

RUETER-HESS RESERVOIR UPDATE: THAT “OTHER” INFLUENTIAL RESERVOIR IN THE CHERRY CREEK BASIN

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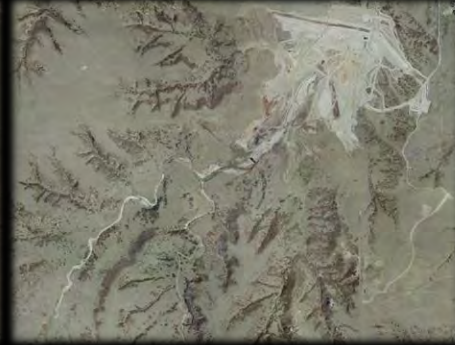
DEVELOPMENT OF RUETER-HESS RESERVOIR

~2004~

~2005~

~2006~

~2007~



~2008~

~2009~

~2010~

~2011~



~2012~

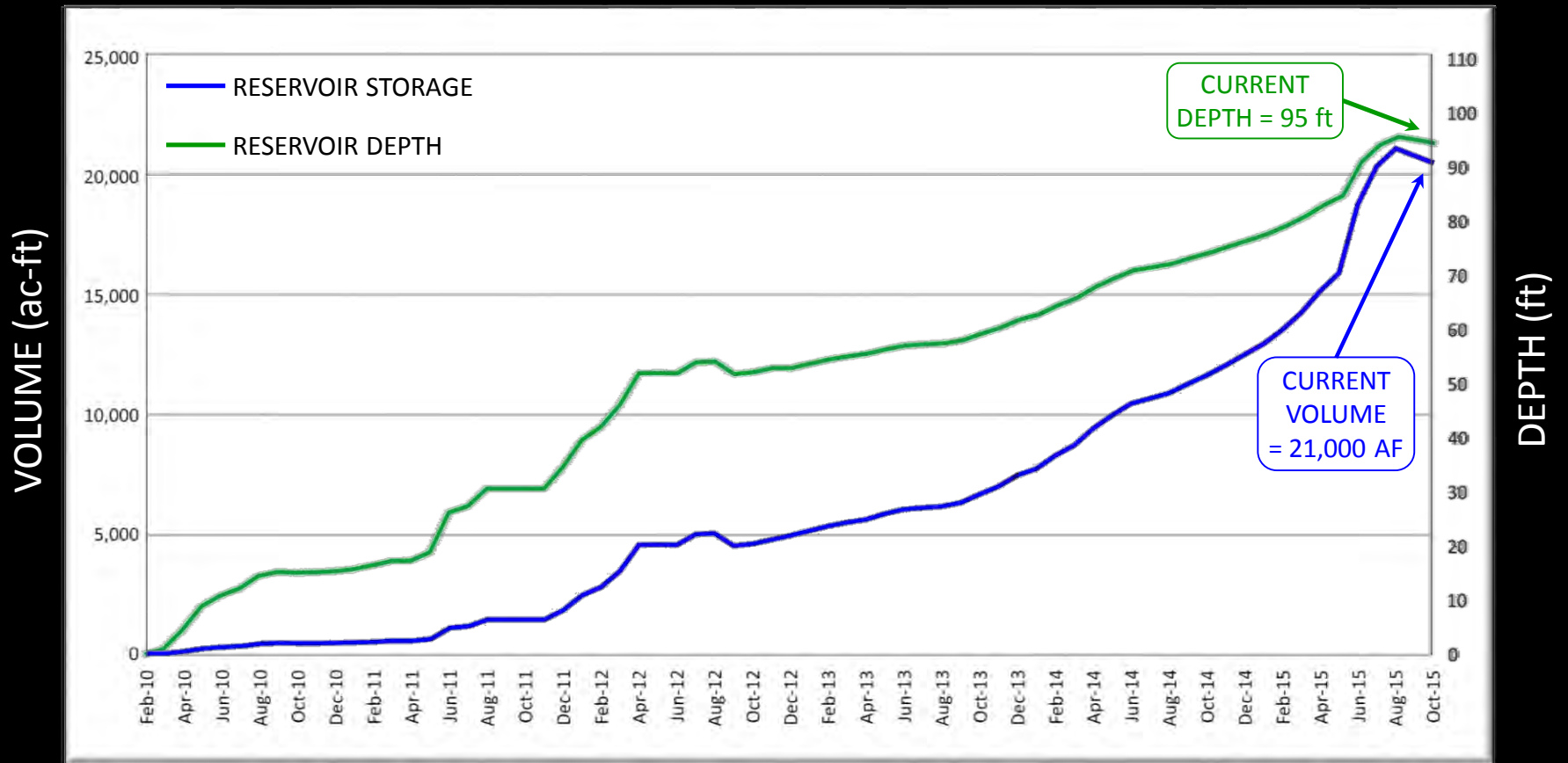
~2013~

~2014~

~At Capacity~



INFLUENTIAL ON CHERRY CREEK HYDROLOGY?



22% Reusable Return Flows

78% Native Stream Flows

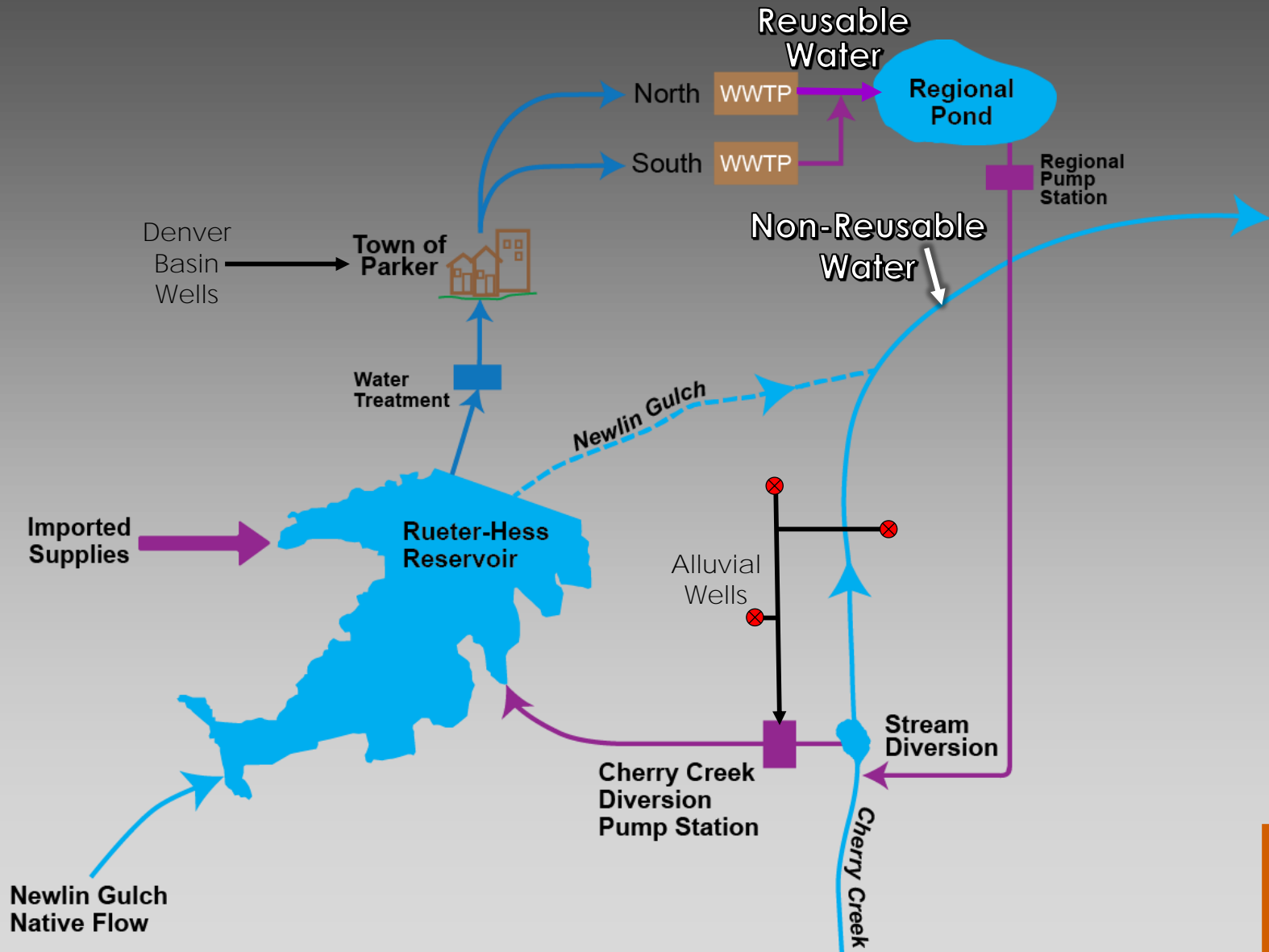
WHERE DOES THIS WATER COME FROM?



