



# Upper Colorado River Endangered Fish Recovery Program

Dated: October 17, 2014

## DRAFT Summary Energy and Endangered Fish Meeting October 15, 2014

[Hilton Garden Inn DIA](#), 16475 East 40th Circle, Aurora, Colorado, 80011, 303/371-9393

### CONVENE: 10:00 a.m.

1. Introductions, modify/review agenda, discuss purpose/goals – Tom Chart introduced the meeting, the purpose of which is to begin discussions among the Upper Colorado River Endangered Fish Recovery Program Director's office, State Program representatives, and Upper Basin State oil and gas representatives about program / agency goals and operating procedures related to energy development in and near endangered fish critical habitat. The Program is interested in learning from the group what environmental protections are in place, especially for floodplain habitats, and in finding ways of reducing risk.
2. Recovery Program Overview – Tom Chart gave an overview of the Recovery Program and discussed the importance of water quality in main channel and floodplain endangered fish habitat. (Another handy overview document for reference is the [Program's annual Highlights report](#).)
  - Recovery Program partnership established in 1988 with the purpose of recovering the endangered fishes while water development proceeds in compliance with all applicable Federal and State laws. The Program provides Endangered Species Act (ESA) compliance for federal, tribal, state and private existing and new water projects throughout the Colorado River Basin above Lake Powell.
  - Recovery activities include habitat (flow) management, habitat restoration (fish passages, fish screens, and floodplain restoration), nonnative fish control, stocking endangered fish, and conducting research & monitoring.
  - Endangered fish ecology and risks from spills. Three discrete reaches for Colorado pikeminnow spawning (early summer): Grand Valley of the Colorado River, in the lower Yampa River in Colorado, and near Desolation/Gray Canyons of the Green River. Subsequently, early life stages then drift into low velocity / backwater habitats like the mouths of washes and tributaries. Humpback chub are found in canyon-bound river reaches (~100 miles total in five discrete locations). As we've reestablished razorback sucker populations, we're seeing more widespread spawning, but these fish also are uniquely reliant on floodplain habitat. Greatest risk of spills would be to wild populations of Colorado pikeminnow and humpback chub) and could result in serious setbacks to recovery.
  - Importance of floodplain habitats to recovery. Floodplains provide warm, nutrient-rich habitat for endangered fish during spring runoff.
  - Recovery Program concerns in and near the floodplain include:
    - Surface disturbance (soil compaction for roads and well pad favor nonnative vegetative recolonization, leveling topography eliminates micro-flow refuges during inundation, roads can cause unnatural drainage – trapping young fish, increases turbidity during periods of inundation.

- Spills (total oil concentrations of 1.7 to 4.5 mg/L caused mortality of 50% or more of Colorado pikeminnow within 48 hours, small, single doses of PAHs have caused tumor growth in fish and is worse with increased UV light, drill bit cuttings and produced water [at least high salinity – Colorado pikeminnow toxicity at 13ppt, and condensate – potentially more toxic to endangered fish than produced water], contaminants can persist in soils or shallow groundwater if the accident occurs during low water conditions, and contaminants reaching main channel via shallow water aquifer, when river is in baseflow condition could result in higher concentrations and affect early life stages of other endangered fish).
  - In closing: we all benefit from a successful Recovery Program; a spill that reaches the main channel could set the Program back 10-15 years; floodplain habitats are vitally important to the recovery of the endangered fish; energy development in and near the floodplain has occurred / is occurring, and spill incidents do occur (e.g., Yampa River 1989; recent reports of fish kills in the White River, Memorial Day 2014 Lower Green River); we are not too late to be talking about PREVENTION.
3. Current ESA Section 7 requirements – Tom Chart continued with an overview of water depletion requirements, restriction of wells in the floodplain, emergency shutoff valves in and near critical habitat, and spill response (EPA coordination). When a proposed project has a Federal nexus, the U.S. Fish and Wildlife Service has been able to push for: directional drilling, moving well pads out of 100-yr floodplain, closed loop drilling systems, locating storage tanks outside of critical habitat, and, auto shut-off valves on cross channel pipelines. What more should they be doing? Certainly, not all energy companies are the same. Projects on Tribal lands are another question. And are there options for swapping leases in the floodplain for areas further removed?
  4. Current aquatic environmental considerations/SOPs for energy development – Overview of existing environmental considerations / SOPs when permitting energy development in areas that could affect endangered fish critical habitat.
    - Colorado – Greg Deranleau outlined the Colorado Oil and Gas Conservation Commission’s (COGCC) permitting process. COGCC’s mission is to foster responsible, balanced development, production, and utilization of the natural resources of oil and gas in Colorado in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources. Legislation/rules overhauled in 2007 established the oil and gas location assessment (OGLA) process by which each proposed location is reviewed by an Environmental Protection Specialist and review for environmental, public health & safety, and wildlife concerns). The legislation/rules provided for formalized consultation with Colorado Parks and Wildlife (CPW) and provided for specific protections of surface water. CPW has provided sensitive wildlife habitat (SWH) information which is overlaid on [COGCC’s “COGIS” maps](#) (with downloadable shapefiles) so that operators can see sensitive habitats in/near where they are considering a project. Most proposed drill sites in western Colorado are SWH or Restricted Surface Occupancy (RSO) areas, and so require consultation with CPW. Dave Kubeczko noted that a number of operators (mostly in the northwest) have opted to enter into wildlife mitigation plans with CPW, and these ultimately streamline approvals. Greg outlined the example of permitting within cutthroat trout RSO areas. Greg outlined Colorado’s spill reporting requirements: any spill that impacts or threatens to impact surface water, any spill > 1 barrel outside containment, and any spill >5 barrels. Certainly, spills do occur, they’re a fraction of 1% of oil produced each year, but the

