

**DRAFT EIR/EIS COMMENT FORM****DUE OCTOBER 7, 1996 4:30 PM**Name: VERNON S. and MARILYN J. PICCINOTTIDate: October 6, 1996Address: 3700 SPRING HILL ROADCity: PETALUMA State: CA. Zip: 94952Phone: (707) 763-5511**RECEIVED****OCT 07 1996****CITY OF SANTA ROSA  
CITY MANAGER'S OFFICE****How to use:**

Please fill out the above and provide your written comments about the Draft EIR/EIS in the space provided below. You may add additional pages if needed. Please write legibly. If you prefer to type your comments on a separate page, please attach to this form. Where possible, please reference the page to which the comment refers. When you have completed your comments, please fold the form so the City's address is showing, tape the edges together, **(Do not use staples)**, and place in the mail.

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I. AVAILABILITY OF THE DRAFT EIR/EIS

*The draft EIR/EIS was essentially unavailable for effective public review.*

001

This document, in the first instance, was prepared at immense public expense. It was thereafter sequestered as to complete sets in the Guerneville Regional Library, the Sonoma County Central Library, Sonoma State University Library and at Laguna Wastewater Treatment Plant. At Sonoma State Library its use was severely curtailed in a fashion restricting the comparative analysis which might require the simultaneous use of a number of volumes.

Three volume summaries were located at Petaluma Public Library. It is noteworthy that the Petaluma area, adjacent to the two reclamation/irrigation sites - West County and South County alternatives - had NO complete set of documents. For comparative analysis the CD-ROM is inadequate and incomplete. Residents of Petaluma were compelled to travel from their area in order to consult complete sets.

This, coupled with a prohibitive charge for public documents compiled at prohibitive public expense, can only be viewed as an intentional effort to impede convenient public access, minimize informed public comment and objection and contribute to a rapid decision-making process not inconvenienced by a questioning or opposing public.

MGP  
H.P.

**II. PUBLIC COMMENT PERIOD**

*The public comment period for the draft EIR/EIS was wholly inadequate given its voluminous size and highly technical content.* 002

From its release to the public on or about August 9, 1996 until the close of the comment period on October 7, 1996, some fifty-nine calendar days will have elapsed.

The National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) mandate lesser review and comment periods than the sixty (60) days allowed in this instance. A member of the Santa Rosa Board of Public Utilities, in the meeting of September 5, 1996, used the foregoing periods to justify the adequacy of the 60 day review period for this EIR/EIS.

This document exceeds 8000 pages of highly technical material. For the non-professional, in the many scientific fields employed in the preparation of this document, the reading of it is difficult and time consuming. Its lack of any index is fatal to specific category research. The Table of Contents, while directing the reader to the primary treatment of main subjects, is wholly inadequate for locating related material as it may be found interspersed throughout the innumerable companion sections and not separately identified. Only a much more precise Table of Contents or an index could have adequately accomplished this.

*YMP*  
*ES*

Notwithstanding these unnecessary and inconvenient impediments to effective use, the 002 (cont.) non-expert reader was compelled to establish a rudimentary understanding of technical and scientific terminology. They must, thereafter, attempt to decipher, understand and relate their research to relevant issues. The incomplete version of the EIR/EIS in the Petaluma geographic area, significantly impeded this process.

Given these factors, a minimum of 120 days would have constituted a much more realistic review and comment period. ]

mgp  
usd

**III. INSUFFICIENCY OF MITIGATIONS**

*The draft EIR/EIS is inadequate in that many of the "mitigation's" proffered and ostensibly directed toward reducing impacts to a standard of "less than significant" are illusory, insufficient and highly subjective.* 003

The concept of mitigation - that intended to reduce or render less severe adverse effect- is, from a practical and objective standpoint, often inadequate in relation to the impacts identified or indicated in the EIR/EIS. ]