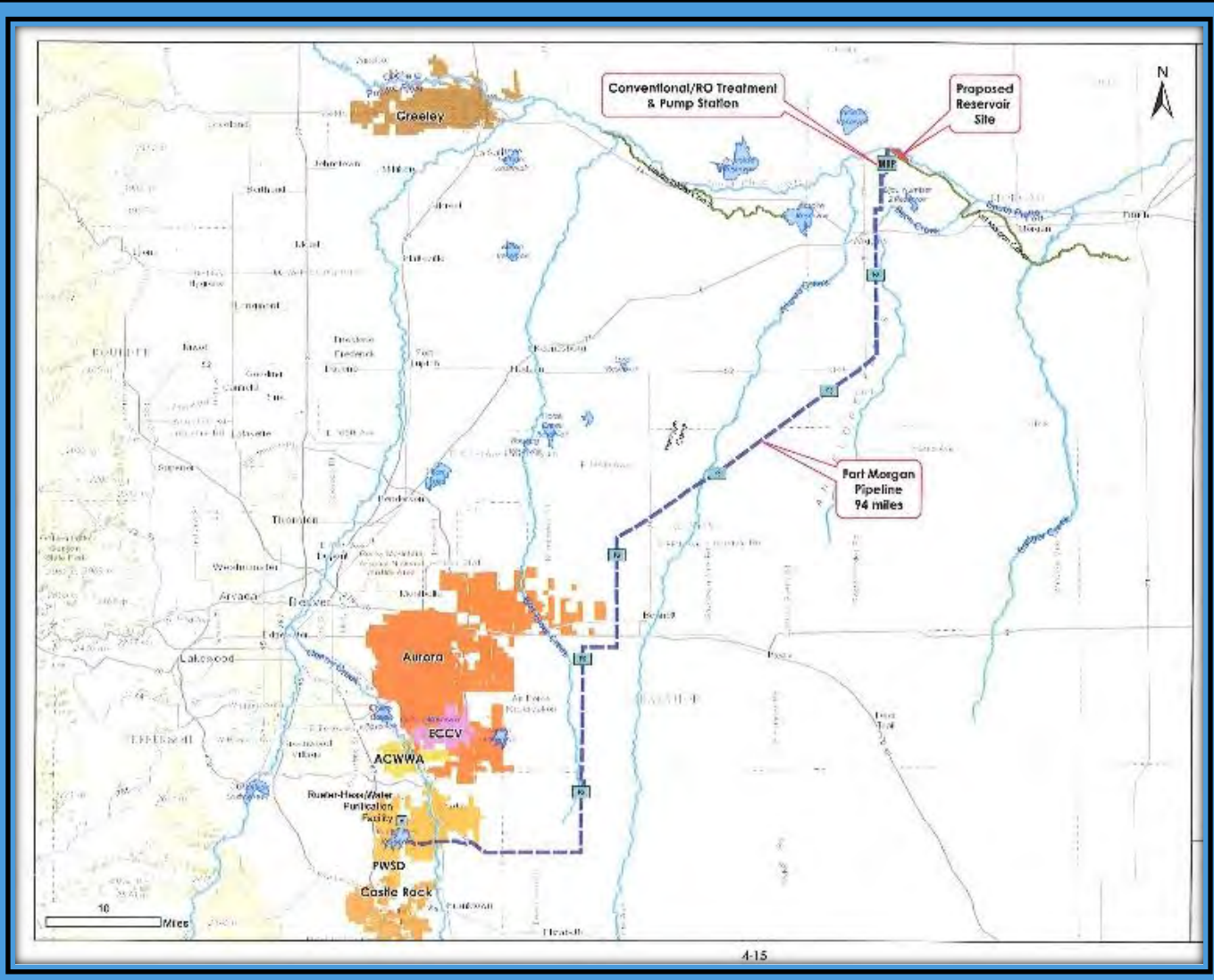
ALLUVIAL
GROUND WATER