amount spilled is nonetheless significant (e.g., 3,907 barrels of oil spilled in 2013).

Dave Kubeczko reviewed examples of permitted O&G wells in cutthroat trout RSO locations on Parachute Creek and outlined the wildlife best management practices (BMPs) and mitigation (Conditions of Approval or COAs) for aquatic resources near Encana's East Middle Fork operations.

Angela Kantola asked if Federally endangered and threatened species habitats might be being overlooked in the case of projects with no Federal nexus (and therefore no Endangered Species Act consultation). Greg said that with regard to Federally listed species, the State alerts the operator, but doesn't do enforcement with regard to those species because they don't have regulatory authority<sup>1</sup>. The State also works closely with BLM and USFS. Dave said he's invited to just about every BLM and USFS onsite review (probably a hundred a year or more). Tom Chart wondered if CPW has highlighted habitats of sympatric, but not Federally listed species of concern (roundtail chub, bluehead sucker, and flannelmouth sucker). Tom Chart asked about restrictions in the floodplains, Greg said there are no specific exclusions for the floodplain and considerable oil, and gas development on private lands occurs in the floodplain because landowners can't necessarily use these areas otherwise.

For inspections, Greg said Colorado has eight inspectors and two supervisors in the field overseen by a QA specialist. They also have environmental protection specialists (four on the west slope) in the field.

In summary, Greg said COGCC rules and processes are providing effective protection of surface water through the Oil and Gas Location Assessment (OGLA) program (COGCC-CPW consultation, Form 2A permit process & COAs, spill reporting & remediation, and inspections). Every well drilled in Colorado must have a State permit, with the exception of Tribal wells (and Form 2 information is submitted for those wells and they are recorded). Ted asked about percent of wells on Federal versus private lands; Dave said he thinks well locations are about 30% on Federal lands.

- Wyoming – Tom Kropatsch said Wyoming is focusing on groundwater and sage grouse, but doesn't have much surface water regulation. Sage grouse is the only species for which they apply additional oil and gas regulations. Any new development does have to remain 350' from surface water (same as for structures). BLM has the majority of jurisdiction in the Green River Basin. As in Colorado, drilling on private land tends to be concentrated in floodplain areas. Viewsheds and archeological sites are other areas of protection. Spill reporting and electronic reporting are in place, similar to what Colorado described. Any spill report received by Federal agencies has to be reported to the State, also (and every spill of any size must be recorded in the operator's database). About half of the wells in Wyoming are on Federal lands. Inspectors are responsible for all facets of inspection (rather than some responsible only for natural resources, for example). Wyoming has begun conducting "pre-sites" prior to issuing drilling and pit permits, with

