

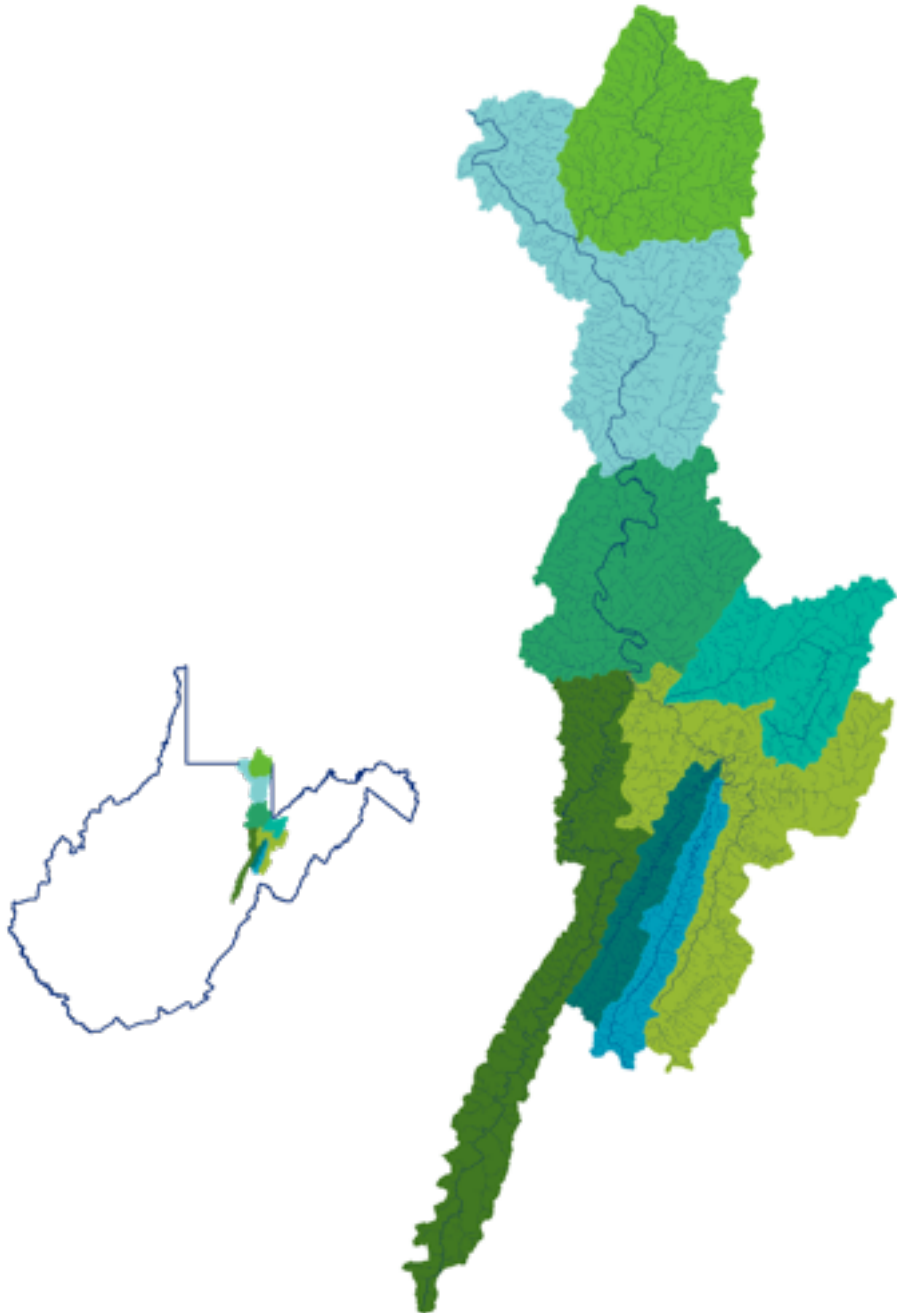
The Cheat River – A Promise (Mostly) Kept