Some are functionally impossible, as would be mitigation 2.4.1, "Removal of Aggregate Resources Prior to Construction" as set forth in response to Land Use Impact 1.5.3, "The Storage Reservoir Component may be an Incompatible Land Use Type in a Designated Quarry Area." It has been estimated by competent observers that the aggregate deposits relating to the site of the Two Rock reservoir approximate HUNDREDS OF THOUSANDS OF YARDS AND TONS of aggregate. To effectively remove this would necessitate excavation and modification of the site on a scale comparable to that of the construction project itself. ] 004

Many other mitigation's fail by simple admission - "No feasible mitigation has been identified", thereby leaving the underlying impact theoretically total. ] 005

MGP  
USD

Excessive reliance upon subjective, speculative and non-specific "Control Programs" are found at: 006

- 2.5.2
- 2.5.3
- 2.5.6
- 2.5.7
- 2.3.15
- 2.3.16
- 2.4.5
- 2.3.11

Some are merely ridiculous: 007

- 2.4.4 *California Red-Legged Frog Capture and Relocation Program*
- 2.4.15 *Sensitive Plant Relocation Program*
- 2.4.9 *Construction Noise Control*
- 2.4.10 *Protect Undiscovered Cultural Resource Sites* (If these can be protected, there is a high degree of probability they are not "undiscovered".)

Heavy reliance is placed upon the artifice of stating an impact and then applying a mitigation to reduce the impact to "less than significant". Whose "impact"? Whose "less"? Whose "significant"? These often impractical and irrelevant solutions to real problems create only superficial and illusory answers in many instances. 008

YMG  
WSP

At Page 4.5-45, Mitigation 2.3.12 proposes to "Provide Replacement Water Supply for Affected Wells" (should well failure occur.). It is then asserted that with provision of the alternate water supply the impact will no longer be significant. 009

Presumably this is city water - what showing will be required to qualify for this water?

- *Who pays for hook-up, installation?*
- *How much water will be provided and for how long?*
- *Who pays for the water?*

In the narrow bureaucratic sense there is no problem. There is water. And, when you've seen one water, you've seen them all! The reality is that there is an immense problem, not even remotely mitigated. To be forever more reliant upon city water is anything but "less than significant." |

In the summary of Significant and Unavoidable Adverse Impacts cited at Volume III, Chapter 5, Page 5-14 through 5-21 it may be learned that alternatives 3 A-E (West County) are affected by 26 impacts which are rated Significant and Unavoidable. Frequently no mitigation whatsoever can be identified, others are mere exercises in bureaucratic creativity and flights of fantasy such as "risk monitoring" and "control programs", the moral equivalent of "just trust us." 010

- *How easy will it be after "risk monitoring" to be confronted by a situation which cannot be mitigated in actuality?*

*mgp*  
*UP*



- *How easy will it be after implementation of a "control program" to encounter a situation which is not controllable in actuality?* 010 (cont.)

It appears that in the ethereal world of EIR impacts and mitigations when you don't know where you are going any road will lead you there.

MJP  
USP

**IV. GROUNDWATER**

*The EIR/EIS does not accurately and objectively assess the total impact on* <sup>011</sup>  
*groundwater in the West County study area.*

The quality and quantity of groundwater in the West County alternative is seriously threatened by the proposed reservoirs and irrigation.

No field survey seeking to identify existing wells, their depth, volume, condition, and rate of production is indicated to have been conducted or attempted. The EIR/EIS does state that following selection of an alternative involving irrigation such a survey would have to be accomplished.

The seminal issues regarding groundwater are quantity and quality, sufficiency and purity. Both are admittedly impacted in adverse fashion and to an unknown and unknowable extent—until it is too late.

The treatment of the subject of Groundwater, commencing at Vol. II, Section 4.5 <sup>012</sup> provides often conflicting and contradictory assessments of the hydrological and hydrogeological considerations which apply.

mgp  
WSP

In pertinent part it is indicated that groundwater recharge in Sonoma and Northern Marin 012 (cont.) Counties generally occurs in upland areas adjacent to groundwater basins. The primary sources of recharge are precipitation and stream seepage.

