CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
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ITEM TH 13

RECORD PACKET COPY

STAFF REPORT: REVOCATION REQUEST

Filed:	12/11/00
Staff:	J. Johnson
Staff Report:	1/25/01
Hearing Date:	2/15/01

APPLICATION NO.: R-4-96-025-A-3

APPLICANT: Mark Jason

PROJECT LOCATION: 20556 Betton Drive, Malibu/Topanga, Los Angeles County

DESCRIPTION OF PROJECT PREVIOUSLY APPROVED: Construct a new 4,800 sq. ft., 25 ft. high, two story single family residence, with swimming pool, and involves grading 696 cubic yards of material to construct residence. The project also includes improvements to a 1,790 ft. long access road involving paving, the installation of drainage devices, a water line, approximately 3,016 cubic yards of grading for this portion of the road improvements.

Additionally, the project was amended twice to include a below grade retaining wall (soldier pile design) with an 'Arizona' crossing, construct a larger three foot diameter culvert with rip rap dissipater, install erosion control swales along top of cut slopes, reduce approved thirty foot wide road to twenty foot wide except for turnouts, reduce approved grading from 3,016 cubic yards to 2,321 cubic yards on Betton Drive, Chard Avenue and Skyhawk Road.

DESCRIPTION OF AMENDMENT: Construct a water well, 8,000 gallon water tank, and fire hydrant with connecting piping to serve approved residence at 20556 Betton Drive. The applicant proposes to completely bury the water tank by excavating 150 cubic yards of material to be disposed at a disposal site located outside the coastal zone. The applicant proposes to landscape the tank area with native plants.

PERSON REQUESTING REVOCATION: Kay Austen, 2630 Tuna Canyon Road, Topanga, Malibu Area, Los Angeles County.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends that the Commission **deny** the request for revocation on the basis that no grounds exist for revocation under Section 13105(a).

SUBSTANTIVE FILE DOCUMENTS: Coastal Development Permits 4-96-025, 4-96-025-A-1, 4-96-025-A-3, Jason

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PROCEDURAL NOTE: The California Code of Regulations, Title 14 Division 5.5, Section 13105 states that the grounds for the revocation of a coastal development permit (permit amendment) are as follows:

Grounds for revocation of a permit shall be:

a) ***Intentional inclusion of inaccurate, erroneous or incomplete information in connection with a coastal development permit application, where the Commission finds that accurate and complete information would have caused the Commission to require additional or different conditions on a permit or deny an application;***

b) ***Failure to comply with the notice provisions of Section 13054, where the views of the person(s) not notified were not otherwise made known to the Commission and could have caused the Commission to require additional or different conditions on a permit or deny an application. 14 Cal. Code of Regulations Section 13105.***

REQUESTOR'S CONTENTION:

The request for revocation contends that grounds for revocation in Section 13105(a) exist because the applicant submitted inaccurate, erroneous or incomplete information to the Commission in the coastal development permit (permit amendment) application. The contentions raised by the request include the following:

1) The applicant submitted inaccurate, erroneous or incomplete information on three issues, and the submittal of accurate information would have led the Commission to deny the project. The first issue is that inaccurate information regarding daily water usage was submitted to evaluate impacts of the wells on the water table. The second issue is that the applicant omitted critical information that indicated the applicant does not have a viable source of water from a well, as nearby wells are poor water producers and two wells are dry. The third issue is that an inaccurate site model and map was submitted that misstated the nature of the shallow aquifer, omitting existing wells, springs, blue-line streams and Tuna Canyon Creek. (See Exhibit 1.)

The request for revocation does not assert that grounds for revocation in Section 13105(b) exist.

MOTION : ***I move that the Commission grant revocation of Coastal Development Permit Amendment No: 4-96-025-A-3.***

STAFF RECOMMENDATION:

The staff recommends a **NO** vote on the motion. Failure of this motion will result in denial of the request for revocation and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

RESOLUTION TO DENY REVOCATION:

The Commission hereby denies the request for revocation of the Commission's decision on Coastal Development Permit Amendment No. 4-96-025-A-3 on the grounds that there is no:

(a) Intentional inclusion of inaccurate, erroneous or incomplete information in connection with a coastal development permit application, where the Commission finds that accurate and complete information would have caused the Commission to require additional or different conditions on a permit or deny an application.

II. Findings and Declarations

The Commission hereby finds and declares as follows:

A. Project Description and Background

On November 16, 2000 the Commission approved, with conditions, Coastal Development Permit Amendment No. 4-96-025 (Jason) to construct a water well, 8,000 gallon water tank, and fire hydrant with connecting piping to serve an approved residence at 20556 Betton Drive. Under the Permit Streamlining Act, the Commission had to make a decision on the application for amendment at this November 2000 hearing. The applicant proposed to completely bury the water tank by excavating 150 cubic yards of material to be disposed at a disposal site located outside the Coastal Zone. The applicant proposed to landscape the tank area with native plants. The applicant has submitted a landscape plan to comply with Special Condition Number Ten. This Coastal Permit Amendment has not been issued as a result of staff receiving this revocation request on December 11, 2000.

The subject site is located on a 2.6 acre lot on Betton Drive which connects to Chard Road (also known as Hawks Nest Trail) and Skyhawk Lane, all private roads, to Tuna Canyon Road, a public road. The site is located within a 16 lot subdivision created in the 1960's; the subject lot is the only lot with a Commission approved residence. All adjoining lots are vacant.

B. Grounds for Revocation

Section 13105(a)

Pursuant to 14 California Code of Regulations (C.C.R.) Section 13108, the Commission has the discretion to grant or deny a request to revoke a coastal development permit if it

finds that any of the grounds, as specified in 14 C.C.R. Section 13105 exist. 14 C.C.R. Section 13105 states, in part, that the grounds for revoking the permit shall be as follows: (1) that the permit application intentionally included inaccurate, erroneous or incomplete information where accurate and complete information would have caused the Commission to act differently; and (2) that there was a failure to comply with the notice provisions of Section 13054, where the views of the person(s) not notified were not otherwise made known to the Commission and could have caused the Commission to act differently.

The South Central Coast District office has received a written request for revocation of the subject Coastal Development Permit Amendment from Kay Austen, a resident in the vicinity at 2630 Tuna Canyon Road, Topanga/Malibu. The request for revocation is based on the grounds that the applicant submitted inaccurate, erroneous or incomplete information on three issues, and the submittal of accurate information would have lead the Commission to deny the project. The first issue is that inaccurate information regarding daily water usage was submitted to evaluate impacts of the wells on the water table. The second issue is that the applicant omitted critical information that indicated the applicant does not have a viable source of water from a well, as nearby wells are poor water producers and two wells are dry. The third issue is that an inaccurate site model and map was submitted that misstated the nature of the shallow aquifer, omitting existing wells, springs, blue-line streams and Tuna Canyon Creek. (See Exhibit 1.)

The revocation request does not suggest that the subject permit should be revoked on grounds that there was a failure to comply with the notice provisions of Section 13054. Therefore, the revocation request for the subject permit will only be discussed in relation to grounds of Section 13105(a). Grounds for revocation in 13105(a) contain three essential elements or tests that the Commission must consider:

a. Did the application include inaccurate, erroneous or incomplete information relative to the coastal development permit?

b. If the application included inaccurate, erroneous or incomplete information, was the inclusion intentional (emphasis added)?

c. If the answer to a and b is yes, would accurate and complete information have caused the Commission to require additional or different conditions or deny the application?

The request for revocation raises three issues relative to whether the applicant submitted inaccurate, erroneous or incomplete information, and the submittal of accurate information would have lead the Commission to deny the project; these issues will be address one by one.

1. Daily Water Use

The first issue is that inaccurate information regarding daily water usage was submitted to evaluate impacts of the wells on the water table. Ms. Austen alleges that the figure of 400 gallons per day of residential water use is low; 2,000 to up to 3,750 gallons of water

per day may be used if the water is treated; and that the City of Malibu could not have provided an estimate of 400 gallons per day. The applicant's response provided by his geologist, Scott Moors, is that residential water usage is typically 400 gallons per day (Exhibit 2). Mr. Moors states that this figure was confirmed with Larry Young, City of Malibu, Department of Environmental Health, as a reasonable estimate. The application also cites the City's 1992 Malibu Wastewater Management Study that determined that average household usage (indoor and outdoor) was 425 gallons per day. "Residential End Uses of Water", a study dated 1999 and sponsored by the American Water Works Association Research Foundation, found the average residential use was about 400 gallons per day (averaging all locations surveyed) and was about 600 gallons per day in Las Virgenes, also located in the Santa Monica Mountains of Los Angeles County. Ms. Austen has provided no direct evidence or documentary source for her allegation that 400 gallons per day water usage is too low. Therefore, the Commission finds that the evidence does not demonstrate that the applicant provided inaccurate or incomplete information in connection with the application.

The applicant has provided a response to the allegation that water use will be greater because of the need for treatment. The applicant's geologist indicates that if treatment of indoor water is necessary (water used outdoors does not need to be treated), the indoor water use increases 20 to 60%. The applicant's geologist asserts that this would increase Jason's indoor water use by 50 to 145 gallons per day, for total usage with treated water of 450 to 545 gallons per day. Alternatively, using the estimate of 320 gallons per day of indoor water use that the applicant previously provided to the Commission, the increase due to treatment would be 64 to 198 gallons per day, for total usage of 464 to 598 gallons).

Even if a higher estimate of water usage is appropriate, there is no evidence that the applicant or his geologist intentionally provided inaccurate information. If the higher estimate of water usage is accurate, i. e. even up to 598 gallons per day, there is no evidence that the applicant or his geologist knew that treatment was necessary and intentionally withheld the information from the Commission. In addition, there is no evidence that it was not reasonable for the applicant to rely on the estimate of 400 gallons per day, since this was set forth in a Malibu water use study and viewed as reasonable by the Malibu Department of Environmental Health. Thus, there is no evidence that the applicant *intentionally* provided incorrect information.

According to Mr. Moors, the applicant's geologist, the purpose of his discussion that uses the estimate of 400 gallons per day, is to present a qualitative model demonstrating minimal impact of developing a water well on a large parcel and its effect on the groundwater table. Even if the water consumption figures change somewhat, it does not change the conclusion that the potential impact on flora or fauna is small as the water table is relatively deep and net groundwater extraction is small. The Commission agrees with this analysis. Furthermore, the increase in indoor water use does not affect the net loss of groundwater caused by the well, because the indoor water will recharge to the groundwater. Therefore, a greater amount of indoor water use does not have the potential to impact the level of the water table or the amount of water present in nearby creeks. The person requesting revocation has made assertions about the amount of water use by other people, but has not provided any documentary

evidence to support these assertions. She has not provided any documentary evidence showing that the amount of outdoor water use (which does have the potential to lower the water table) will be greater than the amount that was estimated by the applicant.

Finally, even assuming, for the purpose of this analysis, that the applicant did intentionally provide inaccurate or incomplete information, the correct information was provided in letters sent to the Commission prior to the hearing and in testimony at the hearing. Therefore, the Commission was able to consider the correct information prior to making its decision. Since the Commission already had this information, a finding cannot be made that accurate and complete information would have caused the Commission to require additional or different conditions or to deny the application.

For the reasons stated above, the Commission finds that assuming, for the purpose of this analysis, that the applicant intentionally misrepresented the amount of water use, the correct information would not have caused the Commission to impose additional or different conditions or deny the permit amendment.

2. No Viable Source of Water

The second issue is whether the applicant omitted critical information that indicated the applicant does not have a viable source of water from a well, as nearby wells are poor water producers and two wells are dry. Ms. Austen alleges that five water wells are poor producers, one well is now dry, another is unusable, and that Mr. Moors stated at the hearing that these wells run dry in summer months. Ms. Austen concludes that, it is not possible for Mr. Jason to landscape ½ acre of land and still have a viable well. The applicant's geologist responds that the well records discussed in his report were cited as a reference for depth to groundwater in the project area. Since well logs are not public information, according to California Water Code Section 13752, only two wells were discussed in the geology reports provided by the applicant, as the owners provided the information to Mr. Moors. Mr. Jason states that only these two wells are located within the Tuna Canyon Watershed, the others are outside this watershed. Staff's review of the watershed boundary indicates that Mr. Scipioni's residence at 20400 Skyhawk Lane and Mr. and Ms. Jobbins residence at 20370 Skyhawk Lane are located within the Tuna Canyon Watershed boundary.

Mr. Moors further responds he did not state that "wells run dry in summer months" at the hearing, but rather said "bedrock wells will frequently pump dry and then recharge". A well may be pumped at 5 gallons per minute, while it recharges at 3 gallons per minute, leading a well to "run dry" temporarily, until it recharges from groundwater flows. The Commission staff listened to the tape of the hearing and the review confirms Mr. Moors' recollection.

Mr. Jason responds that regarding the allegation that one well is dry, Dr. Zanini's well on property at 20300 Skyhawk Lane, is not being used because his generator powering his pump was stolen and not replaced. Mr. Jason's representative, Ms. Valente, states that she spoke to Dr. Zanini who informed her that he has not used his well for 3 – 4 years since his generator was stolen. According to Ms. Valente, Dr. Zanini stated his well performed perfectly prior to the loss of the generator. Dr. Zanini's well is located

just outside the Tuna Canyon Watershed, therefore, the groundwater source may or may not be located within the same watershed as the subject well. No evidence was submitted by Ms. Austen to support her assertion that the Jobbins' well went dry for six months after being used to irrigate a new lawn. Accordingly, the Commission finds that the person requesting revocation has not established that the applicant provided inaccurate or incomplete information regarding nearby wells.

