

**YOLO BYPASS WORKING GROUP  
MEETING 34**

**DRAFT MEETING MINUTES**

**MEETING DATE:** March 25, 2005

**LOCATION:** California Department of Fish and Game  
Yolo Wildlife Area Headquarters  
45211 County Road 32B (Chiles Road)  
Davis, CA 95616

**IN ATTENDANCE:** Robin Kulakow, Yolo Basin Foundation (YBF)  
Corky Quirk, YBF  
Dave Feliz, California Department of Fish & Game (DFG) Yolo Wildlife Area  
Jeff Weaver, DFG – Region 2  
Marina Brand, DFG - Region 2  
Teresa LeBlanc, DFG – Region 2  
Stephanie Buss – DFG  
Tom Schroyer – DFG  
Charlie Alpers, U.S. Geological Service  
Dave Ceppos, Center for Collaborative Policy  
Bonnie Turner, California Wildlife Conservation Board  
Dan Tibbits, US Army Corps of Engineers (Corps)  
Colonel Ron Light, Corps  
Greg Kukas, Corps  
Jack DeWit, DeWit Farms  
Selby Mohr, Mound Farms  
Darell Slotton, UC Davis  
Shaun Ayers, UC Davis  
Stephen McCord, Larry Walker and Associates  
John McNerney, City of Davis  
Dave Brown, Sacramento Yolo Mosquito Vector Control District (SYMVCD)  
John Fritz, SYMVCD  
Mike Hall, Conaway Preservation Group  
Tony Lucchesi, Wildlands, Inc.  
Chuck Dudley, Farmer  
Robert Eddings, California Waterfowl Association  
Donna Podger, California Bay Delta Authority (CBDA)  
Lauren Hastings, CBDA  
Mel Castle  
Ed Towne, Bullsprig Outing  
Dick Goodell, Glide-In Ranch  
Chris Fulster, Glide-In Ranch  
Chris Fulster Jr., Glide-In Ranch  
Don Stevens, Glide-in Ranch  
Dave Kohlhorst, Glide-In Ranch  
John Legakis, Senator Outing  
Richard Smith, U.S. Fish and Wildlife Service  
Ted Sommer, Department of Water Resources (DWR)

Michael Perrone, DWR  
Randy Mager, DWR  
Trevor Greene, DWR  
Heidi Rooles, DWR  
Butch Hodgkins, Sacramento Area Flood Control Agency (SAFCA)  
Peter Buck, SAFCA  
Brad Burkholder, DFG  
Ron Tadlock, Tadlock Farms  
Spencer Defty, Diamond D  
Ron Morazzini, Yolo County Board of Supervisors, Mike McGowan  
Beth Gabor, Yolo County Board of Supervisors, Helen Thompson  
Chris Foe, Central Valley Regional Water Quality Control Board  
Vicki Fry, Sacramento Regional County Sanitation District

### **Meeting Introduction**

Dave Ceppos called the 34<sup>rd</sup> meeting of the Yolo Bypass Working Group (Working Group) to order. The Working Group was started five years ago with funding from the CALFED Bay-Delta Program (now the California Bay Delta Authority, [CBDA]). The group continues to be funded through CBDA. It is the primary forum for Yolo Bypass (Bypass) issues, specifically on Bypass conditions as related to landowners, tenants and regulatory entities that have a direct responsibility or land ownership responsibility in the Bypass.

Mr. Ceppos discussed that due to the increased participation at meetings, YBF is asking for \$5.00 donations for lunch for the first time ever.

The previous meeting minutes were revised to reflect that references to the “Bureau of Land Management” should be changed to “Bureau of Reclamation”. Following these changes, the minutes from Meeting 33 were adopted as final for the project administrative record. Also, Mr. Ceppos announced that the Working Group’s Colusa Basin Drain Committee has not met again yet and is still awaiting information from the Northern California Water Association regarding their preliminary report by CH2MHill on Colusa Basin Drain conditions.