---

<sup>1</sup> Program Director's Office note: this apparent distinction might warrant additional discussion since: 1) all four of the Federally-listed fish also are the [State Threatened and Endangered Species List](#); 2) the State also is a signatory to the [Upper Colorado River Endangered Fish Recovery Program Cooperative Agreement and its extensions](#); 3) there is considerable precedent of numerous State activity to protect and recover these fishes as part of the Recovery Program (e.g., instream flow filings, nonnative fish management regulations and actions, production of endangered fish by the State in its J. W. Mumma Native Aquatic Species Restoration Facility, and more).

a focus on surface structures and groundwater. Once a spill occurs that impacts surface or groundwater, Wyoming's DEQ assumes responsibility (sometimes with a transition period, however).

With regard to sage grouse, they've increased coordination with Wyoming Game and Fish (WG&F), though this is still filtering down to the inspector level. Most WG&F input goes through BLM. Henry asked if produced water discharge into dry washes is still a concern. Tom said coalbed methane production is declining in Wyoming at this point. Tom Chart asked about well permits and Tom Kropatsch said every well requires a state permit. Many wells are dual permitted now due to horizontal drilling. Tom Kropatsch, Greg, and Dave emphasized that different BLM offices interpret rules differently. Tom Chart asked about the Little Snake drainage and Tom Kropatsch said there's been some coalbed methane production, but some additional development may be expected. Henry asked about directional drilling and Tom Kropatsch said most areas in Wyoming are not single-well any more. With regard to Ted Kowalski's question about spills, Tom Kropatsch said he thinks spills in Wyoming are similar, perhaps slightly higher, to Colorado.

- Utah – John Rogers said Utah has no specific oil and gas rules for wildlife, though some may develop for sage grouse. With regard to wildlife, Utah focuses on avoidance, reducing impact, or mitigating where possible. Every well in Utah must have a pre-site analysis, and the site inspectors are given a lot of leeway to decide what's needed. Utah does have a program of energy biologists that work for UDWR and participate in pre-site analysis where there are wildlife concerns. Utah has only six inspectors and is working to develop a risk-based analysis and identify things/areas of highest risk (e.g. proximity to water, proximity to population, age of well, operator reputation, etc.) with the goal of identifying what wells need to be inspected more often. All of Utah's inspectors also are prepared to respond to spills (at an initial level, anyway). Utah has been pushing back against recent operator interest in placing wells in the Duchesne River floodplain, recommending moving the pad out of the floodplain and doing directional drilling. However, this can interfere with surface owner operations (e.g. pivot irrigation). Utah has about 15,000 wells, mostly in the Uintah Basin and Four Corners areas. Utah also has an online map that shows where wells are, what they're producing, etc.

5. Case Studies: a) Thurston Energy where some floodplain sites were withdrawn after conversation; b) Lamb property and coordination between agencies where appropriate permits weren't in place; c) 2014 Oil Spill at Salt Wash on the lower Green River which might have been avoided with better management (Henry noted it would be good to meet with BLM and discuss how this could be handled in the future). Tom Chart said EPA has identified the Green River as a contingency response area. These are important case studies to learn from, but Tom Chart said he'd like to focus most heavily on prevention.

6. Improving coordination to minimize impacts of energy development in and near endangered fish habitat –

Any GIS layers that USFWS could provide related to the endangered fish would be useful. Tom Chart asked if there are things we can do in the permitting process or other ways to get out ahead of high-risk activities like development in the floodplain. Henry suggested coming to talk to the Uintah Basin Collaborative might be useful. John said the Resource Development Coordinating Council (RDCC) looks at any proposal to drill a well within a mile of any other well. Tom Chart