Even if, assuming for the purpose of this analysis, incomplete or misleading information was provided by the applicant, there is no evidence that it was provided intentionally. In addition to the information about the wells discussed above, correspondence dated November 7, 2000 was received from Mr. Scipioni, whose residence is located at 20400 Skyhawk Lane, asserting that he has a water well that is having difficulties because the aquifer is drawn down. Even if the Jobbins' well went dry for six months, the Zanini well is not usable, and the Scipioni well (and other nearby wells) are having difficulties, there is no evidence that the applicant or his geologist was aware of this information. As noted above, this type of information concerning private water wells is not available to the public. Therefore, there is no evidence that the applicant *intentionally* submitted inaccurate or incomplete information regarding any of the nearby wells.

The person requesting revocation also asserts that it is not possible for a well on Mr. Jason's land to produce sufficient water for both domestic use and to landscape ½ acre of land. Staff's review of the applicant's approved landscaping plan indicates that between about 1/4 to 1/3 of an acre of area surrounding the residence and garage will be cleared for fuel modification purposes and replanted with native plants to control erosion. Generally speaking, native landscaping usually needs only a couple of years of irrigation to become established and once established little or no irrigation is needed to maintain native plants. If Jason's well cannot provide the water necessary for irrigation of the native landscaping during the first couple of years, he has the option of constructing a water line extension to supply his residence with public water. The water line extension to serve Mr. Jason's residence was previously approved by the Commission in Coastal Permit No. 4-96-025. If the well does not provide adequate water to irrigate the native landscaping and/or provide water for indoor use, the available evidence does not indicate that any adverse impacts on water quality, aquatic resources or sensitive habitat will result. As explained above, Mr. Jason already has approval to use an alternative water source to provide the water needed for his development.

Therefore, even assuming, for the purpose of this analysis, that the applicant intentionally provided inaccurate or incomplete information about nearby wells or the ability of a well on his property to produce the required amount of water, the accurate information would not have caused the Commission to impose additional or different conditions or to deny the permit amendment.

In addition, assuming, for the purpose of this analysis, that the applicant intentionally provided inaccurate or incomplete information regarding the issues addressed above, the correct information was provided in letters sent to the Commission prior to the hearing and in testimony at the hearing. Therefore, the Commission was able to consider the correct information prior to making its decision. Since the Commission

already had this information, a finding cannot be made that accurate and complete information would have caused the Commission to require additional or different conditions or to deny the application.

3. Inaccurate Site Model and Map

The third issue is whether an inaccurate site model and map was submitted that misstated the nature of the shallow aquifer, omitted existing wells, springs, blue-line streams and Tuna Canyon Creek.

Ms. Austen alleges that an inaccurate site model was submitted misstating the nature of the shallow aquifer and a map was submitted that omits existing wells, springs, and streams. In addition, Ms. Austen asserts that a report submitted by Mr. Chandler proves the inaccuracy of Mr. Moors' report. Mr. Chandler contends that additional information is needed to more accurately analyze the groundwater regime near the site and new monitoring wells, pump tests, and other investigations would add to the understanding of the hydrogeologic setting. Mr. Moors responds that the complex nature of the bedrock site was discussed in his report and in lieu of attempting to model complex geologic conditions, he presented a qualitative model demonstrating minimal impact that the proposed houses and wells will have on the environment. Mr. Moors states that Commission staff concurred with the qualitative evaluation as appropriate and reasonable. Mr. Moors states that he walked the site in April within 24 hours of significant rainfall. In September, the dry season, he also walked the site and did not observe any springs or stream flows in the immediate vicinity of the site. The response does not address whether or not springs or stream flows were observed during the April site inspection. Regarding the map, the staff report for Coastal Permit Amendment No. 4-96-025-A-3 includes a map of the area with the two wells (Jobbins and Zanini) indicating homes supplied by a well and seven homes supplied by imported water

Although Mr. Chandler provides some general information on geologic complexities of the area, he provides no concrete data, such as geologic maps and cross sections, borings, rock descriptions, or measured values of porosity, permeability or transmissivity. Any of these types of information would have been valuable in evaluating the utility of the simple model put forth by Mr. Moors. Mr. Chandler draws analogies between the site and fractured bedrock aquifers in the Santa Susana Mountains and in the San Jose Hills portion of West Covina. Although these analogies may be useful, they do not provide site-specific information helpful in evaluating this project. Staff conferred with Mr. Moors on the appropriateness of his site model. Although it was recognized by staff that the model was simplistic, the conservative assumptions built into it would tend to overestimate the lowering of the water table provided that conservative values of porosity (whether fracture or intergranular) were chosen. Mr. Moors conferred with staff at some length regarding appropriate porosity values, and staff finally accepted his value of "the low 20's." Although it is possible that this value is too high, it was the best value known to staff at the time and there is no evidence that Mr. Moors intentionally provided an inaccurate value or omitted contradictory data. Further, the Commission was aware of the limitations of the site model when it reached its decision.

Therefore, the Commission finds that the assertions in the revocation request raise questions, but do not provide evidence demonstrating that the information provided by the applicant in connection with the application was inaccurate, erroneous, or incomplete.

The second element of Section 13150 (a) consists of determining whether the inclusion of inaccurate, erroneous or incomplete information was intentional. As indicated above, there is no evidence that information submitted for the subject permit amendment is inaccurate, erroneous, or incomplete. Even assuming for the purpose of this analysis that inaccurate information was provided, there is no evidence that the applicant *intentionally* provided inaccurate information. As such, the Commission notes that no new information has been provided as part of the revocation request which illustrates that the applicant intentionally provided information that is inaccurate, erroneous, or incomplete. Therefore, the Commission finds that there was no intentional inclusion of inaccurate, erroneous or incomplete information with the application submittal for the subject Coastal Development Permit Amendment.

The final element of Section 13105 (a) for the Commission to consider is whether accurate and/or complete information would have resulted in the requirement of additional or different conditions or the denial of the application. As indicated above, there is no evidence that information submitted for the subject permit is inaccurate, erroneous, or incomplete. Assuming, for the purpose of this analysis, that the applicant intentionally submitted inaccurate, erroneous or incomplete information, the evidence currently available does not indicate that the Commission would have required additional or different conditions of the permit or denial of the application by the Commission.

Finally, assuming, for the purpose of this analysis, that the applicant did intentionally provide inaccurate or incomplete information, the correct information was provided in the letter Mr. Chandler sent to the Commission prior to the hearing and in testimony at the hearing. The Commission was able to consider the information provided in the letter and testimony at the hearing prior to making its decision. Since the Commission already had this information, a finding cannot be made that accurate and complete information would have caused the Commission to require additional or different conditions or to deny the application.

C. Conclusion

For the reasons set forth above, the Commission finds that the grounds for revocation contained in Section 13105(a) are not satisfied, and as mentioned, the request for revocation does not assert that grounds for revocation of the subject permit exist in Section 13105(b). Therefore, the Commission finds that the revocation request should be denied.

9-page FAX followed by mail copy

Fax Copy Rec
in S.F. 12/5/00

December 4, 00

Mr. Peter Douglas, Executive Director
California Coastal Commission

RE: Revocation of Jason Permit # 4-96-025-A3

Dear Mr. Douglas:

On November 16, 2000, the Commission, under pressure from the Permit Streamlining Act [though Mr. Jason had requested some of the postponements himself], approved a permit amendment for Mark Jason to drill a well. He has not yet begun to drill. Therefore, permit # 4-96-025-A3 should be revoked as soon as possible: the Commission was given a demonstrably false, incomplete and inaccurate geology report by Mr. Jason's geologist, Scott Moors. Mr. Moors fabricated figures for water usage and subsequent calculations; concealed the existence and precarious condition of five neighboring wells; omitted existing well data and performed no well studies; utilized a faulty site model that misstated the nature of a fragile and shallow aquifer; and omitted consideration of existing springs, pollution, and treatment of well water. When confronted at the hearing, Mr. Moors made some surprising admissions, yet also continued to mislead the Commission.

Water Usage: Mr. Moors submitted a 5/31/00 report with three later clarifications for the benefit of Mr. Johnsson, the Commisson's geologist. The foundation of Mr. Moors' entire report is this claim: **"Water demand for a typical single-family residence is approximately 400 gallons per day . . . . As shown below [in a table], of the 400 gallons of well water extracted per day, approximately 320 gallons will recharge to the groundwater. Therefore, net groundwater withdrawal at the site should be approximately 80 gallons per day."** (p. 2). He estimates a theoretical cumulative drawdown of the water table of 6.9 feet over a 50 year period, but adds that with inflow from the surrounding area, the drawdown would be "significantly less"(p. 3). He concludes that not only will Mr. Jason's well have a "negligible influence" on the water table, so will 10 -14 additional wells and septic tanks (8/25 letter). Despite repeated requests from Mr. Johnsson for more information, Mr. Moors never changes these figures and conclusions.

At the 11/16/00 hearing, Mr. Moors defended the incredibly low figure of 400 gallons per day by claiming the city of Malibu gave him that figure. That is false. I called the city of Malibu water department, 310-456-6621, to verify his account and was told that that no such figure exists. According to Ken Westphall, Water Supervisor for the city of Malibu and Pete Spandau, his superior, who is Supervisor of Civil Engineering for L.A. County, it is impossible to measure average daily use of a single-family household in Malibu. [Even the clerk who answered the phone told me this.] Why? Because much of the water usage in Malibu is measured by master meters, not individual meters, and all the meters vary greatly in size.

EXHIBIT NO. 1
APPLICATION NO. 4-96-025-A3
Austen & Chandler
Letters 1-9

The following all use master meters: apartments and condominiums; mobile home parks, RV parks; and most importantly, Pepperdine University, the biggest water customer in Malibu. Mr. Westphall said that some of the larger meters in Malibu are not accurate, plus no one knows how much water gets lost in the system. He said that with water meters ranging from ¾ inches, 1, 2, 4, 6, 8 to 12 inches, water use in Malibu is a "guessing game." Mr. Westphall's superior, Mr. Spandau, confirmed his analysis. Mr. Spandau went on to say that **the only figures he possessed** were how much water is sold per year to how many meters.

It is clear that Mr. Moors fabricated this figure and made it the basis of all his reports/letters in order to paint a rosy picture for the Commission of "no take, no harm." Significantly, when confronted at the hearing, Mr. Moors backed off his fictional figure. He admitted that usage could be "1600 gallons a day"--**four times** his fictional estimate. In fact, as Mr. Scipioni told the Commissioners, existing city water bills from nearby neighbors who are simply maintaining landscaping, not installing it, shows usage at 2,000 to 2500 gallons daily—and that is without the swimming pool that Mr. Jason proposes. Mr. Westphall, Water Supervisor for the city of Malibu, without knowing about the large size of Mr. Jason's house or his swimming pool, volunteered that 2600 gallons a day is a much more realistic figure for a single-family residence. No wonder Mr. Moors created his own figures rather than submit realistic water usage figures.

Mr. Moors also conveniently omitted the fact that well water has to be treated to make it suitable for consumption. That treatment requirement increases the take by **50 percent.** A yield of 2,500 gallons, for example, requires another 1,250 gallons to treat it for household use. We are now up to 3,750 gallons a day, almost **ten times** Mr. Moors' invented figure.

The true figures reveal disastrous consequences to a shallow aquifer if this development is allowed to proceed. At a minimum, Mr. Jason's permit should be revoked until a new independent study, using correct water usage figures for a 5,000 sq. ft. house with swimming pool and landscaping ½ acre of raw land, plus data from the performance of existing wells, can be conducted. Even with Mr. Moors' fictional low figures, Mr. Johnsson still spent most of his initial two-page letter repeatedly expressing concern about the drawdown of the aquifer and streams, stating more study was needed.. In response he was given figures and impressive looking tables for Topanga Creek, which he naturally dismissed as irrelevant. Significantly, it took four separate submissions from Mr. Moors to persuade Mr. Johnsson to finally sign off on his deceptive arguments. Had he been told that typical water usage was almost ten times the figures he received, with a corresponding depletion of the water table, it is inconceivable that he would have approved this project.

Other Wells: Mr. Moors omitted critical information about five existing wells that proves Mr. Jason will not have a viable well: these wells are poor water producers; one provides only enough water for household use—no outdoor watering can be done. (A sixth well was drilled 700 feet down without finding water.) Mr. Moors cites the depth of water of two wells, the Zanini well and the Frayne-Jobbins well. Yet he concealed the most important facts about them: the water from the Zanini well is unuseable; Mr. Zanini buys his water. The Frayne-Jobbins well went dry after a small, new lawn was watered, causing a

neighboring well to go dry temporarily too. Like Mr. Zanini, Mr. Jobbins also buys his water.

Once we brought out the truth at the hearing, Mr. Moors still did not level with the Commissioners, assuring them that "these wells all recharge." It's been six months and Mr. Jobbins' well has **not** recharged! Curiously, Mr. Moors did admit at the hearing that "these wells run dry in the summer months." (!) Had Mr. Moors told the truth about existing wells in his report, staff and the Commissioners would have realized that there is no way Mr. Jason can landscape a ½ acre of raw land for erosion control and still have a viable well. The water simply isn't there. He will also be unable to defend his property and that of his neighbors against fire.