### **Mosquito Vector Control Update Dave Brown, SYMVCD**

Dave Brown, Manager of SYMVCD handed out information about recent West Nile virus occurrences. He stated that 33 birds have been found so far this season in the Sacramento Area including one in Davis. Mosquito populations are just starting to grow but the virus has already been detected in some captured specimens. There has been no human infection yet. SYMVCD has recently adopted a West Nile response plan and is now acting on it. The District is already in emergency response mode. They have an epidemic response contingency that is not enacted yet but the District remains cautious because some of conditions described in that contingency are present (e.g. heavy, prolonged snow pack and rainfall).

The District is not collecting dead birds anymore as it is an inefficient use of limited resources. However, they still want to know about bird occurrences and Mr. Brown gave out the following phone number to report dead birds: 877-968-BIRD. People can also go to the following website for information: [www.westnile.ca.gov/](http://www.westnile.ca.gov/).

Q. How bad is the virus' impact to the birds.

A. Districts throughout the state are seeing 95% mortality in crows.

Mr. Brown encouraged everyone that if you find a dead bird, use the following steps. 1. Call or go to the website and report the bird. 2. Use a plastic bag and throw away the bird. Do not touch the bird. There is no evidence that humans get the virus from dead birds but there is no reason to take chances. In closing, Mr. Brown introduced John Fritz – District water manager specialist. Mr. Fritz will be coordinating water activities with Yolo Bypass landowners, duck clubs, and farmers

### **Landowner Advisory Committee**

Mr. Ceppos reminded the group that the primary purpose of the Working Group was to be a forum for Bypass landowners and associated / regulating agencies. He described how the ratio of landowners to agency participants is dropping and that the Yolo Basin Foundation wants to be sure that meetings are a place for everyone. Mr. Ceppos asked if any landowners are willing to participate in a landowner advisory committee to advise on and see if this can help improve landowner attendance. Selby Mohr, Jack DeWit, Ron Tadlock, and Mike Hall volunteered.

### **Yolo Bypass Wildlife Area 2004-2005 Hunting Season Summary Dave Feliz, DFG**

Dave Feliz summarized the hunting season. DFG is doing adaptive management of hunting areas as new opportunities arise. He provided the following information:

- The Wildlife Area “Open Zone” has 1,900 acres, 50 free roam blinds. 16 double blinds. Opening day allowed for 50 people in the free roam area plus hunters in all the blinds.
- The pheasant opener included 2,200 acres south of Putah Creek. 4,450 additional acres were also added some time later. Both are on the north end of Tule Ranch. Pheasant season closed on December 26th.
- In December, the Wildlife Area opened the closed zone to hunting for first time.
- Hunting season was impacted by Bypass flooding. The Wildlife Area was closed due to flooding from January 3 to 21.
- The Wildlife Area has seen a dramatic rise in hunters since 1997, increasing from 500 in 1997 to 3,800 in 2005. Junior hunters were up to 250 this past season. Pheasant hunting has seen increases from 57 to 500 with 100 hunters using the area this year.
- In 1997, hunters were commonly harvesting ruddy ducks. In 2005, over 5,000 birds were harvested with a regular pattern of green winged teal, scaup, northern shoveler, widgeon, and mallard being the top five birds. We are on the cusp of more habitat being created and this season was best hunting year yet.

Mr. Feliz concluded his presentation by reminding participants that he is available to talk any time about the hunting program, and/or conditions on duck clubs etc.

### **Presentation by U.S. Army Corps of Engineers Colonel Ronald Light**

Greg Kukas from the Corps introduced Colonel Ronald Light, the recently appointed District Engineer for the Corps's Sacramento District. Col. Light has been in command of the Sacramento

District since August 2004. Col. Light provided a Certificate of Appreciation and a Corps coffee mug to Robin Kulakow for her continued public service on behalf of Yolo Bypass interests. Col. Light remarked that he has a strong affinity for the land uses and values of Bypass landowners, having a father that was a farmer / rancher and being an avid hunter.

