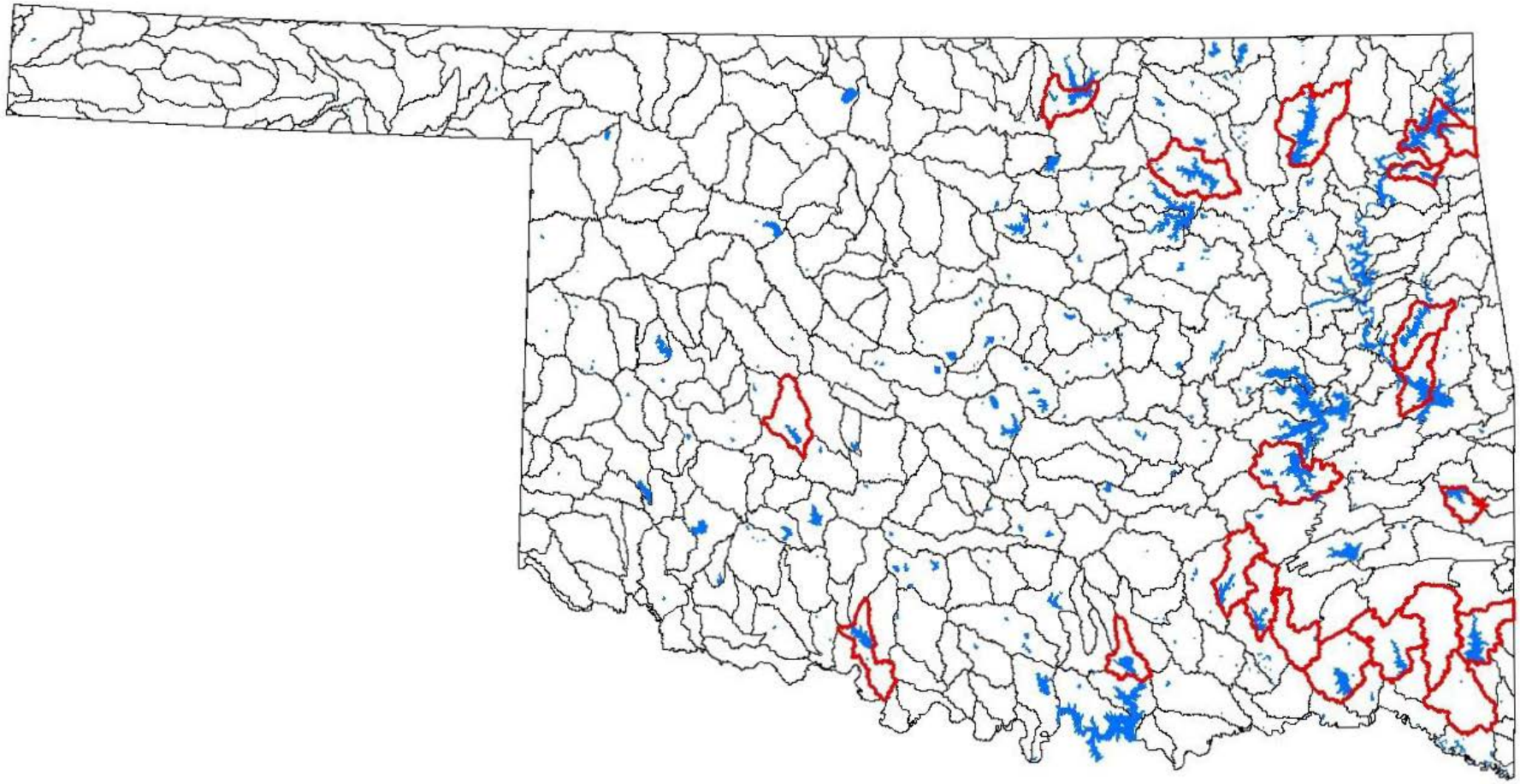
Updated Cat. 1 Rankings



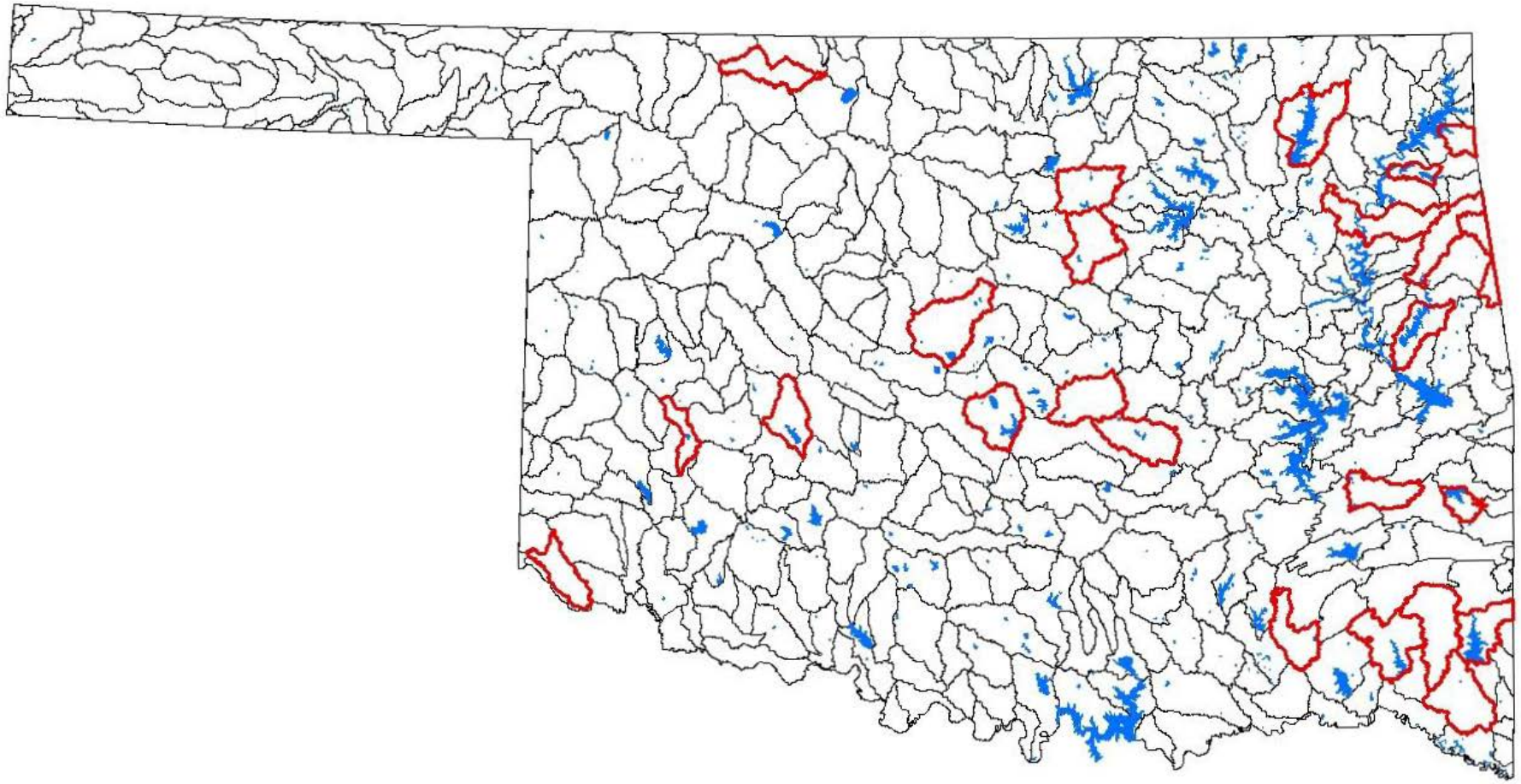
Combine Orig. & New Cat. 1 Rankings



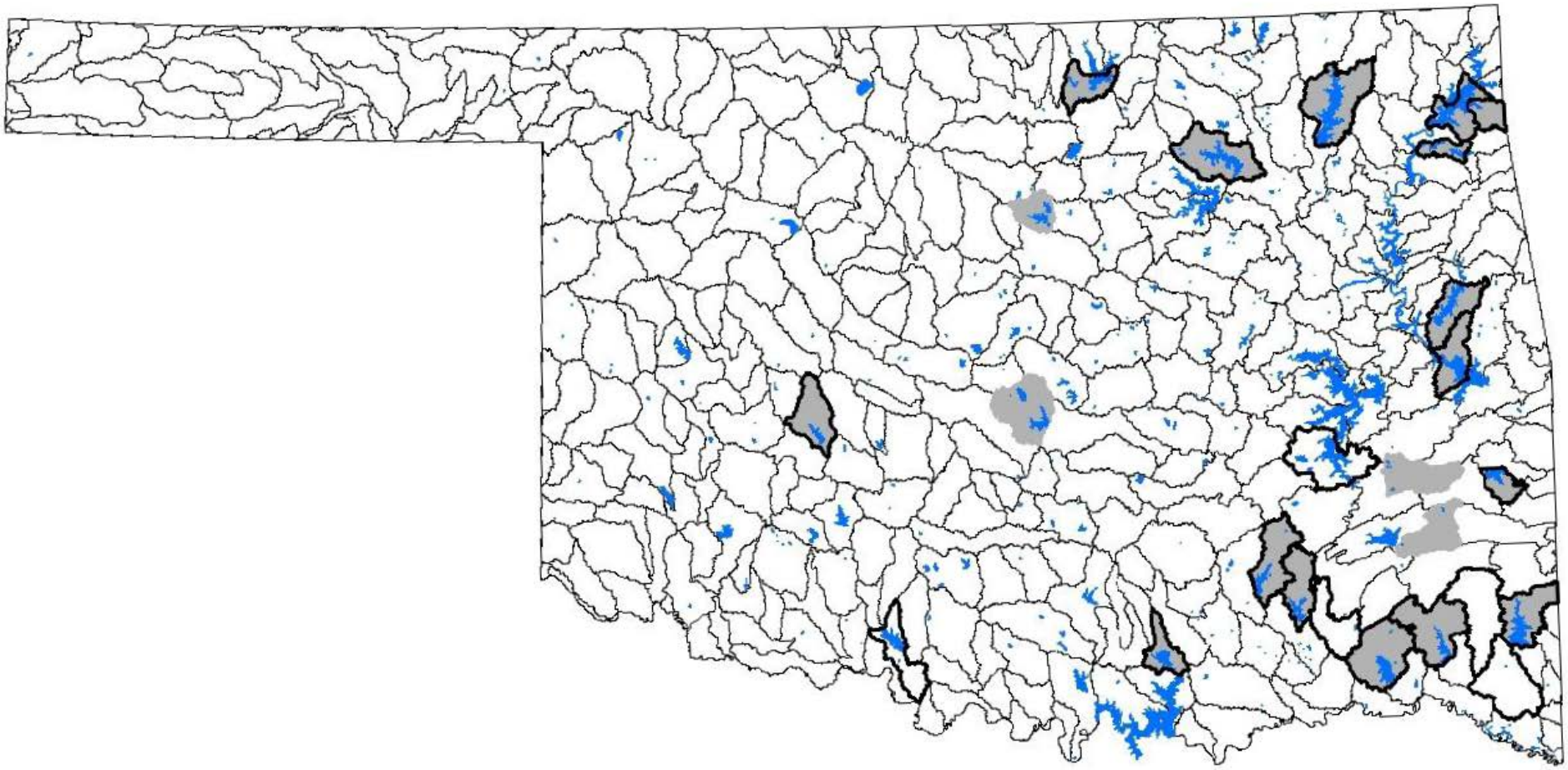
Original Total Rank



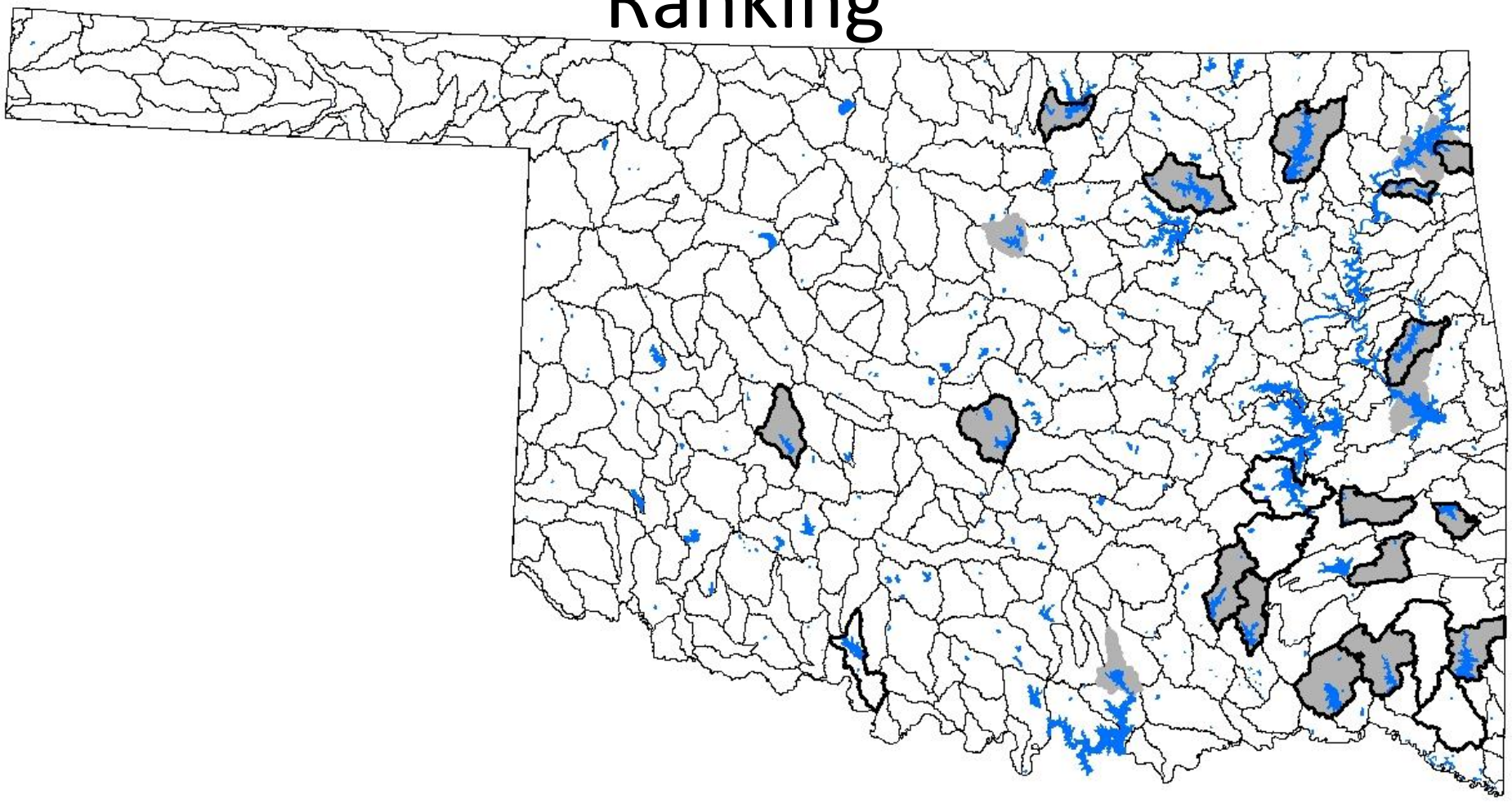
Revised Total Rank



Revised Pollutant Severity Score

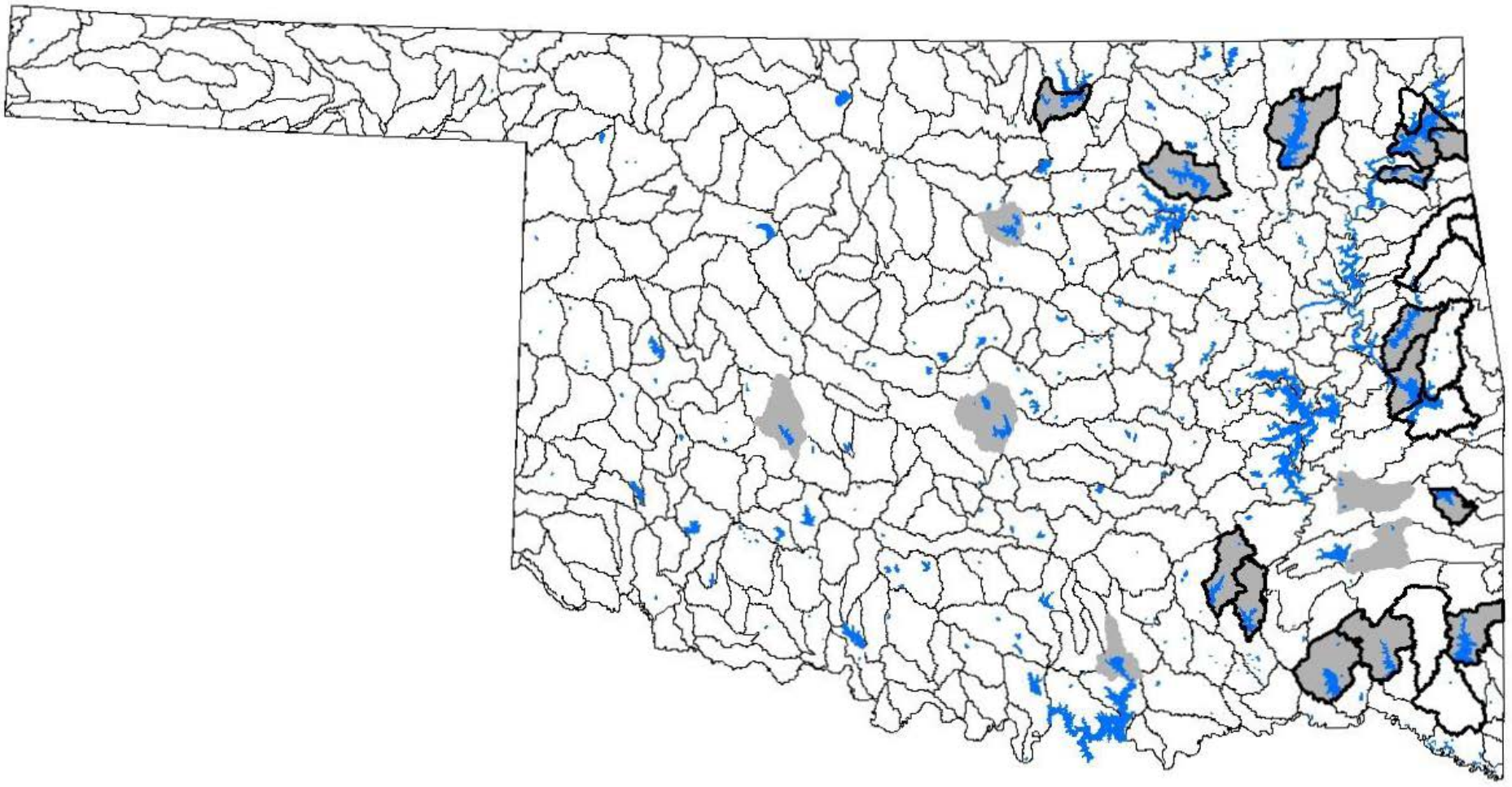


Revised Pristine and New Waters Only Ranking



Revised Pristine and New Waters & NLW Only Ranking

Revised T & E Only Rankings



Old and Revised Rankings