Opposing Geology Report: Other crucial information that staff and Mr. Johnsson did not see is the five-page report of geologist, Phillip Chandler, which I enclose. Mr. Chandler faxed his report to Mr. Johnsson at the Ventura office on November 13 or 14th, but Mr. Johnsson did not appear to have received it. Mr. Chandler's credentials are impeccable: he is an environmental geo-scientist, i.e., he holds separate registrations as a geologist and geophysicist plus certification as an engineering geologist. Mr. Chandler's specialty is migration of toxins and pollution through geologic material; he addresses the crucial issue of septic tank pollution at length (p.4). (There is not one sentence in Mr. Moors' four letters on the pollution issue; he furthers his client's interests by discussing septic tanks only insofar as they recharge the aquifer.) Mr. Chandler resides in Topanga and knows it well. Unfortunately he did not have the access to Mr. Johnsson that Mr. Moors did.

Unlike Mr. Moors, Mr. Chandler walked the site; learned about existing springs; saw the five existing wells; studied well data provided by well owner, Vince Scipioni; studied geologic maps and a 1999 report by Mr. Jason's previous geologists that contradicts Mr. Moors. He also studied Mr. Moors' report and found it wildly inaccurate. For example, Mr. Chandler states that the site consists of dipping fractured bedrock of low porosity and thus very limited available water, while Mr. Moors' inaccurate site model posits just the opposite: a flat-lying aquifer with a smoothly descending water table—or, as Mr. Moors stated at the hearing, a bucket in which one simply has to insert a straw. Nothing could be further from the truth, as Mr. Chandler makes abundantly clear. Mr. Johnsson also criticized Mr. Moors' site model as "rather simplistic" (p. 2, 8/4/00 letter).

Roger Pugliese, Chair of Topanga Association for a Scenic Community, urgently reminded the Commission in his letter that approval of Mr. Jason's permit was totally conditioned on his obtaining adequate utilities from the county, particularly in respect to fire and erosion concerns. Mr. Jack Ainsworth unequivocally confirmed this fact at the hearing. Drilling a well that will de-water the wells of existing residents and will soon go dry itself does not meet the conditions of this permit and jeopardizes the safety of residents. Mr. Jason has permission for county water, which he finds too expensive. But only county water guarantees that he will be able to meet the conditions of his permit: protection from fire and the required landscaping of ½ acre of raw land for erosion control.

In sum, the Commission has received an incomplete and deceptive, done-for-profit report with demonstrably false figures and conclusions. Mr. Moors invented the figure of 400 gallons a day average use to assure the Commission that there would be "no take, no harm" to the water table, springs, and creek of Tuna Canyon. Since this fictional figure forms the basis for all his calculations, he has utterly invalidated his own report. Mr. Chandler's detailed report also proves the inaccuracy of Mr. Moors' report. Had Mr. Johnsson and the Commission known that Mr. Moors made up his figures; omitted five wells and their problems; submitted an inaccurate site model; completely misstated the nature of this shallow aquifer; and submitted a map which omits existing wells, springs, blue-line streams, and Tuna Canyon creek, it is safe to say they would have rejected this amendment.

Mr. Jason has not begun to drill his well yet. On behalf of the Tuna United Neighborhood Association and Topanga Association for a Scenic Community, I respectfully ask the Executive Director to revoke this permit amendment.

Sincerely,

Kay Austen, Ph.D.
2630 Tuna Canyon Rd.
Topanga, CA., 90290
(310) 455-1611

Fax Copy Rec
in S.F. 12/5/00

November 13, 2000

Philip B. Chandler
2615 Marquette Drive
Topanga, CA 90290

California Coastal Commission
80 South California Street, Suite 200
Ventura, CA 93001

SUBJECT: STAFF REPORT ON PROPOSED COASTAL PERMIT AMENDMENT APPLICATION NO: 5-96-025-A-3 (PROJECT LOCATED AT 20556 BETTON DRIVE, MALIBU, LOS ANGELES COUNTY)

Commission Members:

I am a resident of Topanga and a former board member of the Topanga Association for a Scenic Community (TASC). I am also an environmental geoscientist (holding separate registrations as a geologist and geophysicist and certification as an engineering geologist). I worked for the Los Angeles Regional Water Quality Control Board (LARWQCB) from 1986 to 1993 identifying sources of contamination in the San Fernando and San Gabriel Superfund sites and from 1993 to present at the Department of Toxic Substances Control (DTSC) as a supervising hazardous substances engineering geologist.. This letter is written as solely a private citizen and in no way or under any circumstances represents any of the agencies that I work or have worked for. Due to previous commitments to the U.S. Environmental Protection Agency, I am unable to attend the Commission's meeting, so I have written this letter to convey my concerns.

As a member of TASC, I was asked to examine that section of the subject Staff Report pertaining to construction of a well on the project property. My initial reaction is that this report fails to provide an adequate site model and is therefore unlikely to accurately represent the hydrologic conditions of the area. Potential adverse effects on existing upgradient wells and downgradient springs are not adequately evaluated. The Staff Report evaluation treats a relief-driven dipping fractured bedrock aquifer as if it were an unconfined flat-lying unconsolidated material aquifer out in the middle of the San Fernando basin. It neglects the need to develop site-specific information, failing even to reference well logs and well behavior from the existing wells in the area. On one hand this could result in over-estimating the water available for the proposed development or on the other underestimating the threat of adversely affecting water supply to existing wells which may be upgradient. The Staff Report fails to acknowledge that there are at least five wells---not two as cited--- in the area upon which existing homes appear to depend for water. The issue of septic system recharge to the aquifer is problematic both from the overly simplistic assumptions for calculation of recharge and from a realistic water quality perspective---no mention is made of dissolved constituents such as nitrate and various household chemicals being added to the putative recharge and its effect on downgradient springs or any recovered use at the applicant's site. The conclusion that springs along the two upper tributaries to Tuna Canyon Creek cited in the Staff Report (or indeed along Tuna Canyon Creek itself) will

not be impacted is not adequately supported---such springs have not even been located and shown on the applicant's map---nor are shown in the Staff Report. For example, one could postulate a situation in which the septic system bottoms out in a dipping permeable unit which is separated from a groundwater-bearing permeable by a low permeability unit(s) and that the recharge is to the unsaturated zone---creating a perched zone--- rather than to the ground water (until some place downgradient where sufficient leakage across the unit could occur or where the lower permeability unit would "daylight" creating a new spring (but perhaps drying up an older one). Additional data and information should be required of the applicant. At a minimum, the area downslope to Tuna Canyon Creek---including the two upper tributaries--- needs to be examined in the field for evidence of springs.

I supervised staff providing geologic support and regulatory oversight on the Rockwell Santa Susanna Field Laboratory (SSFL) site in Santa Susanna Mountains for a number of years. The primary aquifer is the saturated portion of the Chatsworth formation, mostly a massive sandstone onsite---fracture space controls the amount of water which can be pumped from any given area within the 3000-plus acre site. Extraction was originally for water supply but is now for groundwater cleanup. This site is analogous to the Santa Monicas---in other words once through any unconsolidated material, storage is provided primarily in fracture-volume and secondarily by pore-volume. The calculations provided in the attachments to the Staff Report appear to be based on pore-volume estimates---as if in an aquifer comprised of unconsolidated geological materials. This approach is insufficient and the applicant should be required to provide a better approach to assuring that production from the site will not affect existing wells. In point of fact, water at Mr. Vince Scipioni's well---which appears to be along strike from the project site---is reportedly drawn from some 90 feet of shale (based on the driller's log) which has production characteristics different than those assumed by the staff geologist. Neither the applicant's consultant nor the staff geologist have assumed production from a lower permeability unit like this. Therefore, the various calculations in the Staff Report are not likely to be representative the site situation. Well logs from the existing wells should be examined by the staff geologist, the site model re-evaluated, and the applicant asked to provide a more realistic evaluation of the aquifer. Pump and packer tests in wells at SSFL revealed lateral and vertical variations in hydraulic conductivity ranging over 4 orders of magnitude demonstrating that the lithologic units of the Chatsworth Formation could significantly affect groundwater flow there. Why would this be different in the Sespe Formation at Tuna Canyon?

I currently oversee the post-closure care of the closed BKK Class 1 Landfill which lies in the San Jose Hills portion of West Covina. Hazardous wastes were disposed there for a number of years. Contamination underlying this site exists within dipping sandstone units intercalated between shales and conglomerates. The site has a variable degree of fracturing and is cut by a number of faults. The control of flow by the dipping units has been determined to be crucial in evaluating the migration of contamination. The Staff Report does not consider such control at all in determining that neither neighboring wells nor springs will be impacted by this additional well---and others assumed to be an extension of this project. The attachments to the Staff Report mention that "Bedding near the site is folded with generally north dips at angles ranging from 20 to 30 degrees." and consists "...primarily of sandstone, pebbly sandstone, conglomerate and mudstone beds.", but the Staff Report appears to fail to take this any further and evaluate the site geotechnical reports or even the general geology maps with respect to the characteristics of

the putative fractured bedrock aquifer and possible relationships to existing nearby wells and to those springs along Tuna Canyon Creek and its tributaries.

Most of concern is that there appears to have been no effort to consult the surrounding community members with respect to existing well logs and experience with well performance. Existing wells are as close as 1200 feet from the property line, the staff geologist failed to require the applicant to collect existing well information. Given these wells, it is also reasonable for the Commission to require the applicant to perform something as simple as slug tests in the existing wells in order to extrapolate aquifer parameters to the project site (based on discussions with Mr. Vince Scipioni more sophisticated step draw-down tests would probably dewater the well very early.). Instead the Staff Report depends on the applicant's consultant assuming aquifer characteristics that do not appear to match the existing situation. The May 2000 technical report by Bing Yen & Associates appended to the Staff Report has two cross sections which treat the underlying aquifer and vadose zone materials as uniform and show a water table smoothly descending to Tuna Canyon Creek and a tributary. This is an over-simplification neglecting the dipping fractured bedrock character of the aquifer. In fact a fractured bedrock model should be applied but the applicant has not provided sufficient data or information. The September 10, 1999, report by Geosystems for the applicant on a proposed retaining wall contains shallow cross sections which project bedding to 140 feet below ground surface (bgs). The Commission should similarly require an adequately scaled geologic map to serve as the base map and more representative cross sections for the hydrologic evaluation from the applicant's consultant. The cross sections should be orientated with respect to both slope and bedding in order to better evaluate those factors controlling the flow regime. Flow is probably cross-strike (or cross-dip) and slope intercepts with saturated beds may in fact occur above base level of the stream or tributaries. This clearly needs adequate evaluation.

The proposed well is appears to be located topographically lower than the Mr. Scipioni's well and along strike from it at a 1200 foot lateral distance from Mr.Scipioni's well (his house is incorrectly indicated as being on imported water), as well as at least three other wells, is not portrayed on the staff map. Given the cross sections in the Geosystem report, bedding dips southward---out of slope---which is necessitating the proposed soldier piles--- and the attached geologic map indicates possible NE strikes. This means that if the flow is controlled along strike (in reality slightly cross-strike, depending on the gradient), that the proposed well could be drawing from the same fractured bedrock aquifer as Mr. Scipioni's well. Mr. Scipioni claims that his well dries up now after pumping. He indicated that a neighbor's well ceased functioning after extended withdrawal for use in landscaping. What makes the Commission's staff geologist think that a well installed downgradient won't behave in the same way? Is there information/data not provided that makes this so? There is no indication in the Staff Report that the applicant's geological consultants or the staff geologist made any effort to talk to the people who actually have wells in this area to obtain critical information on well behavior or to examine any available drilling logs. What makes the staff geologist believe that the new well won't dewater the limited fractured bedrock aquifer over a period of time and leave along-strike upgradient well owners dry? This question is not adequately answered in the Staff Report.

Due to the relationship between dip, strike, and slope angles, "undisturbed land" recharge to a given dipping fractured bedrock aquifer unit could be from a more limited surface area than

suggested in the Staff Report and perhaps more dependent upon leakage at depth across other lower permeability dipping units. Any assumptions that upslope septic systems would necessarily recharge the same dipping unit which underlies the site may not be warranted and need to be examined. The sites own septic system seems to be along strike but also appears to be downslope and probably downgradient of the proposed well. Moreover, the actual discharge is into unsaturated dipping bedrock above the water table which may in fact not recharge into the dipping bedrock aquifer but perch instead. The recharge assumptions in the Staff Report need to be re-evaluated.

Given that the homes upgradient of the proposed project have been discharging into their septic systems for 15 or 20 years or more, what makes the staff geologist believe that the water quality at the proposed well will not have already begun to reflect the nitrate loading (and other dissolved constituents) that is common in other areas of septic systems such that the issue is ignored? There are areas of both the San Gabriel and San Fernando basins impaired by nitrate loading. The LARWQCB prepared reports some 10 years ago on this issue for the Santa Clarita area where wells near some septic systems reportedly exceeded the 45 mg/l limits for nitrate. Although the proposed well appears to be upgradient (assuming flow generally driven along strike by relief) of the proposed septic system it may be impacted by other septic systems in the area as well as those in projected build-out. The additional potential adverse impact of nitrates and household chemicals on putative springs downgradient (same assumptions) along Tuna Canyon needs to be considered. The staff report does not indicate that any effort was spent in mapping off-site springs, either by the project consultant nor the staff geologist, along that portion of Tuna Canyon Creek or its tributaries that might be impacted. The site model should be re-evaluated and the project treated as a dipping fractured bedrock aquifer which intercepts Tuna Canyon Creek---residents who walk Tuna Canyon indicate the presence of springs. Any springs that are off-site along strike from the project site need to be mapped and evaluated for potential adverse impact. If the amendment is ultimately approved, requirements need to be made for continuing water quantity and quality monitoring by the applicant. Any springs identified need to be treated as the wetlands that they are and provided adequate protection.

