

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# DO CHERRIES AND PLUMS MAKE FOR THE SAME FRUIT CAKE? A COMPARATIVE LOOK AT TWO SIMILAR (OR DIFFERENT) WATER BODIES

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# CHERRIES AND PLUMS?

Wild Plum	Wild Chokecherry
<i>Prunus americana</i>	<i>Padus virginiana</i>
Largest native tree fruit of Colorado	Common fruit tree along streams and forest areas
Used by settlers in jams, jellies and pies.	Used by Native Americans in trail mix and jelly, wine and even whiskey by settlers
 A photograph showing several large, round, yellowish-orange fruits hanging from a branch with green, serrated leaves. The fruits have a slightly fuzzy texture and are clustered together.	 A photograph showing a branch with many small, round, red and black fruits. The leaves are green and serrated. The fruits are clustered along the branch.

# CHERRIES AND PLUMS? CHERRY CREEK DAM

- WHEN WERE THESE DAMS BUILT ANYWAY?
  - HISTORIC FLOOD ON CHERRY CREEK IN 1933
  - CHERRY CREEK DAM CONSTRUCTED IN 1950
- I WONDER HOW CHERRY CREEK RESPONDED IN 1965?



CHERRY CREEK RESERVOIR FOLLOWING DAM CONSTRUCTION

# CHERRIES AND PLUMS? CHATFIELD DAM

- ANOTHER HISTORIC FLOOD ON PLUM CREEK IN 1965
- CHATFIELD DAM CONSTRUCTED IN 1975



CHATFIELD DAM UNDER CONSTRUCTION

# CHERRIES AND PLUMS?

## KEY CHARACTERISTIC COMPARISONS

Key Characteristics	Cherry Creek	Plum Creek (Chatfield)
Recreational Pool Volume	14,000 ac-ft	27,000 ac-ft (+20,000 more)
Recreational Pool Surface Area	850 acres	1,500 acres (+850 more)
Maximum Pool Depth	38 ft at gate (16 ft average depth)	66 ft max (19 ft average depth)
Dam Height	189 feet	147 feet
Storage Volume	135,000 ac-ft	350,000 ac-ft

# CHERRIES AND PLUMS?

## KEY CHARACTERISTIC COMPARISONS

Key Characteristics	Cherry Creek	Plum Creek (Chatfield)
Watershed Area	385 Sq. Mi.	321 Sq. Mi. (+2,700 Sq. Mi. Platte)
Residence Time	6-14 months	10-106 days
Summertime average TP	9 ug/L in 2018	94 ug/L in 2018
Annual Park Users	1.9 million in 2018	1.6 million in 2018
Annual Revenue	\$3.7 million in 2018	\$2.3 million in 2018

# CHERRIES AND PLUMS?

## DIFFERENCES IN REGULATION AND STRUCTURE

Watershed Authority Structure	Cherry Creek	Plum Creek (Chatfield)
Chl-a Standard	18 ug/L	10 ug/L
Authority Board Structure	18 member board	5 member board
Authority Revenues	\$2.6 million	\$245,000
TMAL	N/A	59,600 lbs → 19,600 lbs
TP Standard	N/A	30 ug/L




# CHERRIES AND PLUMS? CHATFIELD WATERSHED AUTHORITY


- CHATFIELD RESERVOIR CONTROL REGULATION NO. 73
  - CHL-A AND TP STANDARDS WITH A TMAL
  - NON-POINT SOURCE CONTROL MANDATE






# CHERRIES AND PLUMS? 2015 CHATFIELD WATERSHED PLAN

- FOUR MAIN SOURCES OF CONCERN FROM THE PLAN
    - EROSION FROM DEGRADED STREAMBANKS
    - LEACHATE FROM POORLY-FUNCTIONING OR UNMAINTAINED SEPTIC SYSTEMS
    - RUNOFF FROM AGRICULTURAL LANDS
    - RUNOFF FROM WILDFIRE BURN AREAS
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# CHERRIES AND PLUMS? PLUM CREEK WATERSHED MODEL

- BASED ON STREAMFLOW DATA COLLECTED AT NINE LOCATIONS THROUGHOUT THE PLUM CREEK WATERSHED
  - CALIBRATED MODEL COMPLETED USING DATA FROM SAMPLE YEARS 2001 TO 2015
  - STORM FLOW DATA STILL NEEDED
  - INITIAL MODEL RUNS EXPECTED IN 2020
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# CHERRIES AND PLUMS? CHATFIELD STORAGE REALLOCATION PROJECT

- PROVIDING 20,600 AC-FT OF WATER SUPPLY STORAGE CAPACITY
- 12 FOOT VERTICAL FLUCTUATION ZONE
- PROVIDED FOR RESERVOIR MODEL TO STUDY WATER QUALITY IMPACTS OF PROJECT
- CHATFIELD RESERVOIR MITIGATION COMPANY MAJOR PROJECTS REDUCING TP LOADING
  - PLUM CREEK MITIGATION – 7,000 LF OF STREAM STABILIZATION UPSTREAM OF RESERVOIR
  - ADAPTIVE TREE MANAGEMENT IN FLUCTUATION ZONE – REMOVAL OF DEAD GROWTH, REPLANTING AND MONITORING
  - WATER QUALITY TREATMENT AT NEW PARK FACILITIES – ON-SITE WATER QUALITY TREATMENT NOT PREVIOUSLY INCORPORATED

# PLUM CREEK ENVIRONMENTAL MITIGATION SITE



EXISTING CONDITIONS

MITIGATION IMPROVEMENTS



MULLER ENGINEERING COMPANY SMITHGROUPJJR



# CHERRIES AND PLUMS?

## QUESTIONS ABOUT HOW TO BAKE A FRUIT CAKE?

### Making Fruitcake Step by Step

1. Prepare your pans by greasing and flouring them or by lining them with greased parchment paper. When the cake batter is ready, spoon it into the prepared pans, and tap the pans on the work surface to pop any air bubbles. Arrange pecan halves, whole almonds, candied cherries, or other fruit decoratively on the cake.
2. Place cake pans on center oven rack; pans should not be touching each other. You may wish to cover fruitcakes with aluminum foil for the last half hour of baking.
3. Bake fruitcakes slowly, at a low temperature -- between 275 to 325 degrees F (135 to 165 degrees C). The cakes are dense with fruit that will release liquid during baking.
4. Test for doneness by poking a skewer or a toothpick near the cake's center. It should come out clean. With such a long baking time and with so many varieties of fruitcake, color alone won't indicate when the cake is done.
5. Cool cakes thoroughly after baking. Use a toothpick or skewer to poke holes in the cake, and sprinkle with brandy or rum if desired.
6. Wrap in liquor-dampened cheesecloth, and store in airtight containers in a cool, dark place. The fridge is fine, but don't transfer cakes to the freezer until the flavors have ripened and mellowed.
7. Check the cakes once a week. Brush the cakes with more liquor, if necessary, and then rewrap them in the damp cloth.