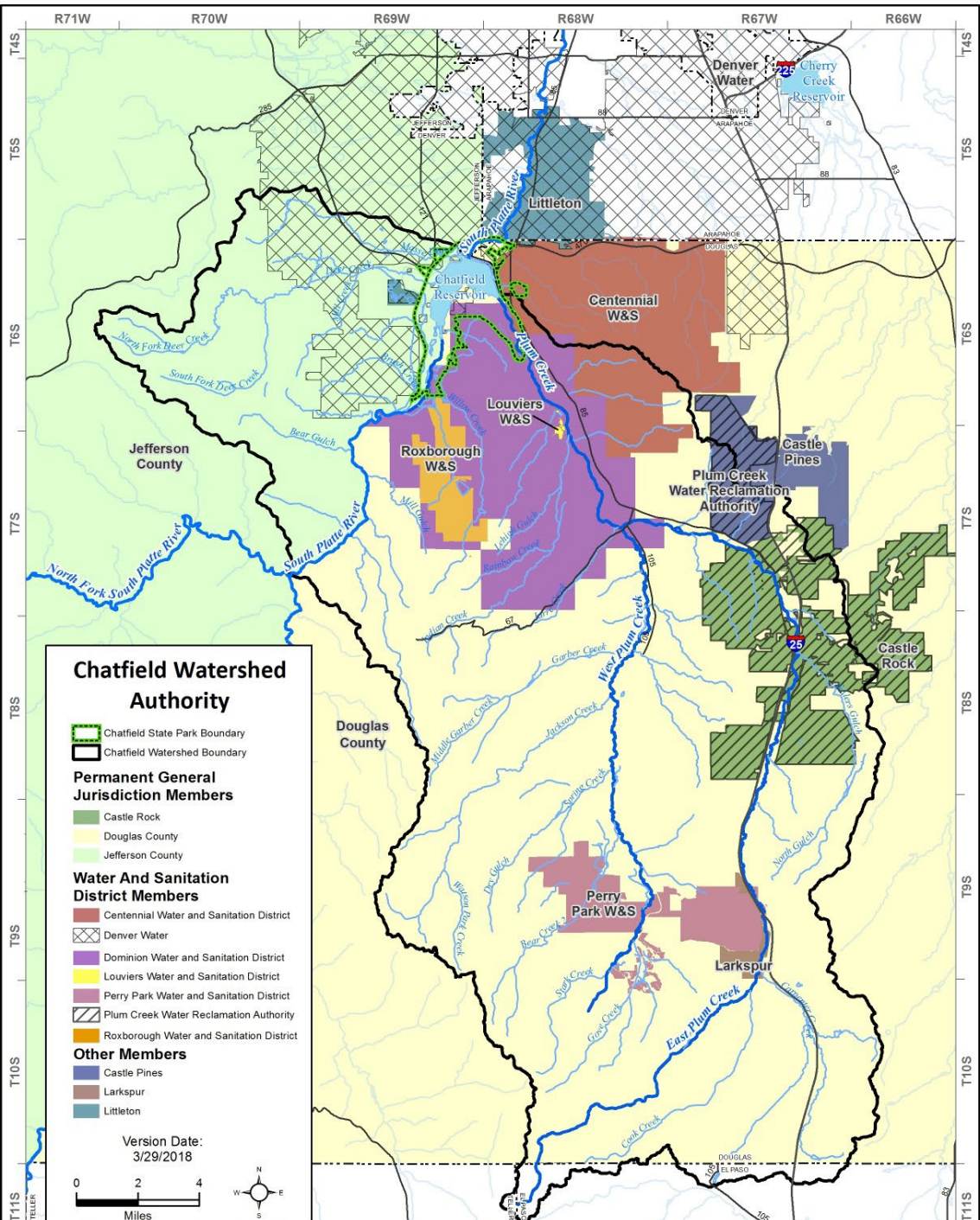


CHATFIELD WATERSHED AUTHORITY

Chatfield Watershed Authority
2018 Annual Report
Water Quality Control Commission
August 12, 2019