Vol. II, Table 4.5-1, Page 4.5-10 indicates that all West County reservoirs have in common as a hydrogeological unit the Wilson Grove Formation and attendant springs. At page 4.5-7 the Wilson Grove Formation is characterized as "one of the principal water producing formations of Sonoma County." At page 4.5-14, "the Wilson Grove Formation is the major aquifer in the area...."

The watersheds of Americano and Stemple Creek are located in Southwestern Sonoma County. Groundwater is usually in shallow wells, typically less than 30 feet below the ground surface and dangerously close to the surface. These usually weak wells provide limited amounts of water for domestic and stock watering use. Groundwater is, at best, limited in the West County region and totally reliant on surface recharge. As natives of the Two Rock valley all too well know, an impervious "blue shale shelf" forms a floor under the valley strata 60 to 100 feet deep. Typical of the area, page 4.5-15 describes a test well in the Two Rock sub basin which was a "dry bore hole."

Like a dry sponge, whatever water from whatever source, sparse though it may be, goes into this thin strata above the shale shelf and remains there. ]

mg P  
WSP

Page 4.5-13 states, that generally the groundwater basin is unconfined at shallow depths. 013

At Page 4.5-2, it is noted that in an unconfined aquifer the water table is assumed to be connected to the atmosphere through openings in the overlying material. Thus, the limited groundwater of the West County is especially vulnerable to polluted recharge.

Although the quality of treated water to be stored and applied to irrigation is purported to exceed that of the region's groundwater, draft regulations of the State Department of Health Services are being proposed to establish standards for the use of reclaimed water, specifically as it relates to the recharge of groundwater basins. One appears justified in concluding that the State is not yet willing to accept the premise that "cleaner" treated water is desirable as a cleansing agent for "dirty" native water, but according to Vol. XVI, U-1, Page 15, an option to the 20% Maximum Russian River Discharge is, in fact, "discharge of treated wastewater to aquifers for recharge of the aquifer." ]

The proposed storage reservoirs are intended to operate as storage areas. While 014 reclaimed water would clearly not be designated for recharge purposes, some reclaimed water would inevitably flow from the bottom of the reservoir and enter into the region's groundwater systems. Because of the previously mentioned thin veneer of the water bearing strata and the dry conditions of the area, it may be assumed that water so introduced will migrate at a rate faster than those argued in the draft EIR/EIS.

*mfp*  
*USF*

The input of such percolation would be dependent on depth of groundwater, clearly minimal; storage capacity of reservoir, clearly massive; relative time underground, clearly unknowable; and horizontal distance from source to water well affected, clearly variable. ]

By the artifice of a "20 percent contribution zone" standard and excessive reliance upon intermittent and geographically dispersed geological assessments, the EIR attempts to build a case for ascribing centuries and parts thereof ( 130 years, 67 years etc.) as the interval it would take for reclaimed water, leaching from storage reservoirs, to reach affected wells. 015

Upon this reed thin matrix of theory, educated guess, assumption and hope rests the security of a clearly water deficient region. When coupled with the inevitable eventual invasion of irrigation water from surrounding farms the already modest capability of the region to protect its fresh water must certainly be overwhelmed. ]

There are no known and established "road maps" defining the actual routes of flow for the movement of groundwater in the Two Rock Valley. Hydrological and hydrogeological assumptions and presumptions may prove not even remotely to accurately reflect actual hydrostatic conditions. Santa Rosa indicates no willingness to drink this water and the West County should not be expected to do so either. ] 016

*mgp*  
*WST*

A massive system for treatment carries with it a concomitant high potential for periodic failure. At least once in the very recent past the release of Cryptosporidium laden water from the Laguna treatment plant occurred. This was allegedly attributable to the intermittent operation of filtering facilities during a period of construction, however, at Vol. VII, H-3, Page 5, it is noted a filter back-wash system was malfunctioning for a six month period ending in April, 1996, resulting in the loss of 25% of the filter medium. Presumably the malfunction was unrelated to the intermittent operation of the equipment. While the reasons were understandable the event nonetheless occurred and may well do so again. |