He described his mission with the Corps and addressed the changes in the Corps. He acknowledged that previous Corps approaches to project work were to be too directive and authoritarian. The new thinking in the Corps is that successful projects are a result of working collaboratively with groups like the Working Group.

Q. A participant asked who is responsible for maintenance of Toe Drain.

A. Col. Light stated that dredging is a generally a Corps responsibility when the area is one the Corps has jurisdiction over. Such work usually requires local cost share and a local expression of need and that as far as he knows, the Corps has not been approached yet about the Toe Drain. Butch Hodgkins stated that he believes the Toe Drain is a state responsibility because of the state flowage easements in the Bypass. Col. Light will check with staff to see if there is anything he can do.

### **Update on Yolo Bypass 2-D hydraulic model. Greg Kukas, Corps**

Mr. Kukas introduced discussion about two-dimensional (2-D) model activities. The Yolo Bypass Modeling Technical Advisory Committee (MTAC) has met twice. The primary purpose of discussion at the last meeting regarded how fine to make the 2-D modeling mesh. There are trade offs of funding and time depending on how complex it is made. The MTAC provided some consensus on how fine to make the mesh.

Dan Tibbets of the Corps presented a geographic description of the model. He defined the boundary reach of the model as extending from Fremont Weir, downstream to Rio Vista (including Prospect Island, Cache Slough, Prospect Slough, and Egbert Tract.) He described the model as being capable of incorporating flows from Cache Creek, Putah Creek, Willow Slough, and the Knights Landing Ridge Cut but that the model will assess all those flow cumulatively in the Bypass, rather than being able to isolate conditions that reflect impacts from a single or even multiple tributaries. He said that the model will reflect 1997 topographic data for the Bypass but that it will assess impacts to system design flows which were first developed in the 1950s.

Q. Has the Corps done “sensitivity analyses” yet?

A. Mr. Tibbets stated that is what they are doing right now. He reiterated that the model will assess design flows. The advice from the MTAC is related to the sensitivity analysis, particularly regarding how detailed or not to make the modeling mesh.

Q. What will results be used for?

A. The model will be used as an assessment tool for impacts of proposed land use changes in the Bypass. Current projects require a neutral or beneficial impact to flows and flow capacity. The Corps and other proponents of the model anticipate it will be a tool to assess land use changes and to a lesser degree, future land use design options

Q. Has there been any change in flows due to siltation?

A. Most siltation happens just below Fremont Weir. Other localized areas have been observed but we’ve never been told by landowners that major siltation is occurring. Velocity data from the model

may also help assess siltation conditions by identifying where water is slowing down and perhaps dropping its sediment load.

Q. Are there established gauges in the Bypass to support data and measure sediment deposition rather than relying on a model?

A. No. There has been discussion of the need for more gauges to get actual data, and to assess changes over time. There is no way to track land use and land feature changes over time to update the model save for physically collecting the data. The Corps will do simulations to compare modeling results to known data. DWR has some gauges measuring siltation just below the Fremont Weir. Calibration of the model will use data from the Verona gauge upstream of the Bypass and the Woodland gauge within the Bypass.

Q. Is the model going to be used to justify moving more water down the Bypass?

A. No. This is an impact assessment tool being done with CALFED's support as requested and supported by several parties including the Working Group. It is not and has never been intended to be a flood relief or flood management model.

### **Lower Yolo Bypass Stakeholder Process Feasibility Assessment Update Dave Ceppos, CCP**

Mr. Ceppos gave a brief history of the feasibility study purpose and process. He and his staff are interviewing over forty people including: all Reclamation Districts adjacent to the Bypass from I-80 south; the public agency and NGO owners of Liberty Island; Prospect Island, and Little Holland Tract; private land owners within the Bypass; Federal and State natural resource trustee agencies; flood system agencies; environmental advocacy groups; ecological experts; local government representatives; and emergency and vector control services providers. The interview process uses an identical questionnaire to ensure that the process is standardized. CCP is assessing whether it is feasible and appropriate to establish a lower Bypass group and if so, whether such a group would be structured similar to or different from the Working Group. Mr. Ceppos reported that after having completed approximately two thirds of the interviews, only one participant has stated that convening a group is not a good idea. He explained that the final assessment report will present basic findings from participants comments, CCP's professional assessment of the conditions, and a set of recommendations that could be anything from "don't start a process" to "start a process". CCP's report will be done by early May and will be available online at CCP's and YBF's websites.