Finally, it seems that the issue of water rights may become crucial. It is incumbent upon the Coastal Commission to act in such a fashion as to avoid adverse impacting the existing wells. The Staff Report failed to even accurately determine the number and locations of existing wells or springs in Tuna Canyon Creek much less assure that there will be no adverse effect upon those wells or springs from the subject project. Any further withdrawal of groundwater should be enjoined until it is established that such withdrawals would not adversely affect the rights of the existing users of ground water and any surface water appropriators that might exist---even if those effects may be delayed in time. The dipping fractured bedrock aquifer is not adjudicated with respects to the water rights of the various users, but this does not give the Commission the basis for ignoring the situation.

The Commission should require the applicant to obtain adequate information to predict production characteristics from the site---such as by evaluating existing well logs and performing well tests on existing wells, providing cross sections of the site to putative depth of water, providing an appropriately scaled map displaying the geology between the existing wells, the site and Tuna Canyon Creek, and providing an accurate evaluation of the relationship between

existing septic systems in the area and the subject site via the dipping fractured bedrock aquifer, taking into account structure and lithology. The applicant should be required to provide a map of all springs within a reasonable radius along strike from the subject site and to determine the impact of additional withdrawal from the aquifer upon such springs. It is suggested that the Commission could require the applicant to drill a monitoring well and resolve the question of the nature of the water-bearing zones directly underlying his site with respect to water quality and aquifer characteristics and to relate these to upgradient wells and upslope septic systems and downgradient springs before the Commission agrees to approve the permit amendment. Finally, the Commission should get a written opinion from its counsel regarding the crucial issue of water rights to the dipping fractured bedrock aquifer unit. Owner's of existing wells have expressed concern over their wells being adversely affected by new withdrawals from the dipping fractured bedrock aquifer upon which they depend.

Sincerely Yours,

Philip B. Chandler
Home - (310)455-1962
Work - (818) 551-2921

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January 16, 2001

VIA HAND DELIVERY

James Johnson
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

Re: Mr. and Mrs. Mark Jason
20556 Betton Drive, Malibu
Opposition to Request for Revocation

Dear Mr. Johnson:

This law office represents Mr. and Mrs. Mark Jason, owners of the above-referenced property, with regard to their opposition to the request by the Ms. Kay Austen for revocation of Coastal Development Permit No. 4-96-025-A3 as was approved by the Commission at their November, 2000 meeting. The Request for Revocation must be denied as it fails to meet in any way the requirements for revocation as set forth in Title 14 of the California Code of Regulations, §§ 13105 and 13106.

As set forth in detail below, the Request for Revocation completely fails to meet the requirements of § 13105(a) as there is no evidence whatsoever of any intentional inclusion of inaccurate, erroneous or incomplete information. In addition, the Request must fail as Ms. Austen clearly did have an opportunity to fully participate in the original permit proceedings, and therefore does not have standing to bring a Revocation Request pursuant to § 13106.

A. **Grounds For Revocation.**

Pursuant to 14 California Code of Regulations (C.C.R.) § 13108, the Coastal Commission has the discretion to grant or deny a request to revoke a Coastal Development Permit if it finds that any of the grounds, as specified in 14 C.C.R. § 13105 exists. Section 13105 states, in part, that the grounds for revoking a Permit shall be as follows: (1) that the permit application intentionally included inaccurate, erroneous or incomplete information and that accurate or complete information would have caused the Commission to act differently; and (2) that there was a failure to comply with the

EXHIBIT NO. 2
APPLICATION NO. R-4-96-025-A-3
Applicant's Resp.
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notice provisions of § 13154, where the views of the person(s) not notified were not otherwise made known to the Commission and could have caused the Commission to act differently.

On December 7, 2000, the South Central Coast District Office received a written Request for Revocation of the subject Coastal Permit from Ms. Kay Austen. The Request for Revocation is based on the grounds that the applicant submitted inaccurate, erroneous or incomplete information which would affect the Commission's decision in regards to this project.

The Revocation Request does not suggest that the subject Permit should be revoked on the grounds that there was a failure to comply with the notice provisions of § 13054. Therefore, the Request for Revocation for the subject Permit must only be discussed in relation to the grounds of § 13105(a). Grounds for revocation in § 13105(a) contain three essential elements or tests which the Commission must consider:

a. Did the application include inaccurate, erroneous or incomplete information relative to the Coastal Development Permit?

b. If the application included inaccurate, erroneous or incomplete information, was the inclusion intentional?

c. If the answer to (a) and (b) is yes, would accurate and complete information have caused the Commission to require additional or different conditions or deny the application?

1. **The Application Did Not Include Inaccurate, Erroneous or Incomplete Information.**

The Revocation Request alleges that the permit application contained inaccurate information regarding three issues: 1) water usage; 2) other existing water wells; and 3) the geology of the area in question. In fact, the information regarding these three issues provided with the Application was both accurate and complete, and was based on extensive research, expert opinion, well accepted and publically reported data, and review by the Commission's own staff geologist.

Attached hereto as Exhibit "A" is correspondence dated January 12, 2001, from D. Scott Moors, Associate Geologist with Bing Yen & Associates, Inc., which addresses in detail the issues raised in the Revocation Request and refers specifically to the sources of information used in the Application materials. To confirm information with the City of Malibu you can contact Mr. Larry Young at (310) 456-2489. The Los Angeles County Water Works District No. 29 can be reached at (310) 456-6770.

Attached hereto as Exhibit "B" is a copy of correspondence dated January 13, 2001, from the applicants Mr. and Mrs. Mark Jason, which also provides a detailed response to the issues raised in the Revocation Request. Attached to the Jason correspondence are copies of the relevant sections of the American Water Works Association Research Foundation report entitled "Residential End Uses of Water Study," which was the primary reference for the information provided in the Application.

Therefore, given the research conducted and relied on in completing the Application, the Commission cannot find that inaccurate, erroneous or incomplete information was provided with the Application. As a result, there are no grounds for revocation of the subject Permit under § 13105(a) of the California Code of Regulations.

2. **There Is No Evidence That Any Inaccurate Information Was "Intentionally" Included.**

Even if the Commission were to find that the Application did include inaccurate, erroneous or incomplete information, the Commission would also have to find that such inclusion was intentional. There is absolutely no evidence whatsoever of any intentional inclusion of inaccurate information in this case. Attached hereto as Exhibit "C" is the Declaration of D. Scott Moors, the Project Geologist, executed under penalty of perjury, which states that no inaccurate, erroneous or incomplete information was intentionally included in the Application materials.

Attached hereto as Exhibit "D" is a copy of a California Coastal Commission internal Memorandum dated August 4, 2000, from Mark Johnsson, Senior Geologist for the Commission. That Memorandum indicates that Mr. Johnsson had reviewed the information provided by Mr. Moors, specifically with regard to the issues raised here - water usage, other wells, and geology - and that Mr. Johnsson concurred with Mr. Moors research, estimates and analysis. Mr. Johnsson had raised issues and questions throughout the permit application process, all of which were addressed by Mr. Moors in his various reports. The matter was not brought to the Commission for review until Mr. Johnsson was satisfied with the information and analysis provided by Mr. Moors.

As further evidence that the information provided with the Application was neither inaccurate nor intentionally misleading, attached hereto as Exhibit "E" is an independent review of the Moor's analysis dated November 8, 2000, as conducted by Steven G. Nelson, Director of Biological Services with PCR Services Corporation in Irvine. Mr. Nelson, who co-authored the 1976 Los Angeles County Significant Ecological Areas (SEA) Study, found the Moor's analysis to be reasonable and that the project would not present any significant environmental issue.

Under such circumstances the allegation that inaccurate, erroneous or incomplete information was

intentionally provided to the Commission is completely without merit. As a result, no grounds exist to allow for revocation pursuant to C.C.R. § 13105(a).

3. **The Requested Information Would Not Have Resulted in the Commission Reaching A Different Decision.**

Even if the Commission were to find that the Application intentionally included inaccurate, erroneous or incomplete information, which it cannot, revocation cannot be granted unless the Commission also finds that different information would have caused the Commission to require additional or different Conditions of Approval or to deny the Application. In this case, all of the issues raised in the current revocation request were previously raised, discussed and determined to be meritless at the November 2000 hearing of this matter before the full Coastal Commission.

Specifically, the issues of water usage, other wells in the vicinity, and questions regarding the geology in the area, were specifically raised in the written correspondence opposing the Permit Application as submitted by the Topanga Association for a Scenic Community ("TASC"), and by Mr. Vince Scipioni, as was included in the written materials provided with the agenda to the Coastal Commission at its November 2000 meeting. In addition, the correspondence by Mr. Philip Chandler, which is now utilized as the basis for the Revocation Request, was prepared in advance of the Coastal Commission's November 16, 2000 hearing of this matter, and was provided to the Commission at the time of the hearing.

In the oral testimony at the hearing, all of the issues raised in this Revocation Request were presented to the Commission, considered in their deliberations, and rejected. The previous correspondence from TASC specifically requested that the Commission require additional detailed geologic studies, the same request now being made through this Revocation Request. Such request for additional studies was fully considered by the Commission and rejected at the time of the hearing.

As a result, the Commission must find that, even assuming that the applicant had intentionally submitted inaccurate information regarding these issues, the above-referenced concerns do not meet the third test in regards to determining whether grounds for revocation of a permit exist. The third test for the Commission to consider is whether accurate information will result in a requirement of additional or different conditions or the denial of the Application. In this case, however, accurate information regarding the relevant issues was given in the Application, and in the Staff Report prepared by Commission staff, and was a matter of public record.

As a result, the Commission must find that the submittal of new information regarding these issues would not result in the requirement of additional or different Conditions or the denial of the subject Application and that, therefore, the above referenced issues do not constitute grounds for revocation Permit under § 13105(a) of the California Code of Regulations.

B. Ms. Austen Lacks Standing To Seek Revocation.

C.C.R. § 13106 specifically requires that "any person who did not have opportunity to fully participate in the original proceeding by reason of the permit applicant's intentional inclusion of inaccurate information...may request revocation of a permit..." In this case, Ms. Kay Austen had every opportunity to participate in the original permit proceedings and did so. The Request for Revocation contains no facts or legal argument to support a claim that Ms. Austen did not have an opportunity to fully participate in the original hearings before the Commission. In fact, Ms. Austen did participate and had at her disposal at that time all of the information she now brings forward as part of her Revocation Request, including the letter by Mr. Chandler which predates the Commission's original hearing.

Because Ms. Austen cannot meet the requirements of § 13106, she has no standing to bring this Revocation proceeding, and such Revocation proceeding can and must be dismissed.

F. Conclusion.

As you and the Commission are well aware, Ms. Austen, Mr. Chandler, and their organizations have a long history of taking every action possible to stop or delay any near development in this area. This Revocation Request is nothing more than their latest effort in this regard. The Request clearly cannot meet the legal requirement for Revocation as set forth in the Commission's Regulations.

For all of the reasons set forth above, the Commission must find that the Revocation Request be denied on the basis that the grounds for Revocation under § 13105(a) have not been satisfied, and that the person requesting Revocation does not have standing to do so pursuant to § 13106.

Thank you for your attention to this matter. As always, please do not hesitate to contact me at any time with any questions or comments you may have.

Sincerely,

GAINES & STACEY

By
FRED GAINES

G&S\1245-001

Exhibit A

BING YEN & ASSOCIATES, INC.
Geotechnical & Environmental Consultants, Established 1979

January 12, 2001

BYA Project No. 49.92096.0001

Mr. James Johnson
California Coastal Commission
89 South California Street, Suite 200
Ventura, California 93001

SUBJECT: Comments Regarding Letters of Kay Austen, PhD., dated; December 4, 2000 and Phillip Chandler, dated; November 13, 2000 20556 Betton Drive, Topanga Canyon Area, Los Angeles County, California

Dear Mr. Johnson,

I have reviewed the letter by Kay Austen, dated December 4, 2000, regarding revocation of Mark Jason's Coastal Commission permit (# 4-96-025-A3) and wish to correct several misstatements in Ms. Austen's letter. Ms. Austen makes several unsupported allegations regarding the findings presented in the letters prepared by Bing Yen & Associates, Inc. (BYA) regarding Mr. Jason's proposed homesite. Ms. Austen never contacted me or my office to clarify any issues, nor has any other person other than the Coastal Commision staff and Mr. Jason's other consultants.

