

# BOULDER REARING STATION FLOOD CONTROL PROJECT



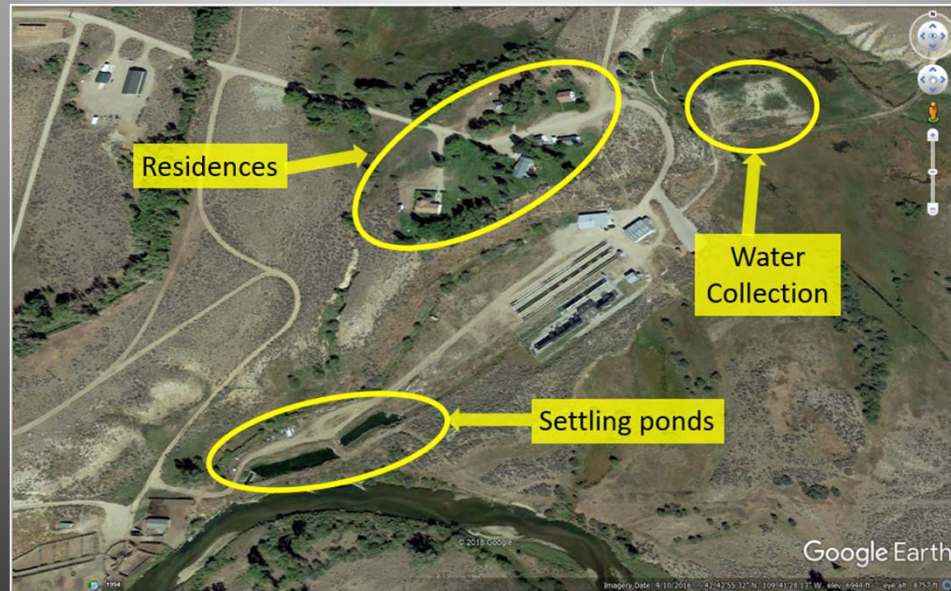
# HATCHERY INFORMATION

- OPENED OPERATIONS IN 1952
- HOME OF THE FALL RAINBOW TROUT BROODSTOCK
- RAISES AND STOCKS FALL RAINBOW TROUT, BROWN TROUT, COLORADO RIVER CUTTHROATS, AND KOKANEE SALMON
- ANNUALLY STOCKS APPROXIMATELY 350,000 FISH OR 35,000 LBS
- ALL EFFLUENT WATER FLOWS INTO THE EAST FORK RIVER