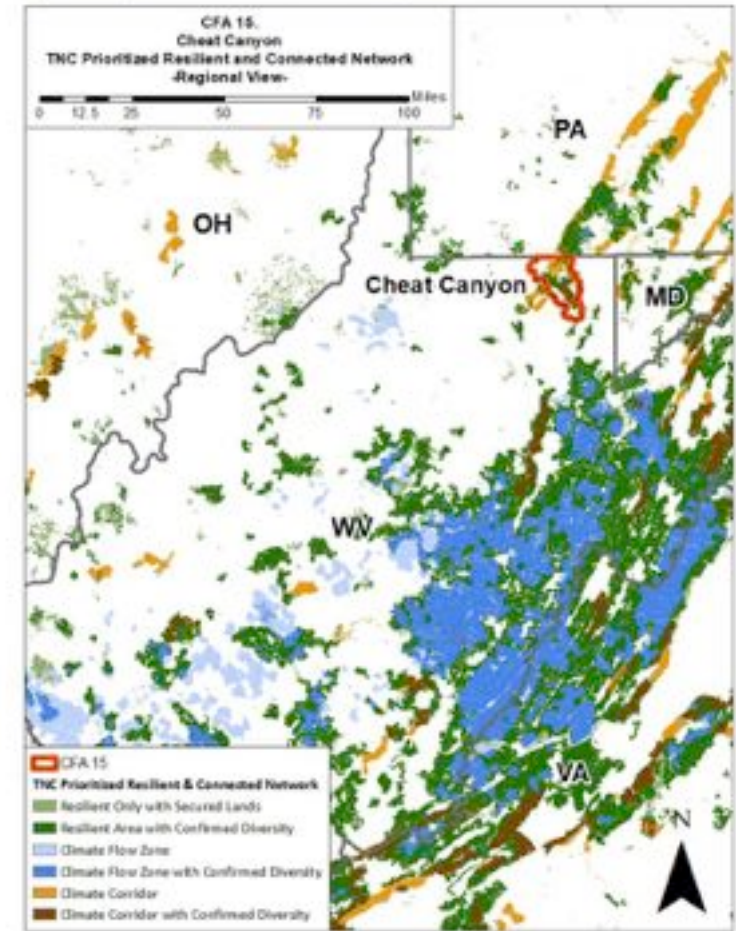
Friends of the Cheat

The Cheat River today, looking upstream towards Albright. Photo: Adam Webster

Cheat River Watershed



Map 16. Priority Resilient and Connected Network: Regional View



The Cheat River watershed is 1422 sq.mi. The Cheat is the second largest tributary to the Monongahela River. Only 2 major dams impede passage.



“Scarcely a living fish remained in the Cheat River between its forks at Parsons and its confluence with the Monongahela River, a distance of 75 miles...The West Virginia Natural Resource Commission learned that cattle had died from drinking the waters of the Cheat River, a stream once synonymous with purity.”

*Description of the Cheat River in the early 1900's,
Transforming the Appalachian Countryside, Ronald L. Lewis*



