



Natural Resources
Defense Council

71 Stevenson Street
San Francisco, CA 94105
415 777-0220
Fax 415 495-8996

Analysis of the Memorandum of Understanding Regarding Efficient Water Management Practices by Agricultural Water Suppliers in California

Background

The Agricultural Efficient Water Management Act of 1990 (AB3616), required the Department of Water Resources (DWR) to establish an advisory committee to develop a list of efficient water management practices for agricultural water suppliers. Governor Wilson directed the AB3616 Committee to develop a Memorandum of Understanding (MOU) between the agricultural and environmental communities and other interested parties, similar to the MOU regarding urban water conservation that has achieved significant success in advancing urban water conservation in California.

The environmental community participated in the AB3616 process for several years, until it became apparent that the agricultural members of the committee were not interested in achieving significant changes in agricultural water use. At this point, the majority of the environmental participants left the process.

Consistent with our earlier concerns, the Memorandum of Understanding Regarding Efficient Water Management Practices by Agricultural Water Suppliers in California (MOU) that resulted from the AB3616 process is not an agreement that will achieve changes in California's current inefficient allocation of water resources, nor will it even significantly improve irrigation efficiency.

Agricultural water demand management is a critical element of creating sustainable patterns of water use and improving water quality in California, and thus, to any long term solution to the problems of the Bay/Delta. Unfortunately, the MOU as currently written is not likely to achieve these improvements, but appears to be intended merely to justify the status quo. The specific shortcomings of the AB3616 MOU include the following:

Concerns about the List of Efficient Water Management Practices (EWMPs)

- The MOU does not require districts to measure water deliveries to customers. If water markets are to function effectively we must be able to account for water volumetrically.
- The MOU does not require districts to use volumetric pricing. Without this fundamental tool, farmers do not receive correct economic signals about their water use. Furthermore, without volumetric pricing, on-farm efficiency measures may fail a cost-effectiveness test because, from the farmer's perspective, improvements in efficiency will not necessarily translate to savings in water costs, whereas they would if proper measurement and pricing tools were employed.

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- The MOU is based on planning rather than on performance. In other words, the MOU guarantees that signatories will develop plans, but it does not guarantee that they will make efficiency improvements. We have learned from our experience in urban water conservation that clearly defined performance standards are critical to improving water use efficiency and that any loopholes or vague terminology can be used to avoid implementation.
- The MOU specifically states that it does not intend to target on-farm use of water. Since that is where many of the irrigation efficiency improvements can be made, as well as choices about cropping patterns, eliminating the end user misses major opportunities for efficiency improvements. In contrast, the urban MOU targets both agency distribution systems (e.g. through leak detection and repair) as well as end users (e.g. through residential plumbing retrofits, commercial and industrial audits, etc.)

Concerns about the exemption methodology

Districts can too easily exempt themselves from implementing most of the efficiency measures. The shortcomings of the exemption methodology include the following:

- The cost effectiveness analysis is based on a five year time frame for calculating benefits, even though the savings from a particular measure may last much longer. On page E-2 of the exemption methodology, the MOU says that "an EWMP may be exempted from implementation if the analysis demonstrates that ...the EWMP has a net negative economic benefit for the water supplier *during the term of the plan.*" (emphasis added) The term of the plan is described in section 6.02 as a period of five years. In effect, this flaw results in a comparison of all of a measure's costs vs. only a fraction of its benefits.
- While the urban MOU assumes that the best management practices are cost effective, unless a district proves otherwise, this MOU shifts the burden of proof - districts don't have to do anything unless they can affirmatively show that it is cost-effective.
- Many water districts in California are paying far below market cost for water. Their cost-effectiveness analysis is then based on avoided costs that are artificially low. The cost effectiveness of a given conservation measure is directly related to the price of water. Districts that pay \$10 or \$20 per acre foot of water are unlikely to spend \$100 to conserve an acre foot of water. And since many agricultural districts pay far below the market cost of water, there is a great deal of improvement possible in water use efficiency that would pass a cost-benefit analysis from society's perspective, but which may fail by the narrower perspective of an AB3616 plan. In many such cases there may be win-win opportunities where the conservation improvements could be funded by an outside entity in return for all or a portion of the conserved water.

- A district can exempt itself from any measure or practice that it claims has third party impacts, without even needing to document the alleged impacts or to explore the possibilities for mitigating those impacts.

Concerns about the Council

The MOU establishes a council that will evaluate plans submitted by districts. The Council will be comprised of group 1, water suppliers, group 2, environmental interests, and group 3, other interested parties who will be non-voting members. There are many problems with the proposed institutional structure.

- The Council is limited to endorsing a plan or taking no action. The Council cannot even formally disapprove or reject a plan. Therefore, the Council has no censure available. This limited range of action leaves the Council virtually powerless to induce action from reluctant districts.
- The environmental community has severe resource constraints and cannot realistically be expected to review hundred of district plans. If we are not able to do so, and to provide an analysis of their strengths and shortcomings, the plans are likely to slip through, giving the districts the public illusion of efficiency.
- The institutional structure offers ample opportunity to mislead. For example, the first member of group 2 (environmental interests) is the former head of the California Farm Bureau, who was able to join group 2 in his capacity as a Board member of Californians Against Waste, a Sacramento based group that does not even work on water issues.

CALFED staff has acknowledged that at scoping sessions throughout the state the public repeatedly expressed the need to use existing supplies efficiently before developing additional supplies. Approximately 54% of California's agricultural water supply is currently used to grow alfalfa, irrigated pasture, rice, and cotton.¹ Shifting a portion of that water to other uses could generate significant environmental and economic benefits, and would represent a more efficient use of a scarce resource.

The MOU clearly will be used to justify existing water use and new facilities rather than actually improving efficiency. Even representatives of the agricultural community have characterized the MOU as a "means to justify and defend" current practices and "as a means to justify further water development."² If CALFED settles for AB3616 as an acceptable water use efficiency program, it will have fallen far short of its responsibility to assure the public that existing supplies are being used efficiently.

¹ Peter Gleick, et al., *California Water 2020: A Sustainable Vision* (Oakland: Pacific Institute, 1996) p. 4.

² George Bayse, *California Water Law & Policy Reporter*, December 1996, p.38.