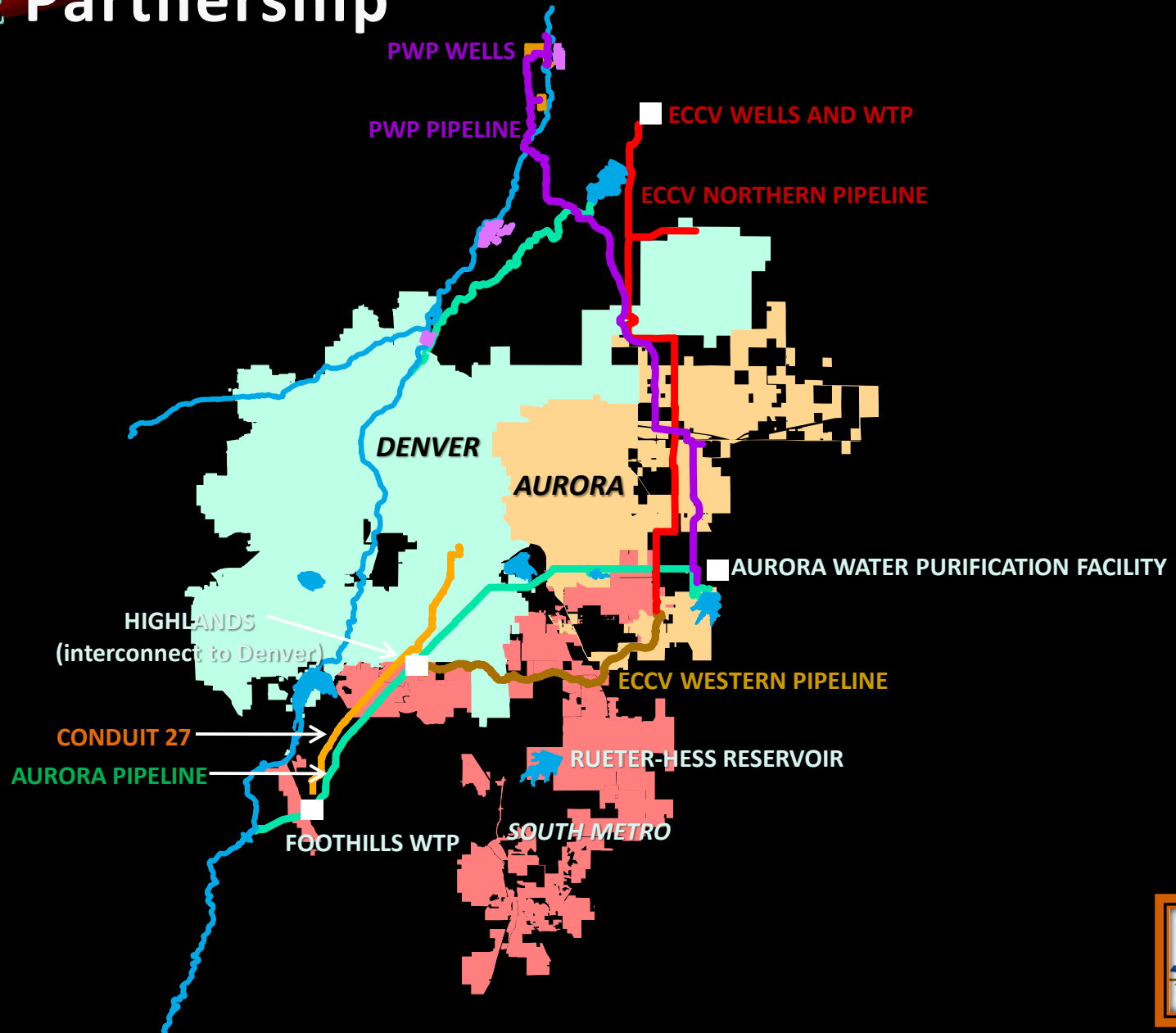
HOW DOES PWSD SYSTEM WORK?