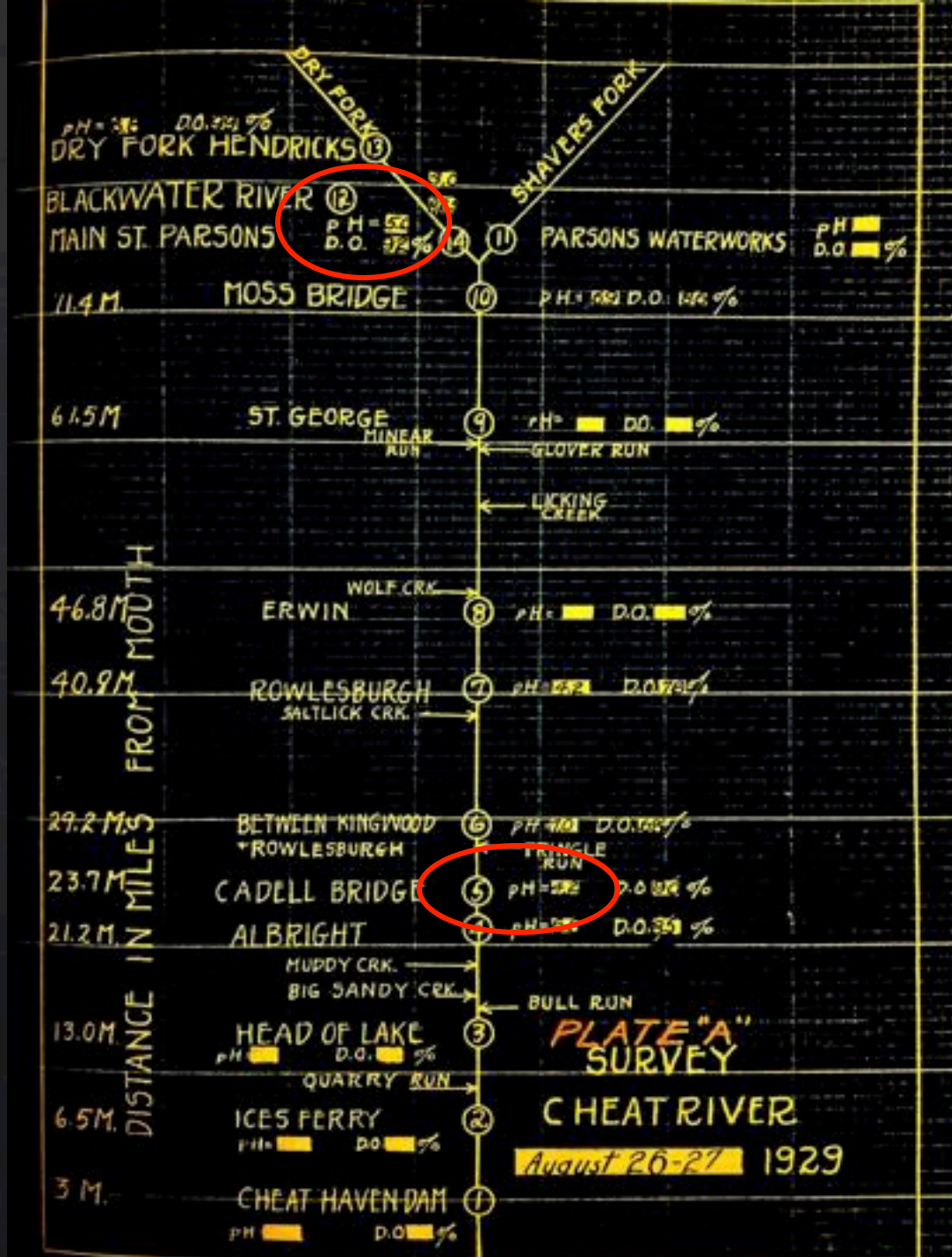
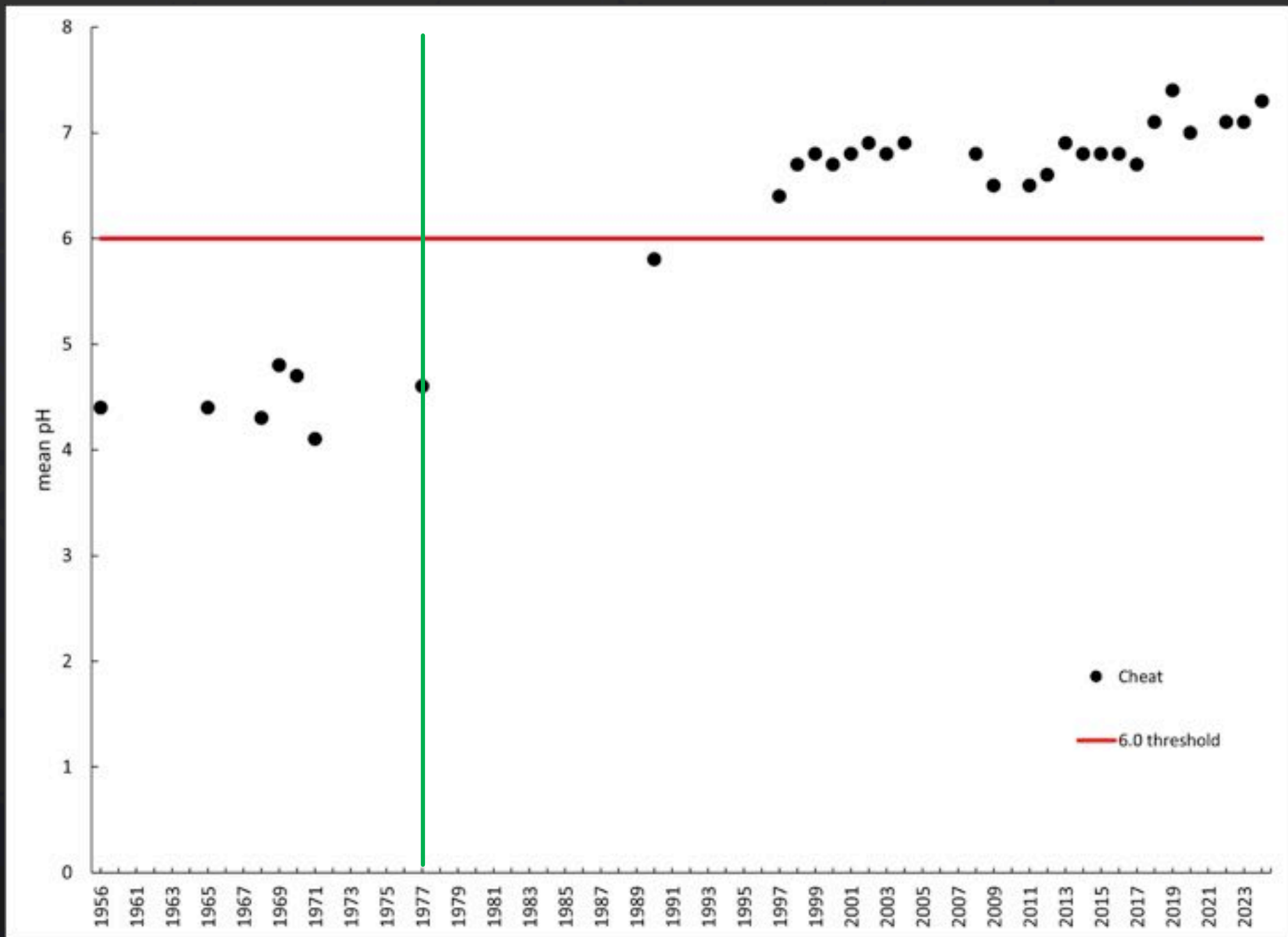