### **Mercury Mini-Workshop Donna Podger-CBDA**

Donna Podger introduced background information on mercury issues and CBDA's Regional Management Strategy (<http://science.calwater.ca.gov/pdf/MercuryStrategyFinalReport.pdf>).

Ms. Podger described some of the problems with regional mercury such as the existence of over 200 abandoned mercury mines and the use of mercury in historic gold recovery. Mercury is spread all over the Sacramento Valley and State. It is estimated that more than 13 million pounds of mercury are deposited in the environment. Ms. Podger explained however, that mercury primarily poses a threat when it is transformed into methyl mercury and becomes biologically available. This is the form that gets into the food chain. By example, she explained how methyl mercury concentrates in

sport fish because they are near the top of the aquatic food chain but that total mercury in drinking water is generally not a problem. The primary problem occurs when methyl mercury is ingested.

CBDA supported independent researchers to come up with a mercury strategy (see website listed above). One CBDA goal is to remove toxics from the environment but the problem with that is creating unintended biotic exposure. It is unclear if we can effectively manage the landscape to reduce the risk. We don't know yet how to effectively minimize getting methyl mercury into the food chain.

Current studies are showing that methyl mercury exposure adversely effects fish reproduction and avian reproduction. It can cause human neurological impairment later in life if exposure occurs as an infant. Recent data shows there is an effect on clapper rails. Scientists are now looking at diving ducks, terns, stilts, and avocets; studying if and how methyl mercury is bio accumulated in those species. Specialists are also studying methyl mercury effects on splittail. Specific sources for methyl mercury production remain somewhat uncertain; however, wetlands and floodplains have been shown to have conditions that create methyl mercury as have mining tailings

CBDA wants to provide better coordination between researchers and land managers. To that end, CBDA is funding studies to quantify mercury loads, inventory mine sites, determine bioavailability and characterize the process affecting methyl mercury production. Proposition 13 slated \$12 million for mine remediation and CBDA is working with Corps' restoration of abandoned mines program to maximize this funding. CBDA is similarly developing strategies to reduce risk. Scientists are conducting fish tissue monitoring in the Delta and its tributaries and have formed collaborative groups to do public outreach. They are also doing limited fish consumption studies to assess who is most at risk and are evaluating existing data in order to issue new advisories if warranted. CBDA is also trying to encourage data standardization and integration to ensure shared understanding in future investigations and advisories.

Q. A participant asked if there is any proof that people are getting sick from eating mercury laden fish.

A. Studies done in Japan show risks to fish eating populations. The United Nations is sponsoring some studies and a National Academy of Sciences study backs up intake limit requirements. Some fish in the Delta region could be approaching intake thresholds.

Q. Is it safe for my children to swim in tributaries that are known mercury sources?

A. Yes, there is no mercury damage.

Q. Is there a concern about airborne mercury?

A. The levels in California are unknown. East coast levels are high due to coal burning emissions. Airborne mercury could be more biologically available but that is conjecture at this point.

CBDA's goal is to develop a predictive model for methyl mercury assessment. An annual review of data/findings will be available to the public and we are always working to keep the data high quality and integrated with other studies

Q. SAFCA is doing a large habitat restoration on the lower American river. There will be thousands of yards of soil from mine dredge tailings. Are there any best management practices to help control mercury?

A. Yes there are and we should discuss them in a more focused setting than this meeting. The

project could be an excellent opportunity to monitor conditions.