said he'd like to promote getting as many BMPs in place as possible. Ted said that on the Platte River, a streamlined, programmatic consultation approach was developed for oil and gas wells, but it's not clear that would be helpful in the Colorado River basin. Ted said he would most like to talk to CPW about some of the things we've discussed today. Madeleine said she's willing to facilitate additional conversations, but would first like to get a better handle on how much of critical habitat is already covered by a Federal nexus (Federal lands or Federal minerals), and how much might be "falling through the cracks." It also would be good to talk to CPW to see if there are species covered by current ODCC rules that would overlap with endangered fish habitat. Tom Chart said at some point we would want to include BLM and other Federal regulating agencies (State and local offices) in the conversation. Steve Wolff agreed, since ~80% of the land is in southwest Wyoming. Madeleine emphasized the need to answer two questions: is the Program working the way it should as it relates to oil and gas development where there's a Federal nexus; and is the Program working the way it should on private lands with no Federal nexus. Lisa recommended that USFWS Ecological Services participate, as well; Tom Chart agreed and apologized that they couldn't be here today. With regard to outreach, Greg suggested the Northwest Forum quarterly meeting and also the Gas and Oil Regulatory Team in southwest Colorado. Both Mesa and Garfield counties also have quarterly meetings. Greg thinks talking to industry in these forums would be more useful than talking to the Oil and Gas Commission, for example. Dave said USFWS is invited to the county meetings and sometimes attends. Tom Chart asked what would be the best approach if the Program were to present to those groups. Greg thought an introductory/overview approach would be most helpful (e.g., what the Program's doing/accomplished/spent so far, how the Program helps with ESA compliance, what the Program's concerns are about potential threats, etc.). Angela Kantola asked if there are other avenues for education (e.g., industry publications, etc.). John Rogers suggested considering approaching industry groups like the Western Energy Alliance. There's an Energy Expo in Grand Junction each February. In Utah, there's a Uintah Basin Energy Summit in Vernal each year around September (the Office of Energy Development in Salt Lake would be a good contact). Any information we can pass on to energy biologists would be important (e.g., John Rogers said there are two biologists in Vernal and one in Price). Lisa asked if there's any leveraging to be done with critical riparian habitat for other species (e.g. Yellow-Billed Cuckoo); Tom Chart said he thinks the Service's Ecological Services offices know where those overlaps are and take advantage of them where possible.

## 7. Next steps & wrap-up

- Determine "coverage" (Federal lands/minerals with Federal nexus versus private lands with no Federal nexus). Provide any shapefiles USFWS or its partners have for the endangered fish.
- Talk with CPW about what they cover/might cover
- Meet with BLM (State and local offices) and Service Ecological Services folks (including those working in the San Juan) since BLM is responsible for so much of the O&G leasing in CO/UT/WY and each office approaches things a little differently.
- Investigate outreach opportunities. As we do outreach, Angela recommended emphasizing that the Recovery Program is a collective partnership of State and Federal agencies, water users, hydropower interests, and environmental groups (it's not just a Federal/USFWS effort).
- Consider how to involve San Juan Recovery Program (Tom Chart will talk to Dave Campbell)

The group agreed this was a productive meeting. Angela observed that efforts to minimize risks

of oil and gas development on the endangered fish and their habitat will be a vital and worthwhile protection of the Upper Colorado River and San Juan River recovery program partnerships' 27-year, \$400M investment in recovery of these unique Colorado River fishes and the spectacular ecosystem where they reside.

**ADJOURN: 2:30 p.m.**

### **Meeting Participants**

John Rogers, Associate Director, Utah Division of Oil, Gas and Mining  
Henry Maddux, Director, Utah Species Recovery Programs, Department of Natural Resources  
Tom Kropatsch, Deputy Oil & Gas Supervisor, Wyoming Oil & Gas Conservation Commission  
Steve Wolff, Colorado River Coordinator, Wyoming State Engineer's Office  
Greg Deranleau, Environmental Manager, Colorado Oil and Gas Conservation Commission  
Dave Kubeczko, Environmental Protection Specialist, Colorado Oil and Gas Conservation Commission  
Ted Kowalski, Colorado Department of Natural Resources  
Madeleine West, Policy Adviser, Colorado Department of Natural Resources  
Lisa Reynolds, Colorado Attorney General's Office  
Michelle Garrison, Water Resource Specialist, Colorado Water Conservation Board  
Bart Miller, Western Resource Advocates  
Tom Chart, Director, Upper Colorado River Endangered Fish Recovery Program  
Melanie Fischer, Upper Colorado River Endangered Fish Recovery Program  
Jana Mohrman, U. S. Fish and Wildlife Service  
Angela Kantola, Deputy Director, Upper Colorado River Endangered Fish Recovery Program