WHAT OTHER SUPPLIES CAN BE STORED AT RHR?



WISE Partnership



WHAT OTHER ENTITIES CAN STORE IN RHR?

- CASTLE ROCK
- STONEGATE
- CASTLE PINES NORTH
- CHERRY CREEK PROJECT WATER AUTHORITY
- **WISE** PARTICIPANTS



WHAT CONDITIONS HAVE TO BE MET TO STORE IN RHR?

- ❑ 8/26/08 IGA
- ❑ WATERSHED MANAGEMENT PLAN
 - ❑ LAND USES IN NEWLIN GULCH ABOVE RHR
 - ❑ CONTROL NON-POINT SOURCES
 - ❑ MINIMIZE SEDIMENTATION
- ❑ SOURCE WATER QUALITY REQUIREMENTS



WATER QUALITY CONTROLS AT RUETER-HESS

- MEET DRINKING WATER STANDARDS (DWS)
- INDIVIDUAL SOURCES CAN EXCEED DWS BY 150%
- FLOW-WEIGHTED AVERAGE OF SOURCES HAS TO MEET DWS
- MAXIMUM TOTAL PHOSPHORUS (P) = 0.3 mg/L
- MAXIMUM TOTAL INORGANIC NITROGEN (N) = 10.0 mg/L
- ANNUAL FLOW-WEIGHTED AVERAGE: 0.05 mg/L (P)
5.0 mg/L (N)

GOALS – WILL BE RE-ASSESSED OVER TIME



WATER USE FROM RHR

- 10 MGD PLANT CAPACITY (EXPANDABLE TO 40 MGD)
- CERAMIC MEMBRANE FILTERS
- LIKELY TO BE REGIONAL PLANT
- REDUCES DEPENDENCE ON DENVER BASIN WATER



RECREATIONAL USES AT RHR

- ✓ **MASTER PLAN PROCESS (RHR RECREATION AUTHORITY)**
 - **TOWNS OF PARKER / CASTLE ROCK**
 - **CITIES OF CASTLE PINES / LONE TREE**
 - **DOUGLAS COUNTY**
- ✓ **PASSIVE RECREATION**
 - **TRAILS**
 - **SHORELINE FISHING**
 - **PICNICKING**
 - **NON-MOTORIZED BOATING**
- ✓ **FUNDINGS PROVIDED BY THE PARTNERS**



HOW DOES RUETER-HESS FIT IN REGIONALLY?