Water Usage: Ms. Austen provides a discussion regarding the estimated water usage at the site. BYA's report dated 5/31/00 stated that "[w]ater demand for a typical single-family residence is approximately 400 gallons per day". This water usage figure was provided as a general estimate of residential water use and is widely used in the water supply industry for planning purposes. On May 25, 2000, BYA contacted the City of Malibu Building and Safety Department and spoke with Larry Young, Environmental Health consultant with the City. Mr. Young confirmed that 400 gpd was reasonable assumption. Mr. Young noted that the 1992 Malibu Wastewater Management Study (conducted by Phillip Williams and Associates, and Peter Warshall & Associates) determined that the average household water usage (indoor and outdoor) in the City of Malibu was 425 gpd. Additional support for an assumed water usage of 400 gpd is provided by a study sponsored by the American Water Works Association Research Foundation (AWWARF) titled "Residential End Uses of Water Study (REUWS)" (AWWARF, 1999). The REUWS specifically investigated residential water usage rates and found that the mean (average) residential water use was 146.1 kilogallons per year (= 400.27 gpd). Therefore, for the intended purpose of BYA's report, which was to provide an *estimate* household water usage, 400 gpd was a valid, referenced approximation.

Ms. Austen commented at some length how she contacted the "city of Malibu water department". In fact, the City of Malibu does not have a "City" water department but is served by the Los Angeles County Waterworks District #29 (LAWD 29) which operates within the LA County division of Public Works. BYA had also previously contacted the LAWD 29 in May 2000, but, like Ms Austen, was told that the LAWD 29 could not give out specific estimates of residential water usage in the Malibu or Topanga area. The majority of water consumption is measured by individual (private) meters. However, estimating average consumption within a specific area is possible.

Ms. Austen's letter also provides an estimated water usage of 3,750 gpd. This number appears grossly exaggerated. Firstly, if treatment of groundwater is required for residential use, then presumably only the

indoor residential water would be treated, thereby increasing water demand by usually 20% - 60% *of the indoor water demand only*. Water for outdoor irrigation would not normally be treated. According to the AWWARF REUWS report average per capita indoor water usage is 69.3 gpd. Assuming about 3.5 people in a typical household, treatment may increase the water demand by approximately 50 to 145 gpd. It is also important to note that the treatment wastewater will most likely be discharged to the septic system, thereby having essentially zero impact on the net groundwater balance.

With regard to water usage, it is important to remember the purpose of the original discussion. BYA presented a qualitative model that demonstrated the minimal impact developing a domestic water well on a relatively large, 2.5-acre parcel is expected to have on the groundwater table. The model treats the site as if it were a bucket and assumes no inflow or outflow from the property. Nor does it assume any recharge from rainfall or other sources except the proposed onsite septic system and landscape irrigation supplied by the well. As such, it is a conservative model. It is a simple model and that was the point. The impact of a single domestic well on a 2.5-acre parcel is expected to be small. Alternate estimates of household water usage, ranging up to 625 gpd have also been proposed by other parties. If the water consumption numbers or porosity values change somewhat, that does not directly alter the conclusion that the anticipated impact on the natural environment (flora and fauna) is small since the water table is relatively deep (approximately 100 to 200 feet deep) and net groundwater extraction (total extraction minus recharge) is small. Furthermore, numerous homes in the immediate vicinity are artificially recharging the groundwater table with imported water discharged to septic systems.

Other Wells: Ms. Austen's letter states that BYA's reports omitted or concealed information regarding other nearby wells. This is not true. The well records included in BYA's 5-31-00 report were only cited as a reference for the depth to groundwater in the project area. The existence of other wells in the immediate area was not addressed in that report. The two well logs included in the report were provided by the owners and made available for BYA's review. Section 13752 of the California Water Code states that well logs "... shall not be made available for inspection by the public ...". Thus, other well logs were not available as public record.

Other Inaccuracies: Ms. Austen's letter contained several other points that deserve clarification. Page 2 of her letter, paragraph 2, states, "at the hearing, Mr. Moors, ... admitted that usage could be '1600 gallons a day'". I did not believe that I made any such statement at the Commission hearing.

Ms. Austen's letter also states "Mr. Moors did admit at the hearing that 'these wells run dry during the summer months'" (pg. 3). This is also inaccurate. At the hearing, I did discuss the fact that bedrock wells will frequently pump dry and then recharge. This happens when, for example, a well recharges at 3 gallons per minute (gpm), and the well pump discharges at 5 gpm. In that circumstance, the well will temporarily pump dry since the pump capacity exceeds the specific capacity of the well. This does not imply that a well has "run dry".

Ms. Austen's letter also states that, "[u]nlike Mr. Moors, Mr. Chandler walked the site". BYA staff, including myself, visited and walked the site on two occasions, in April and September, 2000. The site visit in April was made within 24 hours of significant rainfall. The site visit in September was made during the dry season, the site and surrounding publicly accessible areas were specifically observed for natural springs and stream flows. No springs or streamflow was observed in the immediate vicinity of the site.

Letter by Mr. Chandler: Attached to Ms. Austen's letter was a letter by Phillip Chandler, apparently representing the Topanga Association for a Scenic Community (TASC), dated 11/13/00. This letter critiques the Coastal Commission staff report and the report by BYA. Had this letter been provided to BYA prior to the Commission meeting on November 16, we certainly would have responded. However,

BYA did not receive this letter until weeks after the Commission hearing. Mr. Chandler contends that more information is appropriate to more accurately analyze the groundwater regime near the site and noted how the installation of monitoring wells, conducting pump tests, and other detailed forms of site investigation would add to the understanding to the hydrogeologic setting. We note that this is always a tactic of parties opposing a project – to wait until the very last minute, too late for the applicant to provide a response, and request additional studies and analyses. The fact is that the complex nature of the bedrock near the site was discussed in our report and in several telephone conversations with Commission staff. The bedrock consists of interbedded sandstones, conglomerates, siltstones and claystones that have been uplifted, folded, faulted, and intruded with numerous volcanic dikes. In lieu of attempting to model the complex geologic conditions, BYA presented a qualitative model, which demonstrated the minimal impact that the proposed houses and wells will have on the environment. This approach was discussed on several occasions with Commission staff and they concurred that the qualitative evaluation was both appropriate and reasonable.

If you have any questions regarding this letter, please contact me at your convenience.

Sincerely,

BING YEN & ASSOCIATES, INC.

D. Scott Moors
Associate Geologist
CHG 607, exp. 9/30/02
CEG 1901, exp 3/31/02
letter 1-8-01 revised

Cc: Mark Jason

Exhibit B

Mr. and Mrs. Jason
20384 Seaboard Rd.
Malibu, CA 90265
(310) 456-2628

January 13, 2001 Permit 4-96-025-A3

Mr. James Johnson
California Coastal Commission
80 South California Street, Suite 200
Ventura, CA 93001

Dear Mr. Johnson:

In response to the various false and misleading allegations made by Ms. Austen, and to support the 400 gpd water usage figure used by Scott Moors, the most respected book on end uses of water in North America and California, entitled ***Residential End Uses of Water***, published in 1999 and prepared by the AWWA Research Foundation, a nonprofit organization, is extensively quoted below. **(Exhibit AA)**

Total Average Daily Use (Exhibit A)

"Some totals of 28,015 complete days of end use data were recorded from the 1188 study homes in the REUWS. The average daily use was calculated for each of the 1,188 study homes and then plotted as a scatter diagram in Figure 5.1. The data is plotted in order of the Keycode, which represents the order in which sites was sampled starting with Boulder, Colorado and ending with Lompoc, California. Figure 5.1 shows that the vast majority of homes used less than 1000 gallons per day on average. **The mean was 409 gpd with a standard deviation of 486 gpd. The median daily use was 311 gpd.** Two of the study homes used an average of more than 9000 gpd over the two logging periods because of enormous irrigation demands and including these two outliers expanded the y-scales, making in hard to see the detail for the majority of users, of whom 95% used less than 1000 gpd and **75% used less than 500 gpd."**

Total Average Daily Use for Las Virgenes (Exhibit B)

Of the areas presented in the AWWA study, the closest in proximity to Topanga and one of the largest consumption rates in the AWWA study is Las Virgenes located also in the Santa Monica Mountains of LA County. **The median use in this area was 230kgal or 630 gallons per day.** This difference in the higher use in water from the more typical

areas can be explained in that typical **landscaping in this affluent area is far more extensive than the other areas in the study. (Exhibit C)** To a large degree these homes are landscaped with nonnative vegetation and are not similar to our approved landscape plan of exclusive native and drought resistant plant species which require substantially lower volumes of water. Additionally, many of the homes are older and do not benefit from the low flow technology for toilets and showers, including electronically controlled drip systems for irrigation that newer homes incorporate into their designs to conserve water consumption.

Daily indoor use (Exhibit D)

"The same set of analyses were performed on the logged average daily indoor water use from the 1,188 home study groups. Indoor use excludes water uses like irrigation and swimming pool refilling, but does include all leakage. There was far less variability in indoor use than outdoor use". **" The mean daily indoor use was 173 gpd with a standard deviation of 94 gpd. The median was 157 gpd".**

Study Site Comparison (Exhibit E)

"Mean indoor use patterns in the 12 study sites differed by up to 26.4 gallons per capita per day (gpcd). The average per capita per day indoor usage ranged from 57.1 gpcd in Seattle to 83.5 gpcd in Eugene, Oregon with a mean for the entire study of 69.3 gpcd. Results for all 12 study sites are presented in Table 5.1. The median use was less variable, with only a 12.9 gpcd difference between the extremes. This result is important because the calculation of the median avoids the right-hand tail effect from outliers. The importance of outliers is shown by the large difference between the mean and the median for each city. The standard deviation of daily per capita indoor use ranged from 23.4 in San Diego to 68.9 in Eugene. The Tempe/Scottsdale and Eugene, Oregon study sites had the highest daily per capita indoor water use and standard deviation because of a small number of outliers who used considerably more water due to excessive leakage and the possibility that additional persons may have been staying at the home during on of the logging periods."

Miscellaneous

The attachment entitled Tuna Canyon Watershed Recorded and Permitted Well Data is provided to illustrate that of the five permitted wells within the noted Township/Range/Section, **only two wells are within the Tuna Watershed Boundary. (Exhibit F)** Data is provided from *LA County Sanitation & Health Public permit Records and California Department of Water Resources Permit Records.* Well logs are not

allowed to be made available to the public under Section 13752 of the California Water Code. **(Exhibit G)**

Our square footage of our home size has been scaled down from a permitted 4800 sq. ft. to approximately, 4200 sq. ft.

Ms. Austen alleges that Dr. Zinini's well is not working. This is a preposterous and a very deceiving allegation. **Shortly after Dr. Zinini put in his well, his generator which powered his pump was stolen and not replaced. (Exhibit H)** Thereby, his well was temporarily not working. He has an excellent producing well of 20 gallons per minute. In addition, he has recently been supplied with underground power by Southern California Edison.

Personal Comments

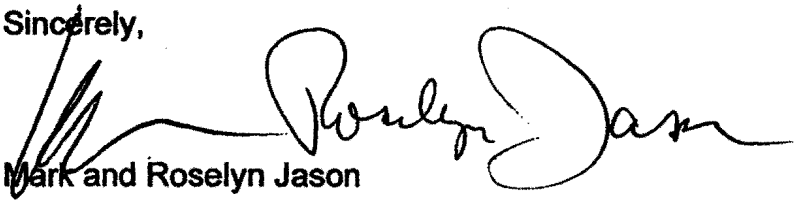
I think that you will find that Ms. Austen is only a member of the organizations that she likes to quote and has no authority for making representations other then her own. I am a member of AARP with more than 16 million members, many of which would be appalled at how TASC and TUNA, supported by Dr. Malcolm Lesavoy, have harassed Mr. Sayles, Ms. Olson and my family over the years. The California Coastal Commission wouldn't want to have to have to respond in writing to that correspondence.

During the November 2000 CCC meeting, Dr. Malcolm Lesavoy' s opposition letter offered his personal theory on how Tuna Canyon would implode once the water is sucked out. Of course this ridiculous logic isn't worth commenting on, but this man and the emotional stress, time and money that he has caused us all is worth a mention at this point. It's Dr. Lesavoy's myopic vision of a trail for himself and a few elite others to ride their horses through our property, that instigated his relentlessly pressure for us to give up and abandon our property and rights **(Exhibit I)**. He has been one of the leaders and through his ample financial resources, has been the person financing the continued war against our project **(Exhibit J & K)**. Hiding behind TASC and TUNA for what I assume to be major tax benefits under the pretense of being an environmentalist, is deceitful and hypocritical.

As an example, he physically impeded our grading and paving the road by delaying tactics in relocating his gate that he had built in the road easement **without a coastal development permit.** After expensive lawyer exchanges, I personally wrote him a check on July 29, 1999 in the amount of $1,500, to motivate him to relocate the gate. **Lesavoy is the same man who contends that we shouldn't be allowed to dig our wells because we are damaging the environment. Now he is trying to stop Mr. and Mrs. Sayles from putting in a waterline.** His true motivations are crystal clear. Dr. Malcolm Lesavoy is a self-serving homeowner who once he moved into his property in 1995, more

than 20 years after most of us purchased our properties, will do anything to stop us. Ms. Austen has also relentlessly attacked our desire to build our home, with a water well (and the Sayles waterline), only because she resides above our property on Tuna Canyon and selfishly doesn't want to see our homes off in the distance. We implore you to put an end to this continued frivolous harassment. Lesavoy with Austen's help have even planned organized meetings at his house whose sole purpose is to stop anyone from building in the neighborhood. This is the worst form of bigotry and prejudice.