Q. There are many studies on the extent of mercury in the region. Are there any studies on how to clean it up?

A. Yes but most methods remain uncertain.

### **Introduction of Mercury Regulations Chris Foe, Central Valley Regional Water Quality Control Board**

Chris first discussed why the Regional Water Quality Control Board (RWQCB) is involved in mercury research and regulation. He described that the Federal Clean Water Act (CWA) requires states to identify water bodies that don't meet Federal standards for clean water. This approach requires an assessment and development of a total maximum daily load (TMDL) for an impaired water body. The list of impaired water bodies is called the 303 (d) list (from Section 303 of the CWA). The Delta is on the 303(d) list and was put on the list several decades ago when mercury was found in Delta striped bass. In the 1990s, the State Water Resources Control Board was sued by environmental interests for not pursuing its jurisdictional responsibility to regulate mercury conditions. The Board's TMDL is due soon for the Delta estuary including the Yolo Bypass.

The TMDL report will be provided to the U.S. Environmental Protection Agency (EPA). The report will include: a problem statement, target intake numbers for ingestion of fish tissue, targets to bring fish levels down to .3 parts per million, and comprehensive source analyses to better attribute where the total mercury is coming from. The RWQCB will provide the EPA with a report in the following year describing control actions for methyl mercury. Mr. Foe reiterated Ms. Podger's statements that methyl mercury is a neurotoxin. Populations most at risk are pregnant women and developing fetuses. Methyl mercury accumulates up the aquatic food chain, primarily (with regards to human exposure) in fish tissue. Total mercury moves downstream through a watershed in elemental form. Production of methyl mercury is an aquatic problem regarding production and an ingestion problem regarding contamination. Farm workers and crops are not at risk from exposure to water with mercury in it.

Regarding conclusive fish data for the Yolo Bypass, there is very little. There have been studies done on large mouth bass but they don't move around the area too much. Researchers have compared fish locations, average annual mercury concentrations, and fish size to see if some conditions correlate. Preliminary research shows that as mercury concentrations increase with downstream conditions, so does mercury content in fish tissue as the fish size increases.

Mr. Foe described specific methyl mercury data for the Bypass. Much of the data was collected in Prospect Slough east of Liberty Island and Little Holland Tract in the lower Bypass, in the Toe Drain south of I-80, and near and upstream of the Cache Creek Settling Basin on the northwest edge of the Bypass. Data shows there are higher concentrations of methyl mercury in the winter than in the summer. Correlation graphs show that total mercury levels in the Bypass are high. Mr. Foe attributed these levels to the contribution from Cache Creek- 125 kilos of total mercury annually or approximately 40 percent of the mercury believed to be moving through the Delta. Researchers believe that the Cache Creek contribution is actually higher but that about half of the mercury is being trapped in the Cache Creek Settling Basin. The total mercury load for the Delta is approximately 377 kilo per year.

Potential control programs could include up to a 95 percent reduction in mercury contribution to the Bypass but the solutions are not easy or inexpensive. Controls would include raising the Settling Basin levees to trap a specific target of silt. This would still require periodic dredging of silt from the basin. Most of mercury has left mine sites and is moving slowly down Cache Creek. We still need to clean up the mines but we need to clean up mercury in canyon more and remediating the mines will be exceptionally expensive.

Q. Where would we put the silt and sediment dredgings?

A. We need to put it where it will stay out of the water table. Use it to cap landfills. Keep it above the 100 year flood plain.

Mr. Foe stated that researchers need better data on total mercury throughout Bypass. They need to get data to help advise where to put wetland habitat where total mercury is lowest. We need to have tools to inform management first, perhaps as a way to avoid certain future regulation.

Q. How high are early recommendations for raising the Settling Basin weir?

A. Maybe 10 feet although that is a total estimate.

Mr. Foe concluded his presentation by reiterating key highlights about mercury sources and current data. He reiterated his desire to work with landowners to sample conditions throughout the Bypass as a way to better characterize mercury conditions and to come up with workable control actions.

The meeting was adjourned at 2:15