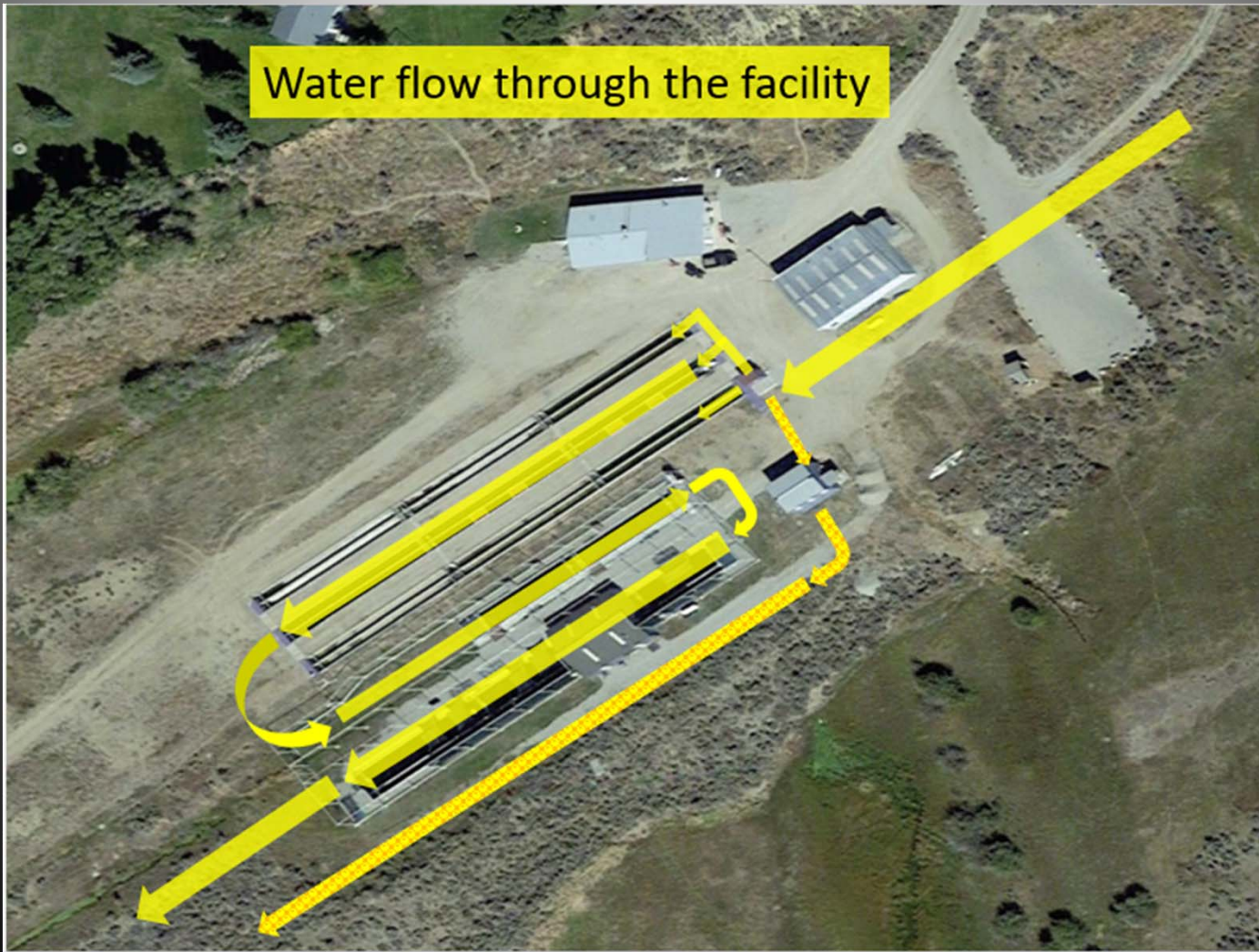
# FALL RAINBOW TROUT



# HATCHERY LAYOUT



Water flow through the facility



# PROBLEM-HATCHERY FLOODING

- HIGH WATER IN THE SPRING CAUSES RIVER WATER TO BACK INTO THE HATCHERY
- FLOODING CAUSES BIOSECURITY ISSUES
- WILD FISH CAN ENTER THE BROOD UNIT
- CONSTANT THREAT OF DISEASE INTRODUCTION
  - HAS HAPPENED TWICE RELATIVELY RECENTLY
- THE HATCHERY IS LOCATED IN THE FLOODPLAIN OF THE EAST FORK RIVER