Sincerely,



Mark and Roselyn Jason

P.S. If you are still not convinced who these people are, please reflect on **(Exhibit L)**, court actions from May, 1998 through September, 1999. This does not include the attempt to appeal our permit approval to the California State Supreme Court to be denied a hearing based on the lack of merit of the case.

EXHIBIT "AA"

AWWA Research Foundation

Advancing the Science of Water to Improve the Quality of Life

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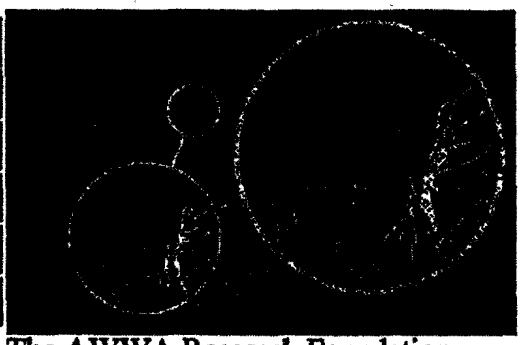

The AWWA Research Foundation sponsors research for the drinking water community. AWWARF's research program embraces all aspects of water supply planning and operation:

- Analytical techniques and monitoring
- Storage and distribution system operations
- Development and maintenance of water resources
- Treatment technologies
- Health effects issues
- Utility planning and management

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Petaluma, CA 94954

References

1. Residential End Uses of Water, p. xxii

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- Regulations
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- Everything Else!

Residential End Uses of Water
AWWA Research Foundation, 1999

Applications and Continuing Research

The Residential End Uses of Water Study captured detailed information about water use in a cross section of homes from 14 cities during the study period of 1996-98. The report necessarily contains a great deal of information carefully summarized and selected by the research team. One of the important applications of this research, however, lies in the use of the underlying data set (which can be obtained from Aquacraft, Inc.) for other studies that are specific to the special needs of the user. For example:

- Appliance manufacturers may use the database to examine time and frequency of appliance operations and selected cycles.
- Medical researchers may use the data to examine shower durations for exposure studies to disinfection by products and radon gas.
- Water planners have access to a vast amount of information on the entire range of single family water users for examination of factors that affect water consumption and timing of demands within this major group of customers.

Because the study group selection for the study was essentially a random process it shows conditions as they generally exist within the 14 study sites during the study period. As such, it presents baseline data on the both the survey and logging homes. This provides a unique resource for continuing research by studying changes that occur in water use patterns within the group over time. These changes can be due to normal changes in population (as people move in and out of homes), natural upgrades to fixtures and appliances and people replace old devices, or active changes in demands caused by water conservation programs. An example of the later is a detailed study of the impacts of residential retrofits being conducted in Seattle. This study, funded by the US Environmental Protection Agency, selected homes from the REUWS study group to receive complete retrofits, including toilets, showerheads, faucets, and horizontal axis clothes washers at no cost to the home owners. Data were collected both prior and after the retrofits which will be compared to the original baseline data in order to quantify savings attributable to each installed device.

In the coming years as more end use data is collected from different cities and towns across North America, the REUWS database can be expanded and updated. This will ensure the continued value of this resource over time and will allow for changes in residential demand patterns to be accurately monitored and described. It is hoped that, over time, more researchers will use the data as part of their work, and that a user group will be established which will share results of analyses and of subsequent work which builds on the current study.

William B. DeOreo, President
Aquacraft, Inc.

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The 1984 U.S. Department of Housing and Urban Development study, *Residential Water Conservation Projects - Summary Report* , has, over the years, become an industry water use data benchmark. With the 1999 release of the American Water Works Association Research Foundation(AWWARF) Residential End Uses of Water study (REUWS), more current, comprehensive and, thus, relevant data is now available as to how (and when) water is used in a residential setting.

The study's authors state that, "Creating national water use 'averages' was not an objective of this study. The pooled results are presented for summary and comparative purposes alone"..."However, a striking conclusion of this report is in the *similarities* between these twelve locations in the amount of water fixtures and appliances use" (i.e., indoor use) and that "...this portion of the data has significant 'transfer' value across North America." This study is sure to be of great industry interest as well as have important implications as indicated in the Applications and Continuing Researchsection.

Featured Highlights -

Study data consists of over 1.9 million end use events comprised of flow measurements collected on 1,188 single family homes in twelve North American sites using "data logger"technology. The research conducted for the study sponsored by AWWA Research Foundation was led by Aquacraft, Inc. Water Engineering and Management with subcontractors Planning and Management Consultants, Inc. and John Olaf Nelson Water Resources Management

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Residential End Uses of Water

AWWA Research Foundation, 1999

Research Objectives and Approach

- Where is water used in single-family homes?
- How much water is used for toilets, showers, clothes washers, faucets, dishwashers, and all other purposes?
- What component of total use can be attributed to each specific water using device and fixture?
- How does water use vary across single-family homes?
- What are the factors that influence single-family residential water use?
- How does water use differ in households equipped with conserving fixtures?

The Residential End Uses of Water Study (REUWS) was designed to help answer these and other questions and to provide specific data on the end uses of water in single-family residential settings across North America.

The "end uses" of water include all the places where water is used in a single-family home such as toilets, showers, clothes washers, faucets, lawn watering, etc. Accurately measuring and modeling the residential end uses of water and the effectiveness of conservation efforts has been the Achilles heel of urban water planning for many years. Understanding where water is put to use by the consumer is critical information for utilities, planners, and conservation professionals. Empirical evidence of the effectiveness of specific conservation measures can be used to improve the design of conservation programs and can provide justification for continued support of conservation efforts.

Research Objectives

The American Water Works Association Research Foundation (AWWARF) and 22 municipalities, water utilities, water purveyors, water districts, and water providers funded this study. Goals of this research included:

- Providing specific data on the end uses of water in residential settings across the continent.
- Assembling data on disaggregated indoor and outdoor uses.
- Identifying variations in water used for each fixture or appliance according to a variety of factors.
- Developing predictive models to forecast residential water demand.

This report represents a time and place snapshot of how water is used in single-family homes in twelve North American locations. Similarities and differences among "end uses" were tabulated for each location, analyzed, and summarized. Great care was taken to create a statistically significant representative sample of customers for each of the twelve locations. However, these twelve locations are not statistically representative of all North American locations.

Although a concerted effort was made to recruit a representative sample of households at each location, some households chose not to participate. While this may place some limits on the statistical inferences and generalizations which can be drawn from the data, it does not diminish the contribution made by these data to improving understanding of residential water use.

Analyses are presented for each of the participating cities individually and for the pooled sample of 1,188 households. Creating national water use "averages" was not an objective of this study. The pooled results are presented for summary and comparative purposes alone. Two major contributions of this study are demonstrating the feasibility of identifying and measuring the different ways

6.20

households use water and describing and analyzing variations in water used for specific purposes between different households. Armed with this insight, individual water utilities interested in reducing water demands in single-family homes now have a better tool to assess their own conservation potential.

The diversity of the water use data found over the twelve locations illustrates the importance of utility specific information on how individual behavior influences home water use. However, a striking conclusion of this report is in the similarities between these twelve locations in the amount of water fixtures and appliances use. The range in the amount of water used by hardware such as toilets, washing machines, showerheads, dishwashers, faucets, and fixture leaks is now documented and surprisingly similar - suggesting that this portion of the data has significant "transfer" value across North America. The predictive models developed as part of this study to forecast indoor demand significantly increase the confidence in explaining the water use variations observed. The major benefit of modeling is to provide a predictive tool with a high transfer value for use by other utilities.

Approach

The project team developed a multifaceted approach to accomplish the research objectives set out for this study. After invitations were sent to utilities and water providers across the United States and Canada, 12 study sites volunteered to participate and partially fund this research. These 12 study sites were:

- Boulder, Colorado
- Denver, Colorado
- Eugene, Oregon
- Seattle, Washington
- San Diego, California
- Tampa, Florida
- Phoenix, Arizona
- Tempe and Scottsdale, Arizona
- Regional Municipality of Waterloo, Ontario
- Walnut Valley Water District, California
- Las Virgenes Municipal Water District, California
- Lompoc, California

A detailed and rigorous workplan to obtain data from each study site was developed by the project team. Data collected from each study site included: historic billing records from a systematic random sample of 1,000 single-family detached residential accounts; household level information obtained through a detailed mail survey sent to each of the selected 1,000 households; approximately four weeks of specific data on the end uses of water collected from a total of 1,188 households (approximately 100 per study site), data collection was divided into two, two-week intervals spaced in time to attempt to capture summer (peak) and winter (off-peak mostly indoor water use) time frames; supplemental information including climate data and information specific to each participating utility.

In this study, water consumption for various end uses was measured from a significant sample of residential housing across North America using compact data loggers and a PC-based flow trace analysis software. A flow trace is a record of flow through a residential water meter recorded in 10 second intervals which provides sufficient resolution to identify the patterns of specific fixtures within the household. The flow trace analysis software disaggregates this virtually continuous flow trace into individual water use events such as a toilet flush or clothes washer cycle and then an analyst implements signal processing tools to assign fixture designations to each event.

The data assembled for this research effort include: A sizable residential water use database containing nearly one million individual water use "events" collected from 1,188 residences in the 12 study sites; extensive household level

information obtained through the mail survey completed by approximately 6,000 households, and historic water billing records from 12,000 residences. All of this information was collected to provide answers to many long standing questions about how much and where water is used in the residential setting and to provide estimates of the savings available from various conservation measures.

In addition to presenting the findings from the data collection effort, the project team also developed predictive models which incorporated the detailed end use information and household level socioeconomic data.

A research study of this magnitude must rely on a variety of assumptions which are taken as "givens". It is recognized that changes in some of these assumptions could impact the results, but the limits of the project scope and funding did not allow exploration of some of the following factors:

1. The accuracy of the billing consumption histories provided by participating utilities.
2. The accuracy of mail survey responses.
3. The timeframe of monitoring capturing "representative" indoor water use for each home.
4. Capturing the precise weather related use within the monitoring timeframe needed to analyze the variables associated with outdoor use.

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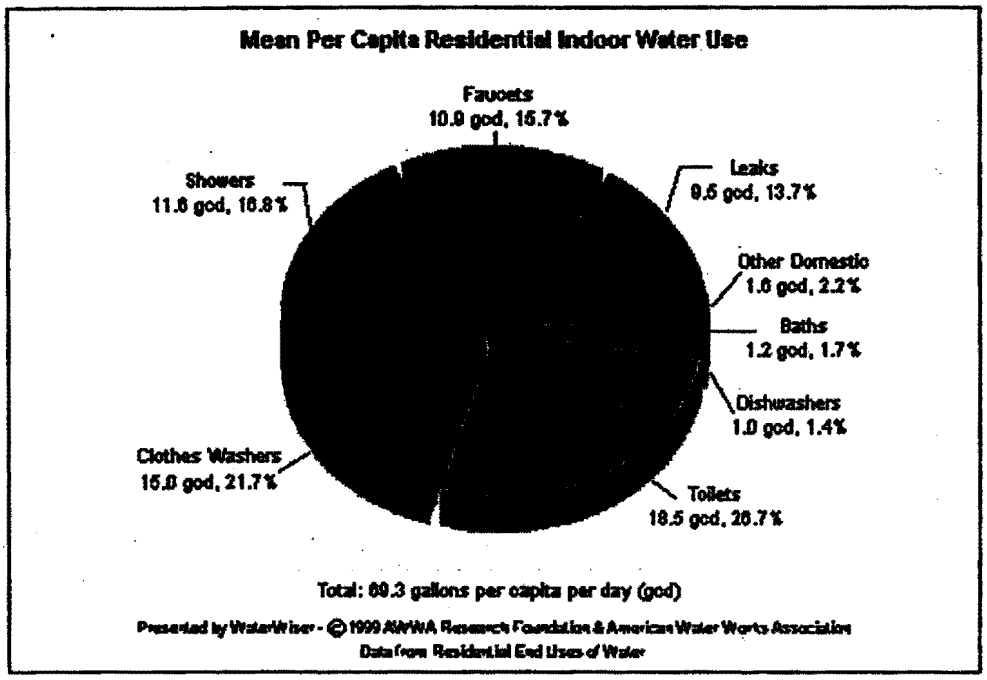
Water Use: Indoor & Annual

Indoor Water Use



Per capita daily indoor water use was calculated for each study site and for the entire study using data logging results from 28,015 complete logged days to calculate water consumption and mail survey responses to count the number of people per household. Across all 1,188 study homes in the 12 study sites the mean per capita indoor daily water use was 69.3 gallons (including leakage). Mean indoor per capita use in each study site ranged from 57.1 gallons per capita per day (gpcd) in Seattle, Washington to 83.5 gpcd in Eugene, Oregon.

Annual Water Use

Average annual water use, based on historic billing records from approximately 1,000 accounts in each of the 12 study sites, ranged from 69,900 gallons per household per year in Waterloo and Cambridge, Ontario to 301,100 gallons per household per year in Las Virgenes MWD. The mean annual water use for the 12 combined sites was 146,100 gallons per household per year with a standard deviation of 103,500 gallons and a median of 123,200 gallons (n=12,075). Across all study sites 42 percent of annual water use was for indoor purposes and 58 percent for outdoor purposes. This mix of indoor and outdoor was strongly influenced by annual weather patterns and, as expected, sites in hot climates like Phoenix and Tempe and Scottsdale had a higher percentage of outdoor use (59 - 67 percent) while sites in cooler, wetter climates like Seattle and Tampa and Waterloo had much lower percentages of outdoor use (22 - 38 percent). The net annual ET requirement for turf grass ranged from 15.65 inches in Waterloo to 73.40 inches in Phoenix, Tempe, and Scottsdale.