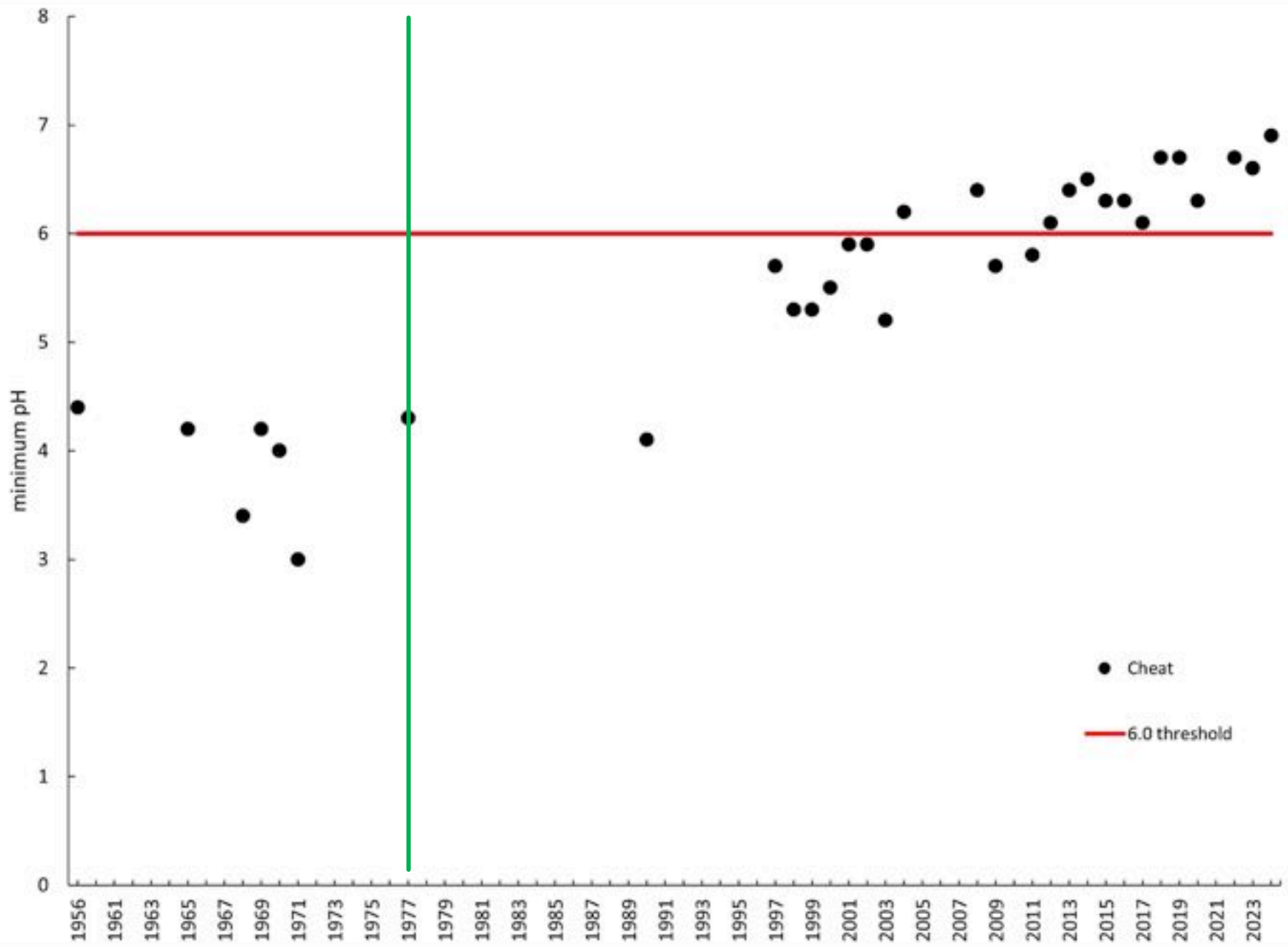