www.chatfieldwatershedauthority.org





Membership

3 Permanent General Jurisdiction Members:

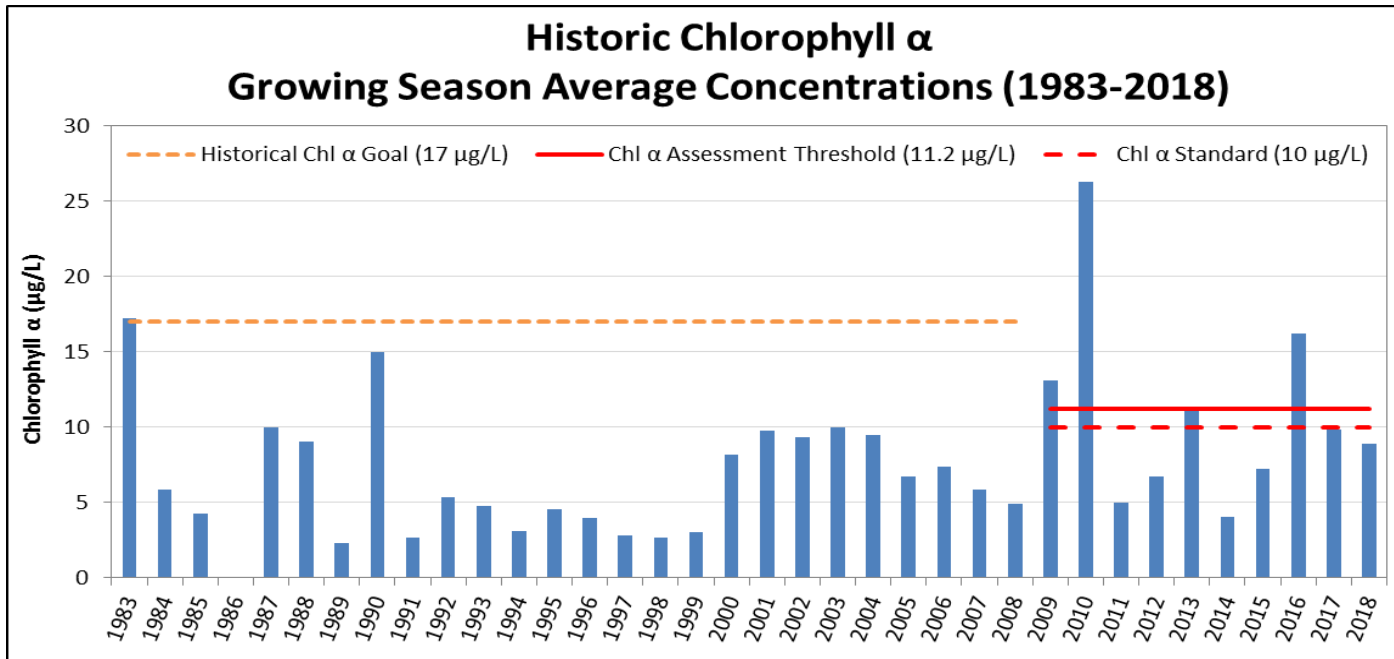
Douglas County

Jefferson County

Town of Castle Rock

7 Special District Members:

3 Agencies and NGO's

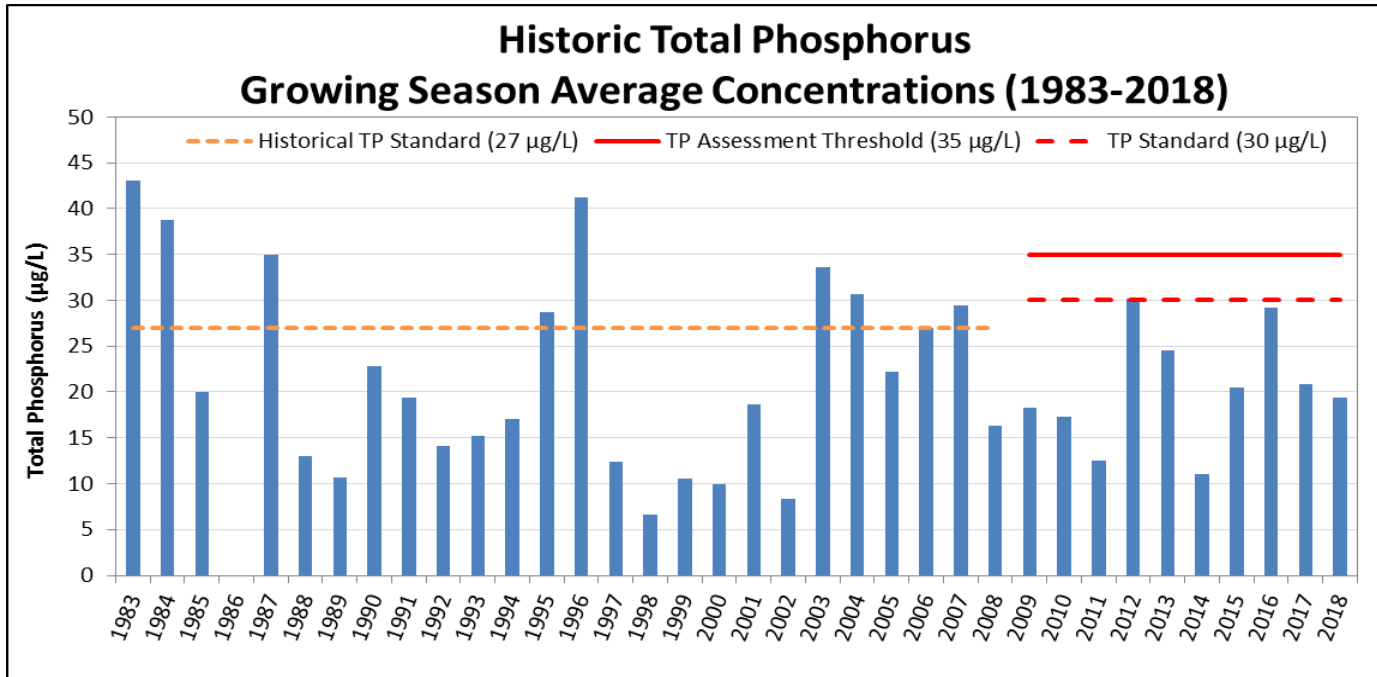


Growing Season Average Chlorophyll α Concentrations, Chatfield Reservoir, 1983-2018.

CHLOROPHYLL The chlorophyll α (chl- α) standard in the reservoir is 10 $\mu\text{g/L}$, with an allowable exceedance frequency of one time in five years. The Colorado Water Quality Control Commission (WQCC) adopted an assessment threshold of 11.2 $\mu\text{g/L}$ to be used to determine compliance with the standard. The chl- α standard is the growing season (July through September) average.

In 2018, the average was 8.9 $\mu\text{g/L}$, which is below the assessment threshold.

There has only been one exceedance in the last five years (2016); the Reservoir remains in compliance with the chlorophyll a standard.