IDF	WBID	303(d) Listed Streams	HUC Outlet Stream Name	HUC 11 Code	Original total	Original Total Rank	Revised total	REVISED TOTAL RANK
383	OK121700030280_00	Illinois River	Illinois River	11110103050	37	52	65	1
181	OK121600050020_00	Spavinaw Lake	Spavinaw Creek (Hudson Lake)	11070209060	52	8	58	2
385	OK121700030010_00	Illinois River	Illinois River	11110103060	40	32	55	3
619	OK410210050020_00	Broken Bow Lake	Mountain Fork River (Broken Bow Lake)	11140108050	64	1	53	4
611	OK410210020020_00	Pine Creek Lake	Little River (Pine Creek Lake)	11140107020	53	6	50	5
615	OK410200010200_00	Little River	Little River	11140107050	59	3	50	5
407	OK220100040020_00	Fourche Maline Creek	Fourche Maline	11110105040	42	23	48	7
439	OK311500030040_00	Little Elk Creek	Little Elk Creek	11120303050	34	67	48	7
513	OK310830060020_00	Fort Cobb Lake	Cobb Creek	11130302130	44	19	48	7
601	OK410300030010_20	Kiamichi River	Kiamichi River	11140105060	45	17	48	7
107	OK621200030010_00	Black Bear Creek	Black Bear Creek	11060006090	38	42	45	11
116	OK121510010020_00	Oologah Lake	Verdigris River (Oolagah Lake)	11070103050	58	4	45	11
164	OK121600030320_00	Whitewater Creek	Honey Creek (Grand Lake)	11070206040	51	9	45	11