Plate from 1929
Cheat River Pollution Study
Commissioned by WV
Natural Resource Commission



Cheat Lake Mean pH – provided by WVDNR



Cheat Lake Minimum pH – provided by WVDNR



Cheat River Canyon, 1988. Photo – Ben Faulkner.

The Cheat - A Catalyst for Change



*T&T Mine Blowout into Muddy Creek
& the Cheat River, 1994*



Friends of the Cheat

- ◇ Many tributaries to the lower Cheat were rendered lifeless (Pringle, Lick, Heather, Morgan, Greens, Muddy, Bull Run) with others moderately impacted (Big/Little Sandy)
- ◇ 8 species of freshwater mussels extirpated
- ◇ pH at Cheat Lake, near the terminus of the River, <5.0, dominated by 2 pollution-tolerant fish species, bullhead catfish & white suckers
- ◇ Multiple fish kills had occurred, sensitive species extirpated from some reaches
- ◇ Friend of the Cheat is formed in 1994
- ◇ 1995 American Rivers names the Cheat one of America's "Most Endangered Rivers"



Signing of the River of Promise Cheat River Festival 1995



At right: Founding FOC E.D. Dave Bassage, OSMRE Director Bob Uram, Rick Buckley, and Dr. Paul Ziemkiewicz

CHEAT RIVER



Length 77 mi (mainstem)

157 mi (+ Shavers Fork)

Watershed 1,420 mi²

Gradient 11 fpm (mainstem)

24 fpm (+ Shavers Fork)

Flows 1913-94 (cfs)

Annual daily range

Parsons 1,712 10-70,000

Rowles 2,315 11-94,000

* Aerial tributaries

☐ River miles above mouth

Cheat Lake species

98	97	96	95
31	34	35	39

Fish Surveys

Year	River mile	Total Fish		SMB		sp.
		16/42	20/42	16/42	20/42	
1959	56	50	509	11	137	17
1973	56	27	120	5	24	14 m
1995	42	18	400	6	60	17
1999	56	58	1,980	18	289	24

Frank Jernejcic's "Geographic Information System"



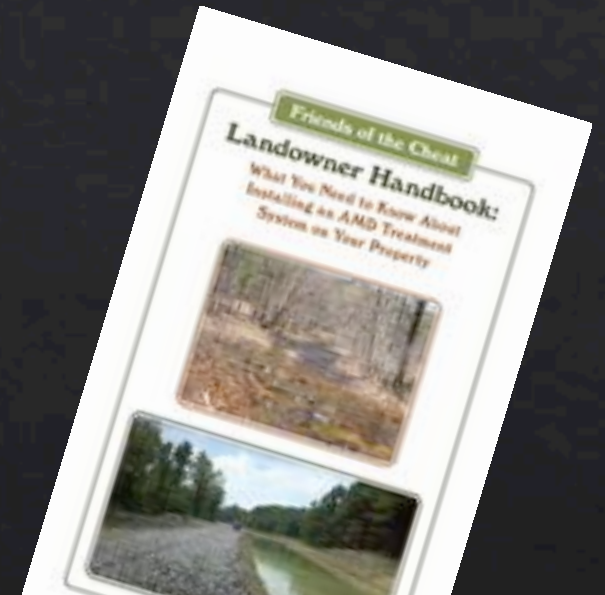
THEN & NOW...





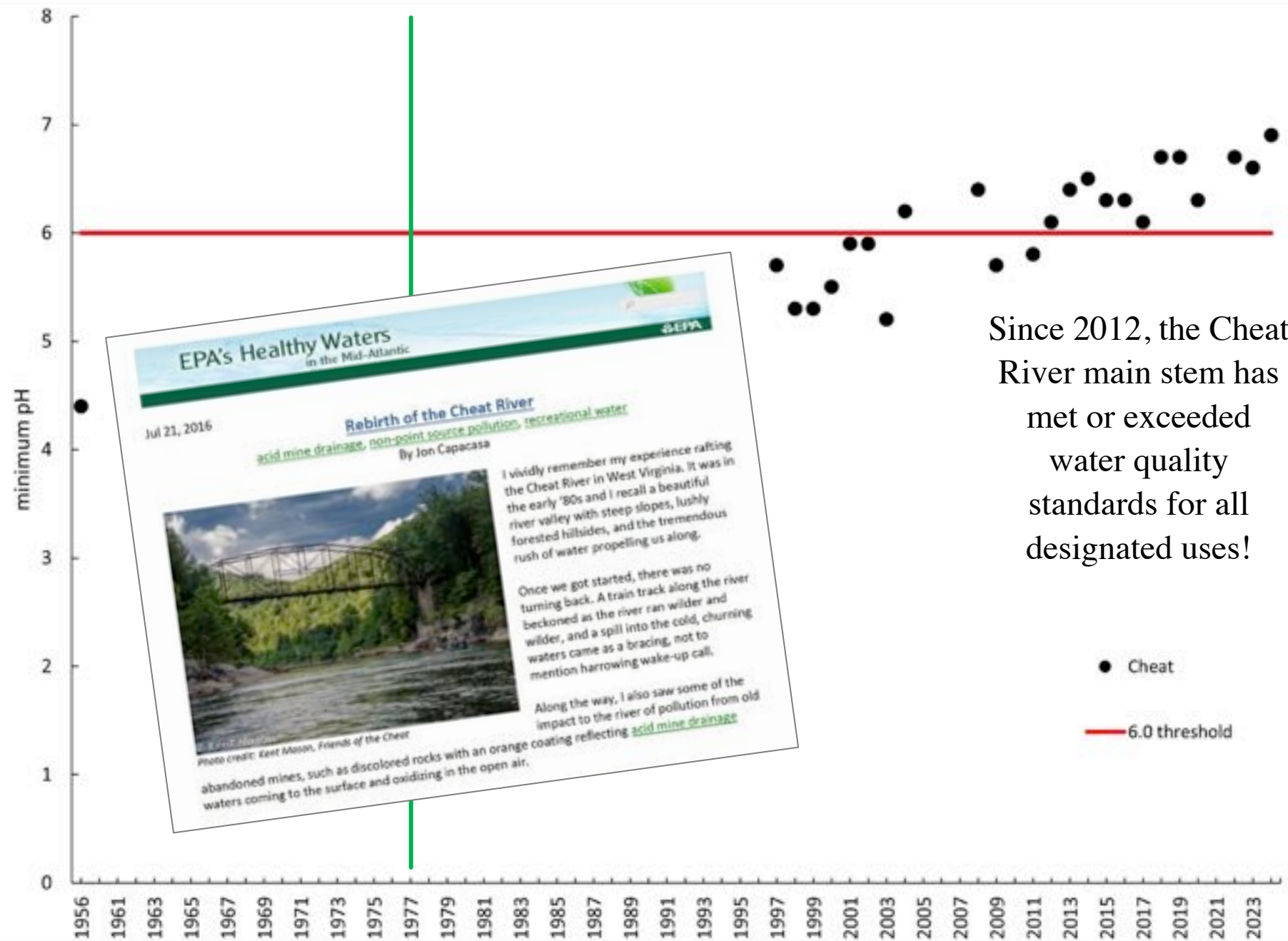
Fish collected from the North Fork of Greens Run