Given then, the multiple layers of justification and reassurance as to the quality of the treated water regarding all constituents except excessive levels of nitrate, it is understandably disappointing to note at page 4.19-7 that in the instance of dam failure "water with an elevated ammonia, hydrogen sulfide or cyanide concentration" might be released. This is pretty unappealing brew to be percolating into the groundwater basin from five large reservoirs barely 5 miles apart. |

**V. IRRIGATION AND ITS RELATION TO GROUNDWATER**

*The draft EIR/EIS fails to adequately address the adverse impacts of irrigation and the dimension of difficulty relating to institution of an irrigation program in the West County study area.* <sup>019</sup>

The draft EIR/EIS clearly establishes that irrigation is difficult to manage and will ultimately result in run-off and ponding which creates strong likelihood of adverse impact upon groundwater basins.

The EIR/EIS devotes much attention and detail to a comprehensive irrigation program <sup>020</sup> for the West County. It envisions a massive conversion of thousands of acres of theoretically irrigable land from current low productivity dry farming to a version of "high tech" farming which assumes optimum performance by irrigators and optimum use of land for consumptive crops. In a word it assumes a lot.

It will be, in essence, the moral equivalent of a Cultural Revolution, Sonoma County style. Farm families, who for generations have milked cows, grazed beef or have raised feed crops will be expected/ encouraged/ to raise Brussel Sprouts and Broccoli. Where the rate of progress in this process is found to not fall within the bureaucratic comfort zone, someone from Santa Rosa may be expected to appear to "help" them more fully appreciate the beneficence they fail to apprehend.

*mgp*  
*UJR*

At Vol. VI, 3.1.1, Page 11, it is admitted that even with irrigation some crops will not do 021  
 well, due to climatic conditions. At 3.1.2, it states, " the shallow soils and generally poor  
 drainage conditions in the West County are not conducive for the deep rooting  
 requirements...", "...conditions are generally not suitable for most wine grade varieties  
 (of grapes) in the West County." ]

Similarly, at 3.2.1, it is stated, that prospects for raising alfalfa, an essential for the dairy 022  
 industry, is poor. There is high risk of crop failure or reduced yield, while cool summers  
 would make curing difficult. New techniques or varieties will be necessary before alfalfa  
 can be considered as a potential crop for wide spread use in the West County. ]

Medium Priority lands as described at Vol. IV, D-19, constitute the presumed bulk of 023  
 West County agriculture. Once committed to irrigated pasture, these could find that  
 planned upon water is unavailable due to the need of water dependent crops on High  
 Priority Land. Planning would become a nightmare. ]

It is represented that the application of irrigation water will be controlled to prevent its 024  
 migration below the root zone of irrigated crops. This is a practical impossibility.  
 Periodic, if inadvertent, over irrigation, badger holes, joints, fractures, fissures and sheer  
 lines will all contribute unavoidably to treated water percolating into the substrata. In  
 this regard, page 4.5-2 notes, "water recharges an aquifer through.....irrigation and other  
 sources by entering the ground and moving downward through zones of aeration and into

MJP  
 U.S.



the zone of saturation." Again, at page 4.5-15, "Groundwater, particularly in the shallow 024 (cont.) zones, may be influenced by agricultural use of land (i.e. misuse of irrigation). | -

At Vol. VI. 4.0, page 47, it is indicated that an average of 20 inches (elsewhere, as much 025 as 24) inches of water per acre per year consumptive water use is anticipated for thousands of acres of the West County study area. This is an immense rate of application to even portions of the area that routinely sees intermittent flooding in low lying areas at much lower rainfall levels notwithstanding normally long, dry summer conditions. Experience demonstrates that the soil saturates readily. The West County region will likely not be able to avoid a variety of saturation situations and effects given normal winter rainfall and the rates of summer-fall irrigation anticipated in the EIR. |

At Vol. IV. D-19, page 24-25, it is stated that application of water evenly and uniformly 026 over all parts of a field and at a frequency less than the smallest soil infiltration rate is difficult to achieve. Over irrigation may occur as a result and produce increased run-off or deep percolating and discharge to perching layers.