392	OK121700020020_00	Tenkiller Ferry Lake	Illinois River	11110103110	48	14	45	11
614	OK410210080010_00	Glover River	Glover River	11140107040	50	10	45	11
48	OK620910040010_20	Cottonwood Creek	Cottonwood Creek	11050002130	35	58	43	16
61	OK620900020050_00	Council Creek	Cimarron River	11050003050	28	107	43	16
74	OK621010010160_00	Arkansas River, Salt Fork	Salt Fork Arkansas River	11060002040	30	87	43	16
187	OK121600010430_00	Chouteau Creek	Neosho River (Fort Gibson Lake)	11070209100	28	107	43	16
226	OK520810000020_00	Thunderbird Lake	Little River (Lake Thunderbird)	11090203010	43	22	43	16
310	OK520510000095_00	Turkey Creek, Trib A!	North Canadian River	11100302030	34	67	43	16
316	OK520500020010_00	Wewoka Creek	Wewoka Creek	11100302050	34	67	43	16
389			Baron Fork	11110103080	15	249	43	16
412	OK220100020020_00	Wister Lake	Poteau River (Lake Wister)	11110105060	50	10	43	16
451	OK311600010040_00	Sandy Creek (Lebos)	Sandy Creek	11130101040	35	58	43	16

NEXT STEPS

- Continue data gathering to update UWA
- Make adjustments based on this meeting
- Next meeting
- Questions/Comments?
  - Jeri Fleming (jeri.fleming@conservation.ok.gov)