DER REARING STATION RD

# HATCHERY FLOODS

- THE HATCHERY HAS FLOODED MULTIPLE TIMES SINCE 2005



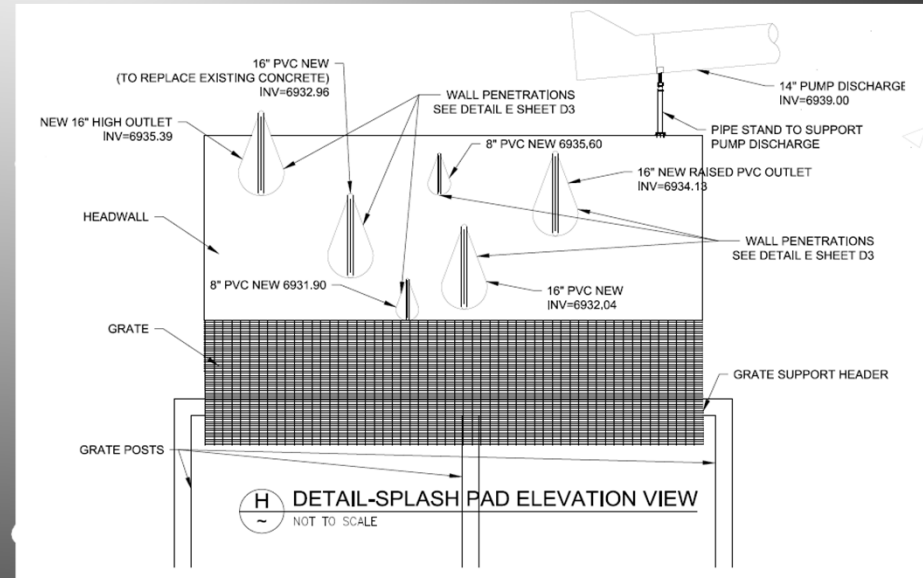


# SOLUTION

- NEW OUTLET STRUCTURE WITH PIPES
- NEW PUMPSTATION
- EXPANDED LEVEL

# NEW OUTLET STRUCTURE WITH PIPES

- NEW OUTLET HEADWALL
  - DRAINAGE AND EFFLUENT PIPES EXIT AT DIFFERENT ELEVATIONS
  - VALVES ARE UTILIZED TO PROVIDE DROP FROM THE OUTLET TO RIVER WATER
- A PERFORATED PIPE SYSTEM WAS ADDED
  - TO DRAIN GROUNDWATER FROM INSIDE THE LEVEE
- SITE WAS VERY FLAT, ELEVATIONS WERE CRUCIAL

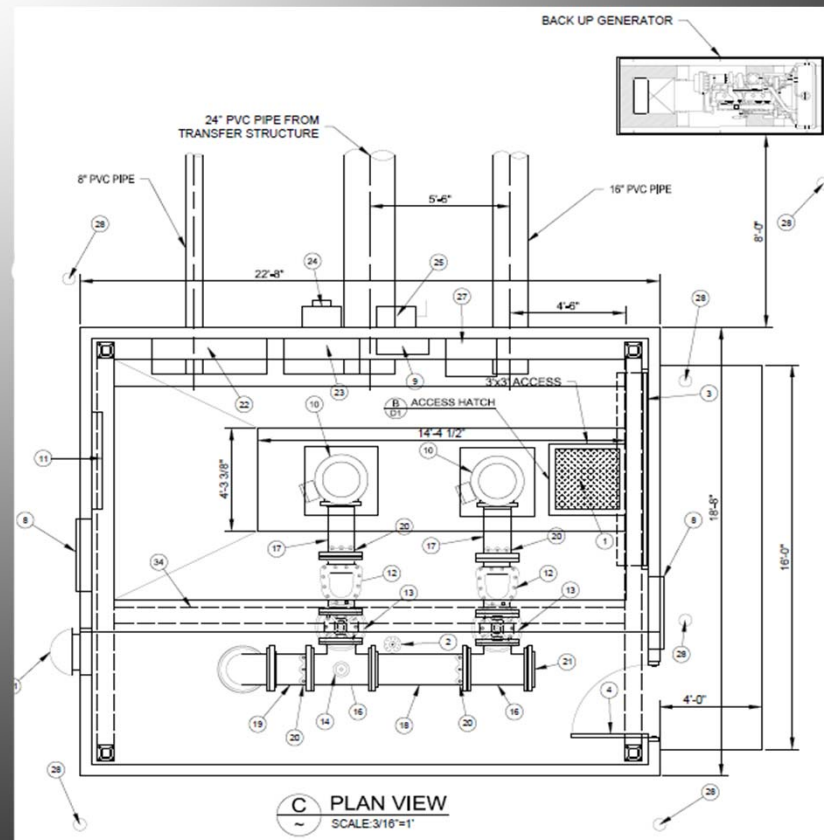


# OUTLET STRUCTURE



# PUMP STATION

- DURING HIGH WATER, THE GRAVITY DRAIN WILL NO LONGER WORK
- WATER IS NOW DIVERTED TO THE WET WELL FOR DISCHARGE
- WATER IS DISCHARGED THROUGH THE HIGHEST ELEVATION OUTLET
- 2- PUMP SYSTEM