The results of this could be an entirely new layer of expensive infrastructure. At Vol. IV, D-19, page 13 one finds, "Problem soils may readily develop perched water table and require new drainage ditches or drain tile installation. It is but a small additional step to find similar results in normal soils not properly irrigated. |

Where does this water, unaccounted for in the EIR end up? Certainly downgradient and quite likely in or on the land of an unwilling, non-irrigating neighbor. Such occurrences, over time do not seem the stuff of which congenial community relations may be fashioned. 027

At Vol. VI, 4.0, page 20, it is candidly admitted that the effect of irrigation runoff and related sub-surface flow may result in "adverse wet lands and water quality impact." Again, "Deep percolation....runoff (may) occur after water leaves the sprinkler head. (Vol. 4.0, page 19) |

These diametrically conflicting opinions/findings by presumably equally qualified experts operating independently in various disciplines creates serious doubt as to the intellectual honesty of some of the analyses advanced as mitigations and upon which far reaching consequences are premised. 028

Questions as to specious, disingenuous analysis is not lessened when, notwithstanding the citations noted above, one reads in the analysis of Impact 5.7.1, page 4.5-52, "accidental run-off or ponding from agricultural irrigation will be a temporary event that would not significantly alter groundwater quality."

Once again, the questions presents itself. Whose "significance?" Whose "groundwater?" |

*mg?*  
*62*

The irrigation problem is summarized at Vol. IV, D-19, Page 2, which notes, "unless 029 properly planned and managed, application of reclaimed water to previously non-irrigated lands has the potential to increase non-point source water pollution of a watershed area, including groundwater degradation and impacts to surface water quality in streams and rivers. Unmanaged irrigation of prior dry-farmed areas or range lands also has the potential to negatively impact seasonal wetlands and adjacent riparian areas, as well as downstream receiving waters, wetlands and estuaries. Such impacts are typically associated with poorly controlled irrigation or over-irrigation, in which water is applied at rates that exceed soil infiltration capacity or the water needs of the crop. The result is surface runoff of excess water or subsurface flow of water to local drainage ways and stream courses. The runoff or subflow may contain sediment, attached pesticides, nutrients and metals which may be native to the soil, occur in small quantities in the reclaimed water or come from applied agrochemicals or animal waste." ]

MGP  
ESP

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**VI. DAM FAILURE, INUNDATION**

030

*The draft EIR/EIS fails to comprehensively and adequately treat the seismic hazard associated with construction of the West County reservoirs on or near a number of identified earthquake faults.*

Given the seismic fault pattern of the West County it is manifestly irresponsible to construct massive earthen, high-rise reservoirs in that geological area.

No responsible public official involved in public works planning or construction can be unaware of the hazards presented from the earthquake potential of the California coastal region. Long inactive faults often activate spontaneously and previously unknown ones manifest themselves without warning and with stunning devastation. The Two Rock Valley is seriously faulted around, near and, in the case of the Two Rock reservoir, virtually under the proposed footprint. At Vol. VII, page 4-11 the draft EIR states "The Americano Creek and Bloomfield faults are considered potentially ACTIVE." A potentially active fault is a probably active one given the high likelihood of eventual seismic activity.

*mzp*  
*UP*

Any decision to build an earth fill dam on or near a potentially active earthquake fault is 030 (cont.)  
 an act of incomprehensible irresponsibility. This is exponentially compounded by an  
 apparent willingness to seriously consider building FIVE reservoirs in a comparatively  
 concentrated area of similarly seismic and geological character. |

| The inundation from the failure of any one reservoir would be catastrophic with water 031  
 depths reaching 80 feet in a worst case scenario at Two Rock. The Two Rock Volunteer  
 Fire Department, a primary response agency, would itself be inundated as would its  
 equipment, and, in all likelihood, a goodly number of it's trained personnel.