FOC has implemented 20 AMD treatment systems in cooperation with over 60 landowners improving water quality to the Cheat River main stem, **Big Sandy Creek**, **Sovern Run**, **North Fork Greens Run**, & Muddy Creek



PASSIVE TREATMENT CAN WORK
Know the Flows!



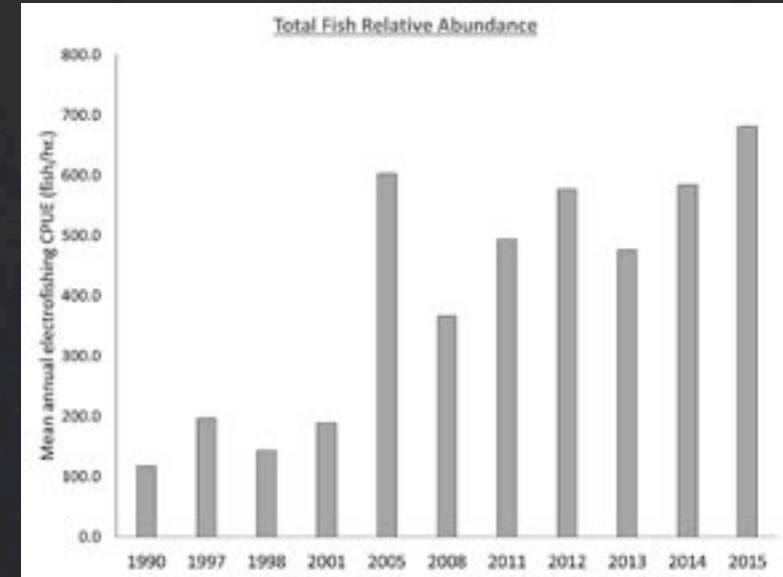


Since 2012, the Cheat River main stem has met or exceeded water quality standards for all designated uses!