- CCAMP 2.0

PINERY	PWSD	ACWWA
CPW	STONEGATE	CASTLE ROCK
COTTONWOOD	AURORA	INVERNESS

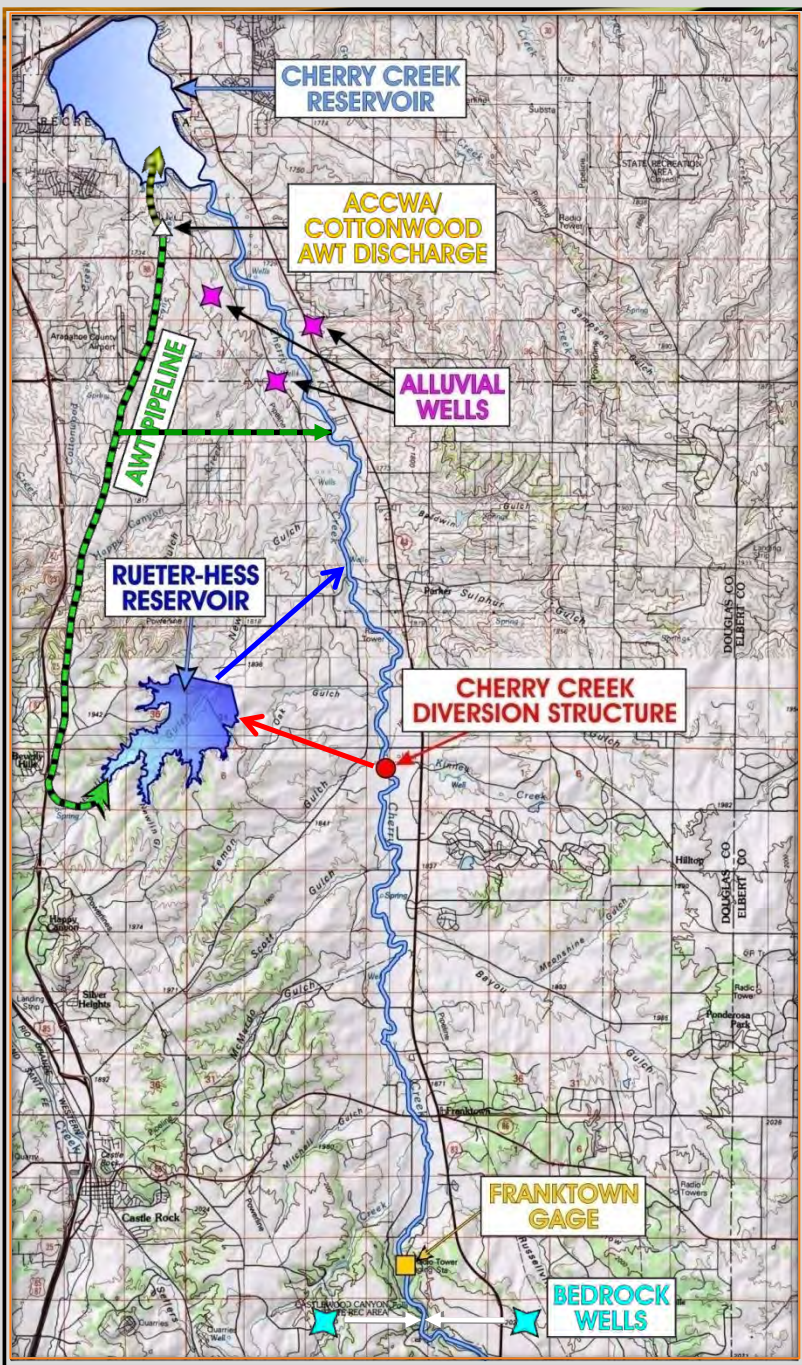


HOW DOES RUETER-HESS FIT IN REGIONALLY?

- ❖ UPDATING NUMERICAL MODEL TO SIMULATE 1941-2014
MATCHING OPERATIONAL MODEL TO SIMULATE WATER RIGHTS
- ❖ OVERALL OBJECTIVE IS TO LIMIT WATER LEAVING UPPER CHERRY CREEK BASIN
- ❖ WATER LEVELS MAINTAINED IN CHERRY CREEK RESERVOIR



WATER MANAGEMENT POSSIBILITIES



THANK YOU!

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