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Other Research Findings of Note

Leaks

In the REUWS it was found that a small number of homes were responsible for the majority of the leakage. While the average daily leakage was 21.9 gallons, the standard deviation was 54.1 indicating a wide spread in the data. The median leakage rate was only 4.2 gallons per household per day. Nearly 67 percent of the study homes leaked an average of 10 gallons per day or less, but 5.5 percent of the homes leaked an average of more than 100 gallons per day. Saying it another way, 10% of the homes logged were responsible for 58% of the leaks found.

In the 100 data logged homes with the highest average daily indoor water use, leaks accounted for 24.5 percent of average daily use. These top 100 homes averaged 90.4 gallons per day (gpd) of leaks compared with 21.9 gpd for the entire 1,188 home data logged group.

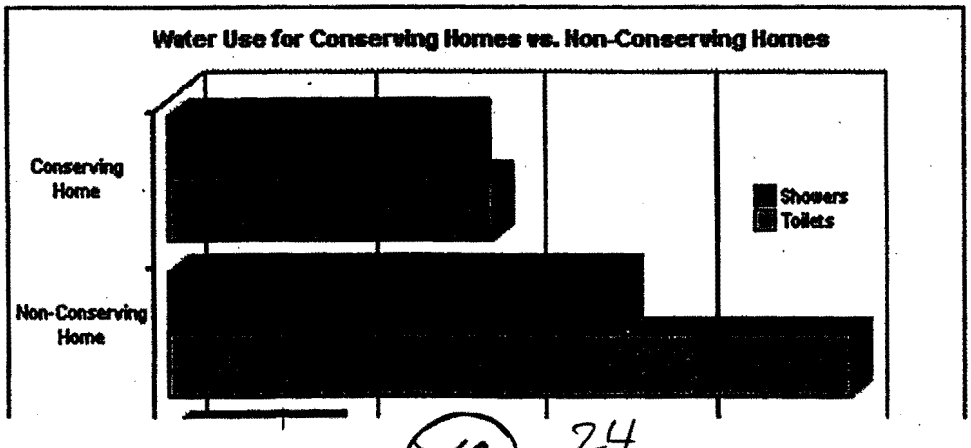
Many variables were found to explain the variance in leakage rates. The quantity of water attributable to leaks increased with temperatures and decreases with precipitation. Accounting for the effects of the other variables in the model, higher leakage was registered for households logged during the winter months.

The quantity of water leaks showed a statistically significant relationship with both the marginal price for water and the marginal price for sewer. Results imply that a one-percent increase in the marginal price of water will lead to a 0.49 percent decrease in the amount of leakage, while a one-percent increase in the marginal price of sewer will lead to a 0.12 percent decrease in the amount of leakage. These findings seem to verify that higher prices lead to some degree of voluntary leak detection and correction. With regard to correcting leaks, renters as group had a lower amount of leakage than non-renters. This may confirm the expectation that landlords seek to minimizing costs.

Following a pattern consistent with the indoor end uses, the amount of leakage was positively related to the number of persons in a household, but negatively related to the number of people working full-time outside the home. The amount of leaks were shown to increase with the number of toilets in the home.

Leakage was found to be higher in homes that were built in the 1970s and in households that use a sprinkler system that is attached to the garden hose. Leakage is found to be generally lower for households that use drip irrigation systems or use a hand-held hose for watering and for those who have reported taking behavioral and technological actions to save conserve water outdoors.

Water Savings



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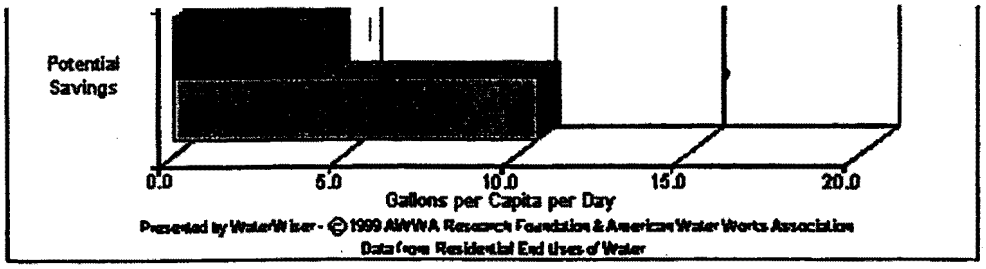

Showers -

So called "Low Flow" showerheads are designed to restrict flow to a rate of 2.5 gallons per minute (gpm) or less. By calculating the modal shower flow rate for each shower at each study residence it was possible to separate homes which always showered in the low-flow range (LF houses), homes which occasionally showered in the low flow range (Mixed houses), or homes which showered exclusively above the low flow range (Non-LF houses). About 15 percent of the study homes showered in the low flow range exclusively, 60.4 percent occasionally showered in the low flow range, and 24.5 percent showered exclusively above the low flow range.

The LF shower homes used an average of 20.7 gpd and 8.8 gallons per capita per day (gpcd) for showering, while the non-LF shower homes used an average of 34.8 gpd and 13.3 gpcd. However, the duration of the average shower in the LF shower homes was 8 minutes and 30 seconds, 1 minute and 48 seconds longer than the average shower duration in the non-LF homes which was 6 minutes and 48 seconds.

Toilets -

Of the over 289,000 toilet flushes recorded during the two year end use monitoring portion of the REUWS, 14.5 percent of the flushes were less than 2.0 gallons per flush (gpf), 34.7 percent of the flushes were between 2 and 3.5 gpf, and 50.8 percent were greater than 4 gpf.

Of the 1188 data logged homes in the REUWS, 101 (8.5 percent) used ULF toilets almost exclusively. This number was determined by first calculating the average flush volume for each study residence. Homes with an average volume per flush of less than 2.0 gallons over the 4 week data logging period were classified as "ULF only" homes meaning that while they may have other units, they use ULF units almost exclusively. The 101 "ULF only" homes used an average of 24.1 gpd for toilet purposes. The residents of these homes flushed the toilet an average of 5.04 times per person per day and used an average of 9.5 gpcd for toilet purposes.

Another 311 study homes (26.2 percent) were found to have a mixture of ULF and non-ULF toilets. These homes were distinguished by counting the number of toilet flushes which used less than 2.0 gallons per flush. Homes that had six or more ULF flushes (and who were not part of the "ULF only" group were placed in the "mixed" toilet group. Homes with a mixture of ULF and non-ULF toilets used an average of 45.4 gpd for toilet purposes. The residents of these homes flushed the toilet an average of 5.39 times per person per day and used an average of 17.6 gpcd for toilet purposes. The remaining 776 study homes we placed in the "non-ULF" group. The "non-ULF" study homes averaged 47.9 gpd for toilets. Residents in these homes flushed an average of 4.92 times per person per day and used an average of 20.1 gpcd. The net potential savings when comparing "ULF only"

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homes from this study to the "non-ULF" homes is therefore is 10.5 gpcd.

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Residential End Uses of Water
AWWA Research Foundation, 1999

Outdoor Water Use

As expected, the amount of water used for outdoor purposes (primarily irrigation) is positively related to the size of the lot and the percentage of the lot that is irrigable landscape.

The following are other specific interpretations of the results of the outdoor end use model:

- Homes with in-ground sprinkler systems use 35 percent more water outdoors than those who do not have an in-ground system
- Households that employ an automatic timer to control their irrigation systems used 47 percent more water outdoors than those that do not
- Households with drip irrigation systems use 16 percent more water outdoors than those without drip irrigation systems
- Households who water with a hand-held hose use 33 percent less water outdoors than other households
- Households who maintain a garden use 30 percent more water outdoors than those without a garden
- Households with access to another, non-utility, water source displayed 25 percent lower outdoor use than those who used only utility-supplied water
- On average, homes with swimming pools are estimated to use more than twice as much water outdoors than homes without swimming pools, everything else held constant.

Order Residential End Uses of Water

Main Page | Indoor & Annual Water Use | Other Findings
Research Objectives | Sources Documentation | Table of Contents

13.27

EXHIBIT "A"

From the standpoint of the water provider, they represent an important way of looking at demands, since the basic unit of water service is the household account.

Total Daily Use

A total of 28,015 complete days of end use data were recorded from the 1,188 study homes in the REUWS. The average daily use was calculated for each of the 1,188 study homes and then plotted as a scatter diagram in Figure 5.1. These data are plotted in order of the Keycode, which represents the order in which sites were sampled starting with Boulder, Colorado and ending with Lompoc, California. Figure 5.1 shows that the vast majority of homes used less than 1000 gallons per day on average. The mean was 409 gpd with a standard deviation of 486 gpd. The median daily use was 311 gpd. Two of the study homes used an average of more than 9000 gpd over the two logging periods because of enormous irrigation demands, and including these two outliers expanded the y-scales, making it hard to see the detail for the majority of users, of whom 95 percent used less than 1000 gpd and 75 percent used less than 500 gpd.

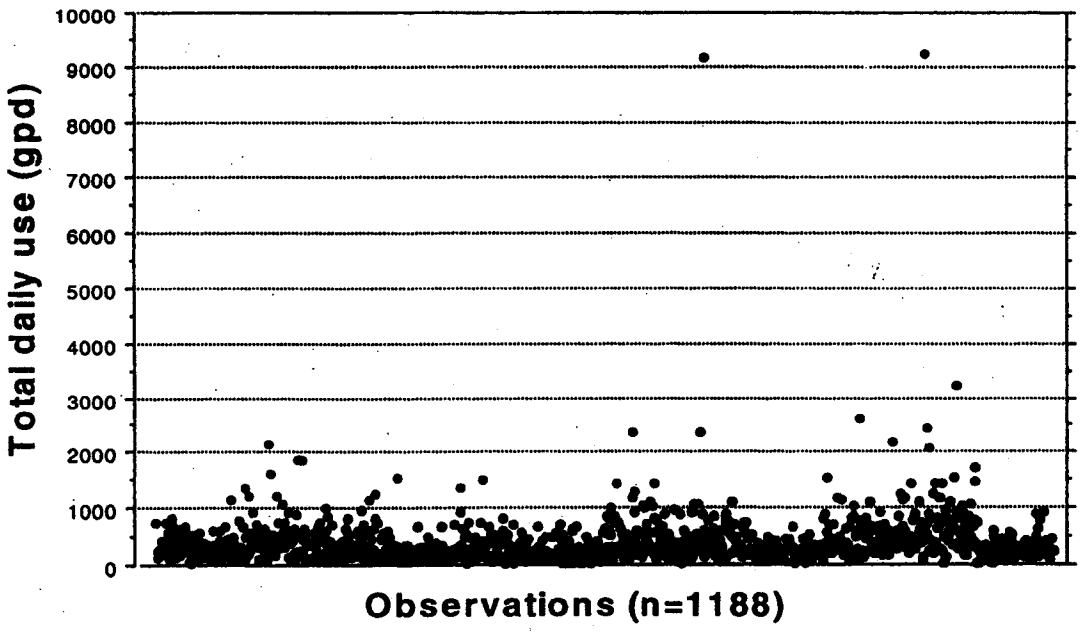


Figure 5.1 Scatter diagram of average daily water use, 1,188 homes

EXHIBIT "B"

Table 4.3 Annual water use statistics from initial survey samples (1,000 accounts per study site)

Study Site	Sample Size*	Total annual water use from billing records		
		Mean† (kgal)	Median (kgal)	Std. Dev. (kgal)
Waterloo/Cambridge	1,000	69.9	63	57.0
Seattle	985	80.1	55	48.6
Tampa	1,017	80.6	61	57.6
Lompoc	1,000	103.0	96	51.5
Eugene	983	107.9	98	59.8
Boulder	1,000	134.1	122	74.5
San Diego	1,007	150.1	129	100.2
Denver	1,000	159.9	142	111.1
Phoenix	1,000	172.4	150	113.3
Scottsdale/Tempe	1,001	184.9	152	150.4
Walnut Valley WD	1,000	208.8	182	127.8
Las Virgenes MWD	1,062	301.1	230	289.6
12 Study sites	12,055	146.1	123.3	103.5

Footnotes:

* Samples drawn from the population of single-family accounts in each study site.

† Based on most recent available complete year of historic billing data.

$\frac{230,000}{365} = 630$ gpd.

