Highlights – DRAFT DRY CREEK STUDIES

BACKGROUND

- In its 2008 Russian River Biological Opinion, National Marine Fisheries Service focused on three key opportunities for improving conditions for endangered coho salmon and threatened steelhead:
    - Reducing flows in the Russian River and Dry Creek during the summer;
    - Taking advantage of natural closures of the sand bar at the mouth of the Russian River to create a freshwater lagoon between May 15 and October 15;
    - Enhancing habitat in Dry Creek to provide places for young coho and steelhead to find shelter and shade and to escape fast-moving water during the summer.
- Projects are moving forward in all three areas, but **Dry Creek is the subject of two DRAFT studies released this month**.
- **These studies show the way forward to securing our current water supply and helping restore endangered coho salmon and threatened steelhead in Dry Creek.**

DRAFT Fish Habitat Enhancement Feasibility Study Report

THE PLAN – HABITAT ENHANCEMENT

- **"Plan A" for Dry Creek is the Fish Habitat Enhancement Feasibility Study.** The study is a blueprint for enhancing a total of six miles of habitat in Dry Creek, which will enable the Water Agency and the U.S. Army Corps to continue releasing water from Lake Sonoma to meet local water supply and flood control needs.
- **The first three miles of habitat enhancements MUST be created and evaluated** before a pipeline (Plan B) will even be considered. *(See attached timeline for Dry Creek schedule.)*
- **The report identifies 45 potential areas for successful habitat enhancement that will benefit coho and steelhead.** These habitat enhancements capitalize on Dry Creek's current condition *(Chapter 5).* They are not designed to return the creek to its historic condition.
- Specifically, the habitat enhancement study finds enhancement opportunities in all stretches of the creek:
    - The upper reach (below Warm Springs Dam) provides many opportunities for "constructed" habitat (log structures, side channels and backwaters) . (Pages 79-80; 98-104)
    - The lower end of Dry Creek (Westside road to the confluence with the Russian River) has conditions particularly amenable to constructing projects designed to let natural river processes do the work. *(Pages 79-80; 114-118)*
    - The middle segment of Dry Creek has opportunities for both habitat construction and locations where natural processes would be most effective. A site-specific approach to habitat enhancement will work best in the middle reach. *(Pages 79-80; 104-114)*
- **The study highlights the importance of working cooperatively with landowners** in Dry Creek and the importance of respecting critical farming operations and harvest schedules *(Pages 96-97).* A group of willing landowners is working with the agency on a one-mile demonstration project.
- The next step in the process – a conceptual design – will provide detailed cost estimates. Currently, the Water Agency roughly projects costs of between **$36 million – $48 million to enhance and monitor six miles of habitat.**

DRAFT Project Feasibility Study for Dry Creek Bypass Pipeline Study

CONTINGENCY – "PLAN B"

- **The draft Project Feasibility Study for Dry Creek Bypass Pipeline Project is "Plan B."** The pipeline *would only* be considered in the unlikely circumstance that Dry Creek habitat enhancements were unsuccessful. The pipeline study evaluated three project components:

1. **Inlet .** Four different options were considered in getting water from Lake Sonoma into a pipe– adding a "head box" to the existing facility; developing a siphon over the dam; adding a new control tower on the left side of the dam; and partnering with the Corps to construct a new tunnel that would serve both water supply and hatchery purposes. *(Pages 11-13; 41-42)*
2. **Alignment**. Three general pipeline routes were studied, including a northern route from Lake Sonoma to the Russian River near Cloverdale or Geyserville; a central route from the lake to the river, essentially following Dry Creek; and a southern route from Lake Sonoma to the Russian River near Forestville. *(Pages 13-16; 42-43)*
3. **Outlet.** Three general outlet locations were studied (upper river, near Geyserville; middle river near Healdsburg; and lower Dry Creek). Four options were studied to get water from the pipe into the Russian River or Dry Creek, including a riverbank outfall structure and three types of diffusers. *(Pages 16-23; 43-50)*

PREFERRED ALTERNATIVE

- The study identified a preferred alternative (referred to as "4c"), which:
  - **Uses the existing facility at Warm Springs Dam**, plus the addition of a "head box" to allow gravity to convey the water the entire length of Dry Creek valley;
  - **An alignment that primarily follows Dry Creek Road** (an existing right of way) plus some agricultural roads;
  - An outlet that discharges the water into the **Russian River near the existing Highway 101 bridge**.
- Several other alternatives, all which use Dry Creek Road as the primary route, ranked very close to the preferred alternative. After the alternatives were ranked, a cost-benefit analysis was conducted, which resulted in the selection of a preferred alternative. (*Chapters 4, 7 & 8)*
- **The difficulties associated with getting water over the high elevation of Canyon Road and putting the water into the Russian River resulted in it ranking low** (16^{th} and 17^{th} out of 21 combined alternatives) as a potential route. The Canyon Road alternative(s) would require the costly construction of a new inlet tunnel in partnership with the Corps and the outlet options into the river near Geyserville aren't favorable . *(Pages 41-42)*

COSTS, TIMELINE & OTHER ISSUES

- **The capital cost of the preferred alternative is $141.5 million (2011 dollars).** A preliminary analysis, using the agency's long-term financial model, projects that water rates would increase by roughly 25 – 30 percent. *(Chapter 8; table 8.6)*
- Because a pipeline could only be constructed after three miles of habitat have been enhanced, **the total costs of the Dry Creek project (construction plus required habitat enhancement) will be roughly $162 million in today's dollars.**
- The pipeline construction process would take an estimated six years (Figure 9-7).
- **The pipeline itself would be 72 inches in diameter**. This would allow it to convey 180 cubic feet per second – the volume of water the Water Agency has historically been allowed to release into Dry Creek during summer months.

Timeline of Projects Required in Dry Creek Valley