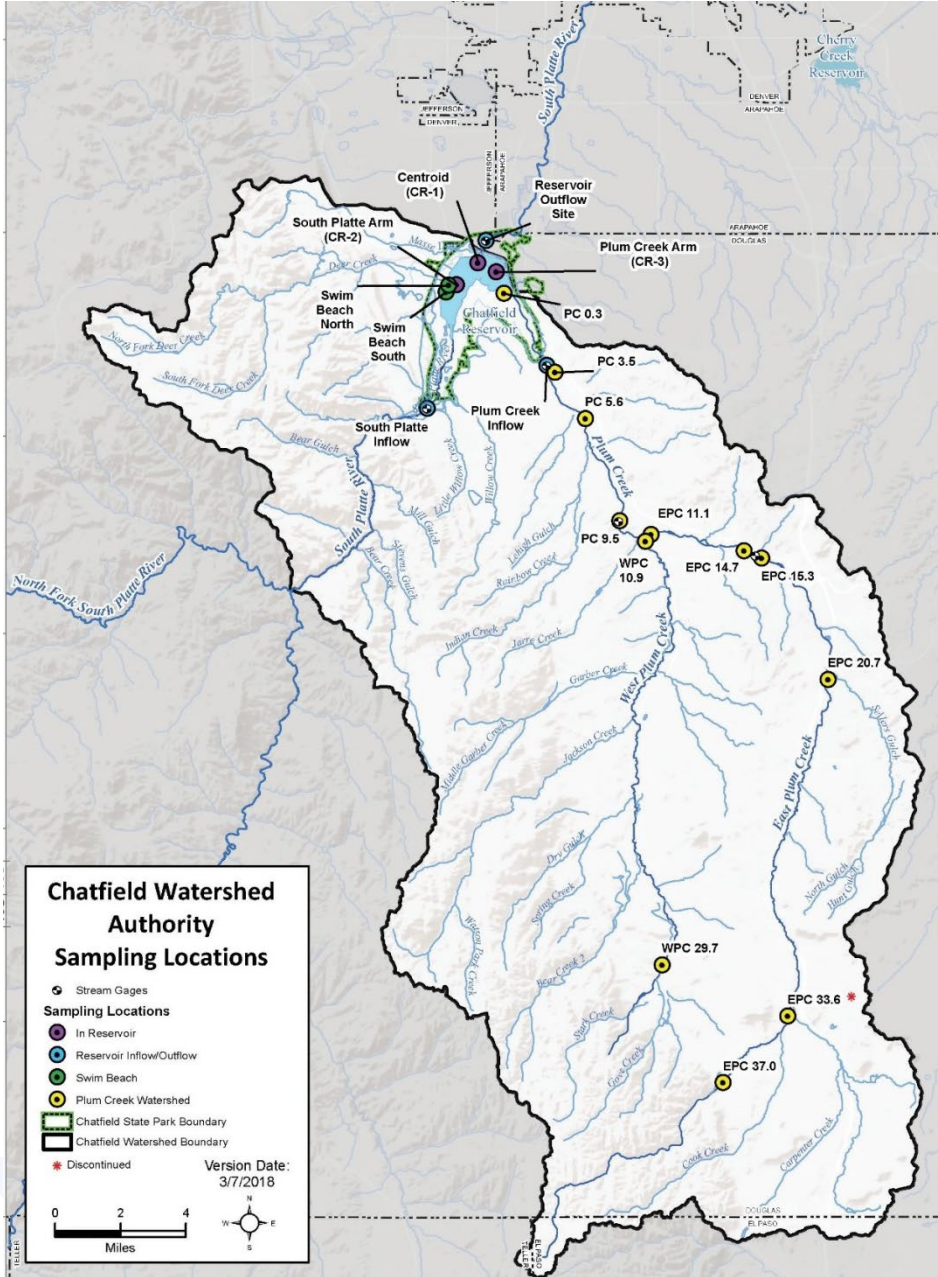


Growing Season Average Total Phosphorus Concentrations, Chatfield Reservoir, 1983-2018.

The total phosphorus (TP) growing season average was 19.4 µg/L, which is below the standard of 30 µg/L, and assessment threshold of 35 µg/L.

The TP growing season average has remained below the water quality assessment threshold of 35 µg/L since the standard changed in 2009.





AUTHORITY'S MONITORING

During the growing season (July through September), Chatfield Reservoir sampling is conducted twice monthly.

Map also shows the locations of the watershed monitoring sites.





SUMMARY

In 2018, Chatfield Reservoir was in compliance with the chlorophyll α and phosphorus standards.

