CONSTRUCTION SEQUENCE
For the Proposed Action to Develop Spring #3 in Cow Canyon
Ashley National Forest, Duchesne/Roosevelt Ranger District
Duchesne County, Utah

1. Prepare Staging Area

a. Staging area to be set up on East side of Yellowstone River just outside of flood plane within the Water District's pipeline right-of-way.

b. Access to the staging area will be along Forest Service Road #124 and existing dirt jeep trail to pipeline right-of-way.

c. All refueling of equipment will take place at the staging area under the following conditions.

   i. Tracked equipment will be refueled from contractor provided re-fueling trucks.

   ii. The only refueling on-site will be for the tracked equipment that cannot be transported back to commercial fuel stations.

   iii. Only two pieces of tracked equipment are expected (excavator and traxcavator or tracked dump truck).

   iv. The excavator is expected to need at most one re-fueling and would walk out to the staging area to do so. The Traxcavator or tracked dump truck will be hauling materials from the staging area to the spring and can refuel as needed.

   v. No separate fuel tanks will be stored on-site at the staging area or spring.

   vi. Fuel absorbent pads will be placed under all equipment during refueling operations.

d. The following material will be stored at the staging area.

   i. Washed gravel for spring collection area

   ii. Pipe and fittings

   iii. Geotextile material.

e. Stockpile areas will be cleared of debris and vegetation and will be minimized to limit restoration after removal.

f. Preparing the staging area is expected to take one day.

2. Move equipment to Spring site

a. Video or photograph access alignment and spring area for reference in restoration work.

b. Clear debris from access alignment.

c. Excavate equipment access on west side of river following existing pipeline alignment and previously disturbed areas. This excavation will stay on the uphill side to minimize effects to the flood plane and riparian areas.

d. Minimize contact with wet areas to limit disturbance.

e. Moving equipment to spring site is expected to take one day.

3. Construct Replacement Pond and Wetland Mitigation Areas

a. Install silt fence and straw bales downstream from construction.

b. Clear borrow area of all debris and vegetation. Stockpile this material for use in restoration.
c. Collect and pipe spring flow around construction area.
d. Clear new pond and embankment site of all debris and vegetation. Stockpile this material for use in restoration.
e. Use clay material from identified borrow area and local rip rap for pond embankment and overflow construction.
f. Install pipe and bedding sand in pond for bubbling action.
g. Return spring flow to normal channel to test pond function.
h. Constructing replacement pond and wetland is expected to take two days.

4. Develop Spring #3 Source Flows

a. Excavate Spring area and line the new pond with excavated material to "seed" the new pond.
b. Excess material to be stockpiled and used for restoration activities.
c. Install Spring collection rock, Clay dam and collection piping
d. Install spring collection box and connect to distribution and overflow piping.
e. Developing spring is expected to take two days.

5. Restore Disturbed areas

a. Stockpiled material from borrow area to be spread and graded to a maximum 2:1 slope. Drainage will be directed toward wetlands.
b. Excess stockpiled material from new pond construction and existing pond excavation to be used in "seeding" created wetlands.
c. Remove all equipment to staging area and restore access routes as the equipment is withdrawn.
d. Equipment access route to be scarified if needed and re-seeded with Forest Service approved seed mix.
e. Excavated Access route next to river to be re-graded to previous slope and re-seeded.
f. Trees and debris removed from the access route to be scattered again as equipment is moved out.
g. Rocks in the river channel to be restored to original location as much as possible.
h. All equipment to be removed from staging area, stockpiled material scattered across area, and disturbed areas scarified and re-seeded with Forest Service approved seed mix.
i. Restoring disturbed areas is expected to take two days.

6. Monitor Wetlands and Pond.

a. The Water District will hire a wetlands expert to visit the site once a year for a period of 5 years or until wetlands are firmly established. After this period the wetlands expert will visit the site every time the Forest Service special use permit is up for renewal.
b. The wetlands expert will provide an evaluation to the Water District on how the wetlands are progressing and recommendations on how to remedy any potential problems. This report will include photos and will be forwarded to the Forest Service.