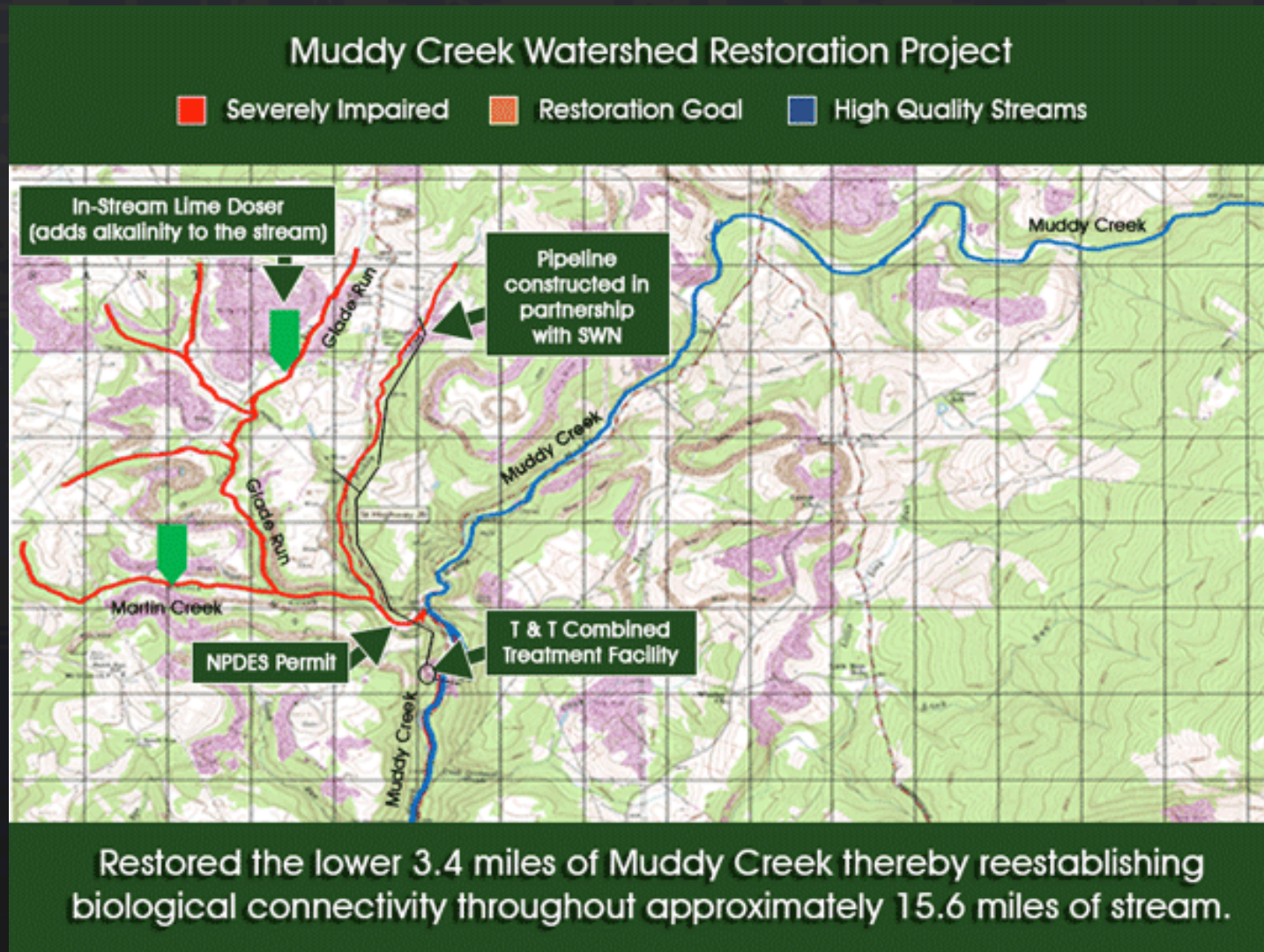
Cheat River Canyon at High Falls Rapid

Since 2011, 44 species of fish have been ID'ed in Cheat Lake! But, wait, there's more...





Muddy Creek – Much Improved, but Restored?



- ◇ The lower 3.4 miles of Muddy Creek were pledged to be restored – the data does not support
 - ◇ Fish
 - ◇ Benthics – WVSCI
 - ◇ Water Quality – permit exceedances documented
- ◇ Variances sets a bad precedent
- ◇ Sludge deposits hampering progress
- ◇ “Fast tracked” AMD from across the landscape lower in the watershed
 - ◇ Fish need clean water 365/24/7
 - ◇ Heightened importance of consistent maintenance
 - ◇ Communication between stakeholders