2018 RESERVOIR
REGULATORY
COMPLIANCE



In compliance with Regulation chlorophyll-a standard

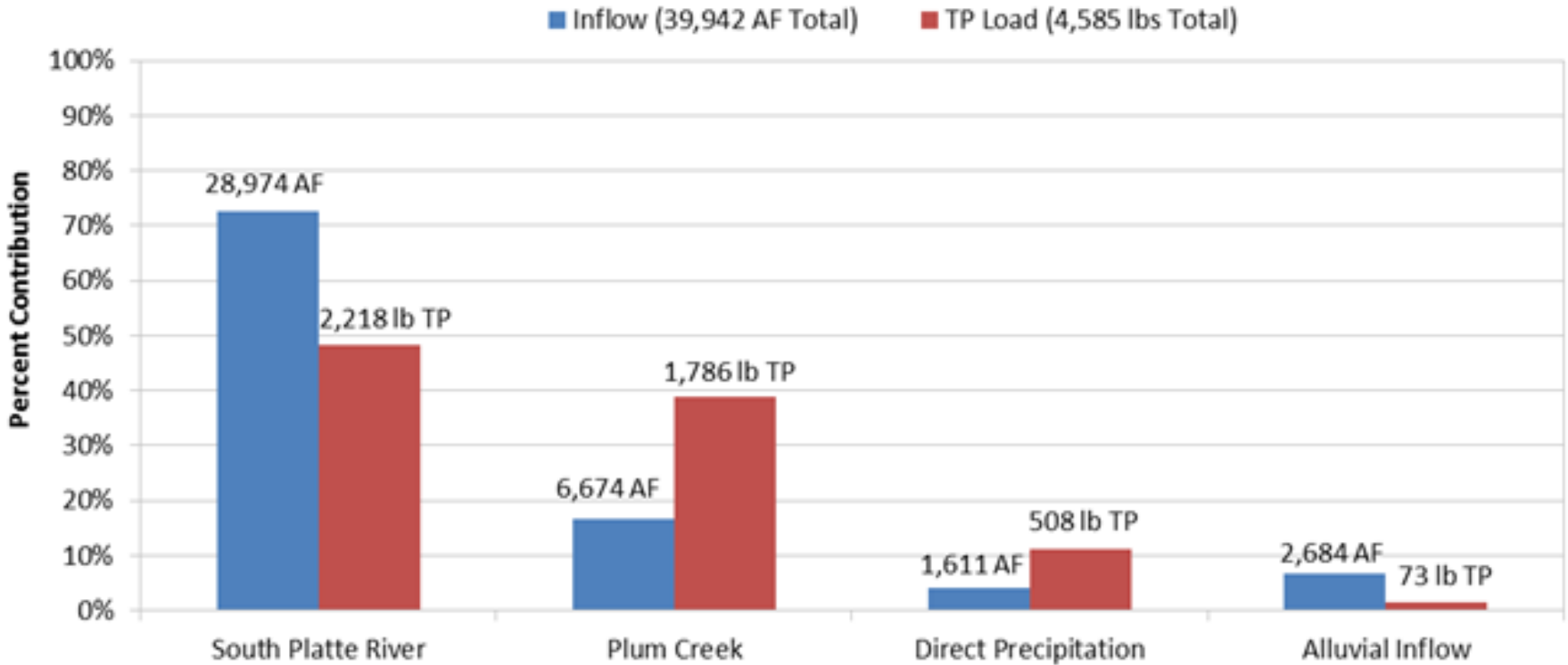


In compliance with Regulation phosphorus standard



Point sources were all below their wasteload allocations

2018 Chatfield Reservoir Inflows and Total Phosphorus Loads



2018 Comparison of Chatfield Reservoir Inflows and TP Loads



REGULATED STORMWATER SOURCES

General MS4 permits require the land use agency to develop programs to implement stormwater control measures

A summary of 2018 MS4 permit inspection and enforcement metrics are set forth in this table:

SUMMARY OF 2018 MS4 PERMIT ACTIVITIES							
LAND USE AGENCY	PERMIT NUMBER	PERMIT INSPECTION ACTIONS			PERMIT ENFORCEMENT ACTIONS		
		ILLICIT DISCHARGES	CONSTRUCTION	POST-CONSTRUCTION	ILLICIT DISCHARGES	CONSTRUCTION	POST-CONSTRUCTION
Douglas County	COR080003	8	16,192	65	0	65	19
Jefferson County	COR090024	29	4425	72	28	40	0
Town of Castle Rock	COR080012	15	5,002	295	12	1455	0
City of Littleton	COR090055	23	143	121	20	66	28



EDUCATION AND OUTREACH



Jefferson County participated in a number of public events to reach diverse audiences for their MS4 and floodplain management programs.



As part of their MS4 permit, the county maintains an erosion and sediment control program, including publishing a small-site erosion control manual that explains the basic principles of erosion control and illustrates techniques to control sediment from small development sites.

Finally, Jefferson County has an inspection program for illicit discharges, construction activities, and includes post- construction inspections.

Jefferson County



EDUCATION AND OUTREACH



Through a county Co-op program, the county has created the
“***One Thing is Clear...***
our creeks, rivers and lakes depend on you”
public awareness program.
The interactive website provides information for
Douglas County residents
on how they can work to keep pollution
out of their water ways.
Additional information on various topics
related to Stormwater and Pollution Control
can be found on Douglas County’s website.

Douglas County



EDUCATION AND OUTREACH



The Authority helped to sponsor the Town of Castle Rock's annual "*Spring Up the Creek*," a public outreach community event to preserve waterways by removing trash that collects along the stream banks.

The 2018 theme was "Think About Your Drink."

208 volunteers collected and filled 166 bags of trash and various pieces of debris.

Town of Castle Rock



NONPOINT SOURCE CONTROL PROJECTS

CHATFIELD STORAGE REALLOCATION PROJECT

Construction of the Chatfield Storage Reallocation Project (CSRP) by Chatfield Reservoir Mitigation Company (CRMC) commenced in late 2017 and will be working to complete by 2019.

The Plum Creek Environmental Mitigation Project constructed a new stream system by installing a new main channel and secondary channels, plus several riffle-drop structures, guide banks and sloughs. To revegetate the site, 54,000 native potted plants, shrubs, and trees were planted.

The South Platte Environmental Mitigation Project, located upstream of Chatfield Reservoir. The project provides regrading and stabilization work along Upper Titan Lake to repair 2015 flood damage. Also involves stream restoration along Willow Creek, plus regrading and stabilization work along South Oxbow and Cigar Lake. Revegetation efforts required the installation of more than 34,000 native potted plants, shrubs, and trees.



Aerial view of completed North Boat Ramp project



Downstream view of completed environmental migration work on Plum Creek looking toward Chatfield Reservoir





THANK YOU

www.chatfieldwatershedauthority.org