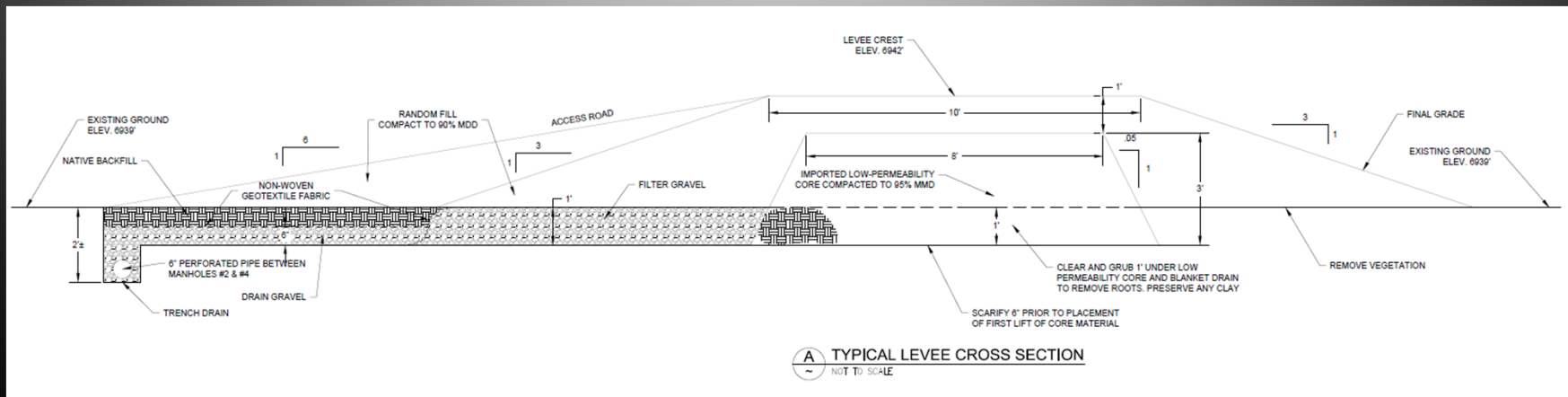


# PUMP STATION



# EXPANDED LEVEE

- CONSTRUCTED FROM HILLSIDE TO THE PUMP HOUSE
- WILL HOLD BACK RIVER WATER, ALLOWING PUMP STATION TO KEEP THE HATCHERY DRY



# EXPANDED LEVEE





# CONSTRUCTION CHALLENGES

- DEWATERING OF THE PUMP HOUSE LOCATION
- TYING NEW PIPING INTO EXISTING PIPING
- WINTER WORK
- COVID

# POWER AND COMMUNICATIONS

- SECONDARY PROJECT
- 3-PHASE POWER NEEDED ROUTED TO THE HATCHERY
- FIBER OPTIC LINES ALSO INSTALLED
- ALLOWS COMMUNICATION OF THE PUMP STATION OPERATION TO HATCHERY PERSONNEL

# ACKNOWLEDGEMENTS

- SUNRISE ENGINEERING FOR DESIGN AND CONSTRUCTION OVERSIGHT
- PREMIER SITE DEVELOPMENT FOR CONSTRUCTION
- BOULDER REARING STATION PERSONNEL FOR THEIR ASSISTANCE

# QUESTIONS



06/23/2021