Muddy Creek – Highs & Lows

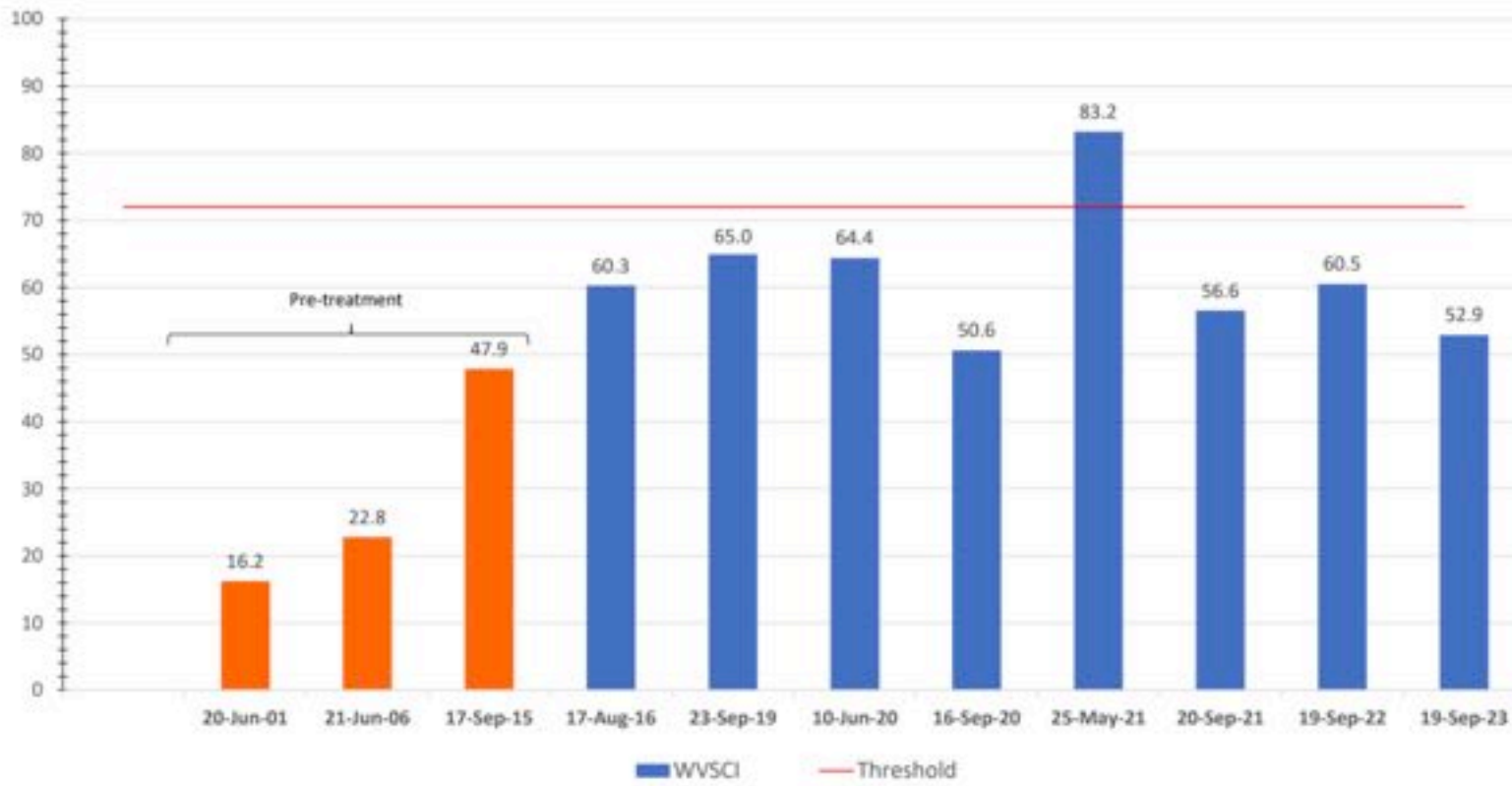


A mottled sculpin – notable find

Cheat River below Muddy Creek
March 2021



WVSCI - Muddy Creek MP 0.0 – Near Mouth
Approx 2.8 Miles Downstream of Treatment Facility
WVDEP WQSAS Data



WVSCI scores at Muddy Creek MP 0.0. June 2020 – Sept 2023. Provided by DEP WAB.

It Ain't Easy

NewSiteName	SampleDate	Mont ID	LabpH	Alkalinity	Acidity	LabConductivity	SO4	T_Al	D_Al	T_Ca	D_Ca	T_Fe	D_Fe	T_Mg
MUDDY MouTH	7/2/2024		6.3	30.9	0	817	432	0.844	0.066	125	125	0.824	0	26.9
MUDDY MOUTH	4/9/2024		6.2	0	0	415	166	2.47	0.0292	48.7	49.5	2.05	0.0794	14.4
Muddy Mouth	9/8/2023		7.64	22.2	-7.491	553	257	1.59	0	74.5	75.6	1.97	0	20.3
Muddy Mouth	8/2/2023		6.86	14	11.22	622	300	2.73	0	90.8	94.8	4.16	0	21.9
Muddy Mouth	7/25/2023		6.49	13.5	26.16	470	200	1.48	0	65.6	65.2	2.01	0	17.4
Muddy Mouth	5/11/2023		7.5	13.8	7.298	286	117	1.52	0	33.7	33.8	1.29	0	9.52
Muddy Mouth	12/15/2022		7.17	25.5	-7.767	388	150	3.84	0	48.8	46.4	3.69	0	15.8
Muddy Mouth	7/19/2022		7.66	34.9	3.666	574	245	1.05	0.134	75	76.5	0.9	0	18.8
Muddy Mouth	1/25/2022		7.39	14.9	4.2	469	208	2.8	0	63.2	65.9	1.46	0.233	17.9
Muddy Mouth	10/21/2021		6.96	28.9	-7.88	661	163	0.856	0	101	105	0.498	0	24.5
Muddy Mouth	10/8/2021		7.34	25.6	-9.57	673	317	0.734	0	99.8	98.4	0.552	0	26
Muddy Mouth	7/27/2021		6.87	26.4	6	825	391	0.704	0	126	127	0.441	0	31.3
Muddy Mouth	7/16/2021		7.77	32.9	9.45	715	349	0.908	0	114	106	0.533	0	30.4
Muddy Mouth	6/11/2021	MC-IS-13	6.55	25.5	7.14	578	265	2.08	0	98.1	89	1.01	0	25.3
Muddy Mouth	4/24/2021	MC-IS-13	7.3	17.3	2.03	561	260	2.73	0	80.4	75	0.974	0	21.1
Muddy Mouth	3/8/2021	MC-IS-13	7.46	13.2	8.34	512	230	3.24	0	70.6	71.7	3.07	0.66	19.1



19.3	0.649	0.602
18	0.64	0.636
26.1	0.91	0.925
25.9	0.805	0.795
32.7	1.04	0.994
28.1	0.949	0.878
23.4	0.786	0.707
19.7	0.845	0.782
18.7	0.703	0.655



River of Promise 25 Year "Reunion" Cheat Fest 2019

Lick Run – September 2019



*“Rebirth has begun, but there is more
work to be done!
Long live the Cheat River!”*



The Cheat River - A Source of Hope