A combination of reservoir failures in a massive earthquake would similarly render other  
 communities' emergency response capability useless under an estimated 20 feet of water.  
 At page 4.19-7 a litany of disastrous consequences are set forth as the consequences of  
dam inundation. |

| Regrettably, a major earthquake in California, indeed seriously affecting the West 032  
 County study area, is not an abstract or remote future possibility. It is a near certainty.  
 These reservoirs, filled as indicated at page 4.19-7 with water "with an elevated  
 ammonia, hydrogen-sulfide or cyanide concentration" represents a catastrophe in need  
 only of a triggering cataclysm. The construction of such potentially devastating hazards  
 arguably verge on criminal negligence endangering schools, homes, residents and  
 facilities alike.

Nature has demonstrated a profound disregard for engineering wisdom throughout 032 (cont.) history. In 1912, the Titanic, specifically engineered to be unsinkable due to its compartmentalization, sank on its maiden voyage ironically due to the overwhelming application of the very force it was designed to withstand. In 1989 the Cypress Freeway in Alameda County collapsed during the violent October earthquake although meeting the engineering design criteria of its time when designed and constructed. Bridges have fallen, dams have broken, and experts have erred. ]

Dam failure hazard is defined in Vol. IV, D-16, Page 4, Table 3. "Significant hazard" is 033 defined as posing threat of life loss to a "few" people with "no urban development and no more than a small number of inhabitable structures." Table 4, Page 5, then rates four of the West County's five reservoirs as of "significant" hazard potential.

This totally fails to account for the 250 students and staff of the Two Rock School and the heavily populated and low lying training facilities located on the United States Coast Guard Training Center. Together these aggregate several hundred people in jeopardy. The authors certainly had an unconventional view of how many people are encompassed by the "few" standard and that of "inhabitable structure". ]

Vol. II, Fig. 4.3-1, illustrates the proximity of earthquake faults to the West County 034 reservoirs. These include the Dunham fault, Bloomfield Fault, and Americano Creek

Fault. The San Andreas fault, one of historical significance, and tragically active only 90 034 (cont.) years ago, passes a scant distance West of the study area.

The above faults define the boundary of the meeting of the Pacific and North American Tectonic Plates upon which rest the Pacific Ocean and the North American land mass, and which hold ongoing potential for massive earthquake activity.

By the standards set forth in Table 4.3-2, all three of the above faults, by virtue of rating in the Quaternary age (active during the last 2 million years) are considered potentially active (Page 4.3-39). This poses a curious contradiction to the observation at Page 4.3-5 to the effect that "neither of these faults (Dunham or Bloomfield) is considered to be active."

One could be expected to hope that the experts in such critical assessments could agree on the actual potential hazards. The lay reader should not be left in the seismic maze of having to extrapolate presumptive danger from such conflicting and subjective standards as "inactive", "not active", "potentially active", or "active".

What is disturbingly apparent however is that potentially active faults run near or under all reservoir sites in the West County area.

At Vol. XVI, U-2, Page 147, indication exists that experts, independent of the EIR/EIS study team, identified at least one secondary fault bisecting or running directly under the



proposed Two Rock Reservoir. Other faults are indicated at Page 4.3-39, to not be listed 034 (cont.)  
because of age, distance or seismic potential. ]

While clearly, some risk applies to nearly every human endeavor, one of our most 035  
important functions as a society is to balance reasonable risk against reasonable return  
for the common good. In the weighing process which attends the question of  
constructing the proposed reservoirs no justification can be found for such an  
unreasonably dangerous project. Reliance upon "one in a billion" rationale is an exercise  
in futility and obfuscation and has no legitimate role in attempting to justify an  
unacceptably hazardous undertaking. ]