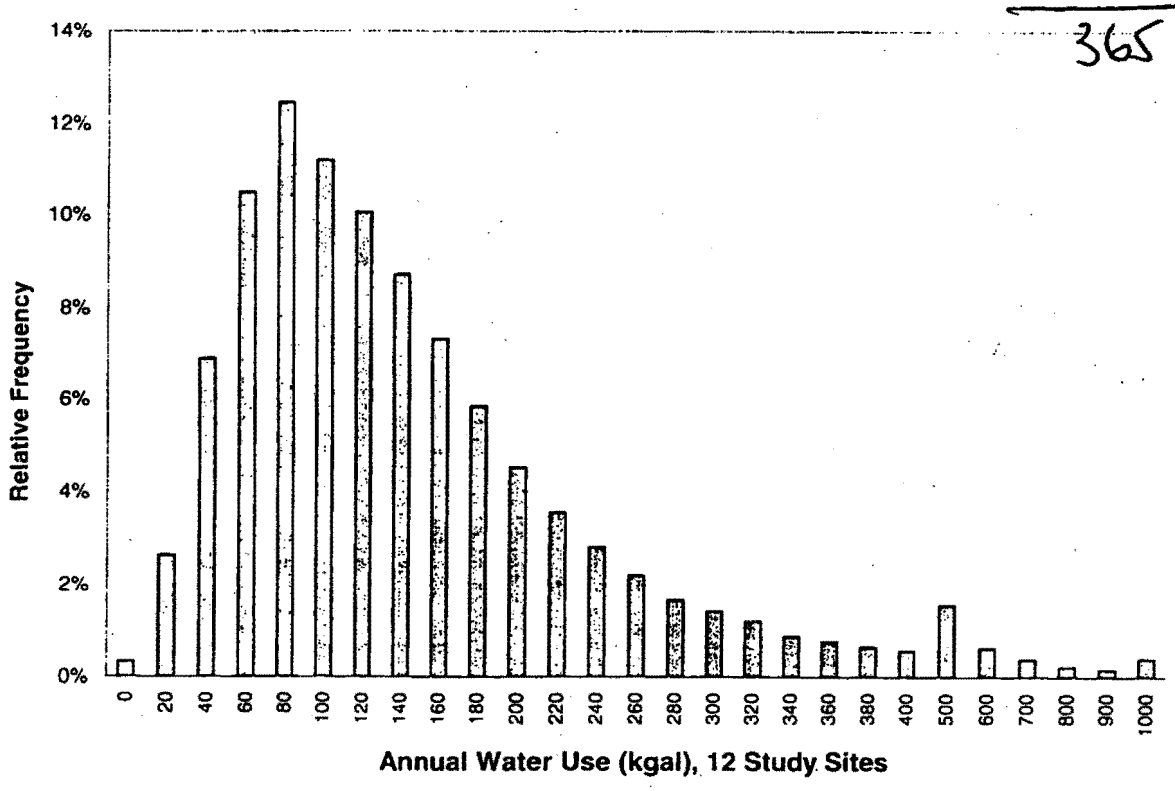


Figure 4.13 Annual water use distribution, 12 REUWS study sites, 12,055 homes

EXHIBIT "C"

Figure 4.11 Participating house in Lompoc, California

Figure 4.12 Participating house from Las Virgenes Municipal Water District

EXHIBIT "D"

Figure 5.2 is a box diagram of the same average daily use data. This figure shows the 10, 25, 50 (median), 75, and 90 percentiles of average daily use. For emphasis, the area between the 25th and 75th percentiles are shaded. All data above the 90th and below the 10th percentile are shown as points, but to avoid the loss of detail, the two outliers are not shown in this figure.

Daily Indoor Use

The same set of analyses were performed on the logged average daily indoor water use from the 1,188 home study group. Indoor use excludes water uses like irrigation and swimming pool refilling, but does include all leakage. There was far less variability in indoor use than outdoor use. The mean daily indoor use was 173 gpd with a standard deviation of 94 gpd. The median was 157 gpd. Figure 5.3 provides a scatter diagram of the average indoor use for the 1,188 study homes. As for figure 5.1 these data were plotted in order of the Keycode.

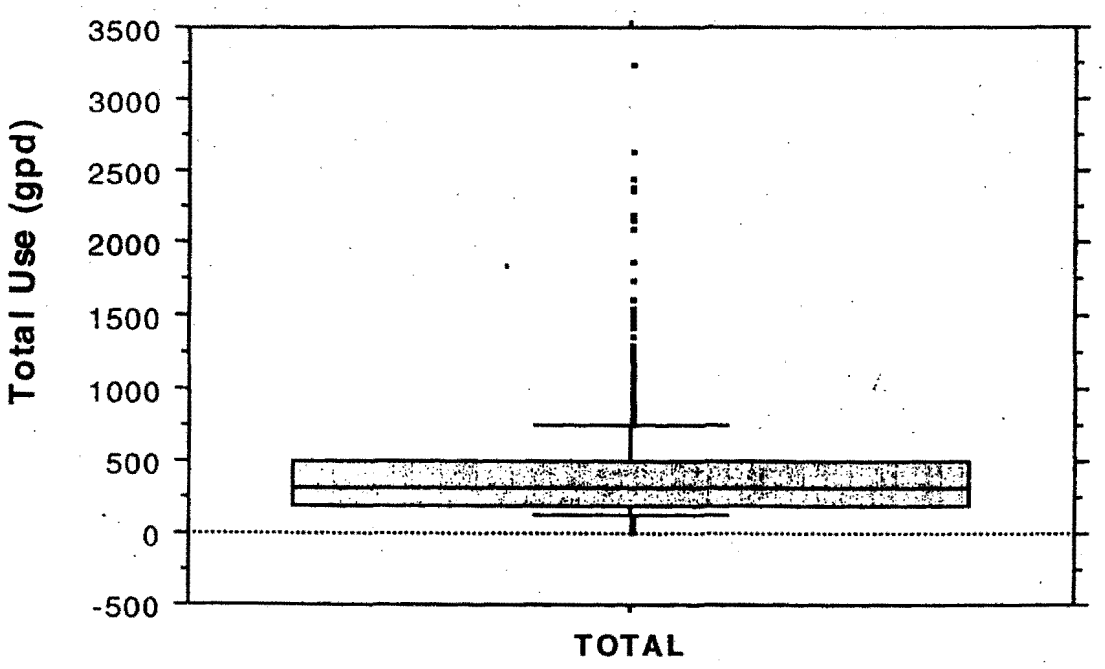


Figure 5.2 Box diagram of average daily water use, 1,188 study homes

EXHIBIT "E"

In order to quantify the increase in total indoor water use with household size, a least squares regression line was fit to the indoor per household per day data and equation 5.1 was obtained. The coefficient of determination (R^2) for this equation is 0.9944 indicating an excellent fit.

$$y = 37.2x + 69.2 \qquad (5.1)$$

where y = indoor use per household per day and

x = the household size (number of people per household)

This equation indicates that there is an increase of approximately 37 gallons per day for each extra person in the household with a "threshold" water use of about 69 gallons per day.

Study Site Comparison

Mean indoor use patterns in the 12 study sites differed by up to 26.4 gallons per capita per day (gpcd). The average per capita per day indoor usage ranged from 57.1 gpcd in Seattle to 83.5 gpcd in Eugene, Oregon with a mean for the entire study of 69.3 gpcd. Results for all 12 study sites are presented in Table 5.1. The median use was less variable, with only a 12.9 gpcd difference between the extremes. This result is important because the calculation of the median avoids the right hand tail effect from outliers. The importance of outliers is shown by the large difference between the mean and median for each city. The standard deviation of daily per capita indoor use ranged from 23.4 in San Diego to 68.9 in Eugene. The Tempe/Scottsdale and Eugene, Oregon study sites had the highest daily per capita indoor water use and standard deviation because of a small number of outliers who used considerably more water due to excessive leakage and the possibility that additional persons may have been staying at the home during one of the logging periods.

Leaks

The mean per capita rate of leakage (9.5 gpcd) should be of concern to utilities, water providers, and consumers. This is not the first study that has found residential leakage rates in this range. The 1984 HUD study found leakage rates ranging from 5 to 13 percent of indoor use (Brown and Caldwell 1984). The Boulder Heatherwood Studies found leakage to be 11.5 percent of indoor use, but this was reduced to 5.5 percent after a significant ULF toilet retrofit in

Tuna Canyon Watershed Recorded and Permitted Well Data

Data Obtained form LA County Sanitation & Health Public Permit Records & California Department of Water Resources Permit Records

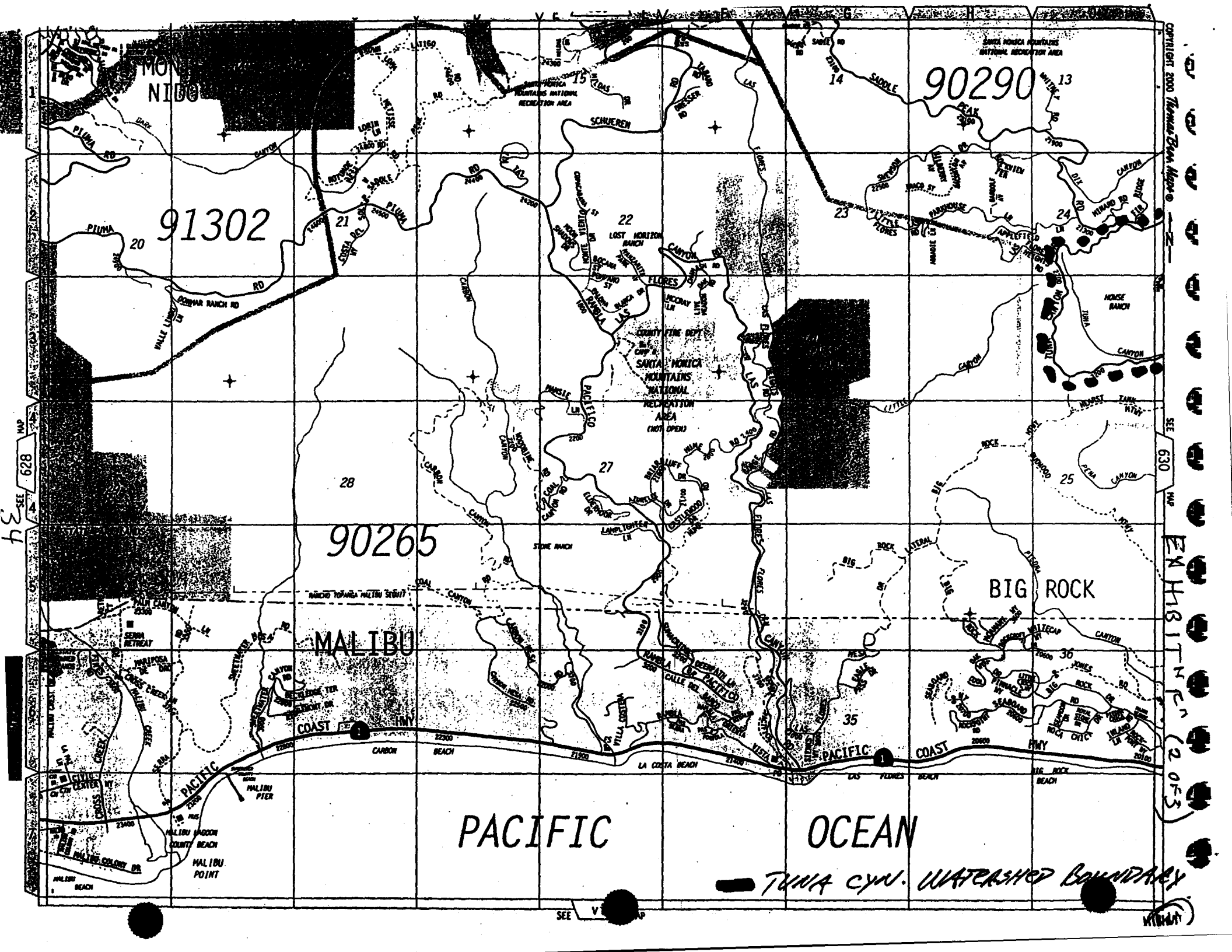
Note: Specific detailed well reports and log data cannot be made available for inspection by the public under CA Code / Water Section 13752

Data investigation was conducted in December 2000

Agency Contacts: LA County Sanitation / Arnie Fielding 310-317-1317 California Dept. Of Water Resources / Gary Gilbreath 818-543-4653

Water Resource Dept. Record #	LA County Permit Record	Within Tuna Watershed Boundary	Owner	Assessor Parcel #	County	Township	Range	Section	Completion Date	Driller	Use	Type	Well Address
297336	YES	NO	GOYJER, JIM	4448-011-043	19	01S	17W	24	16-Mar-88	BATSON DRILLING SERVICE	DOMESTIC	NEW	SKYHAWK
354589	YES	NO	ZANINI, DINO	4448-011-044	19	01S	16W	19	24-Apr-91	BATSON DRILLING SERVICE	DOMESTIC	NEW	SKYHAWK
401745	YES	NO	LEVY, MURRAY	4416-013-002	19	01S	16W	19	04-Dec-91	BATSON DRILLING SERVICE	DOMESTIC	NEW	SKYHAWK
NO	YES	YES	SCIPIONI, VINCE	4448-011-068						BATSON DRILLING SERVICE	DOMESTIC	NEW	SKYHAWK
NO	NO	YES	JOBBINS, CHARLIE	4448-011-069							DOMESTIC	NEW	SKYHAWK

EXHIBIT "F"


91302
90290
90265
MALIBU
BIG ROCK
PACIFIC OCEAN
TUNA CYN. WATERSHED BOUNDARY
SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA
(NOT OPEN)
PACIFIC COAST HWY
SCHUEREN
PIUMA RD
SADDLE PEAK
LOST HORIZON
FLORES
LAS FLORES CANYON
PACIFICO
CALLE DEL PACIFICO
CARBON BEACH
LA COSTA BEACH
MALIBU PIER
MALIBU LAGOON COUNTY BEACH
MALIBU POINT
MALIBU COLONY DR
SERRA RETREAT
MALIBU CREEK
CIVIC CENTER
BIG ROCK BEACH
SEE MAP 628
SEE MAP 630
EXHIBIT F (2 OF 3)

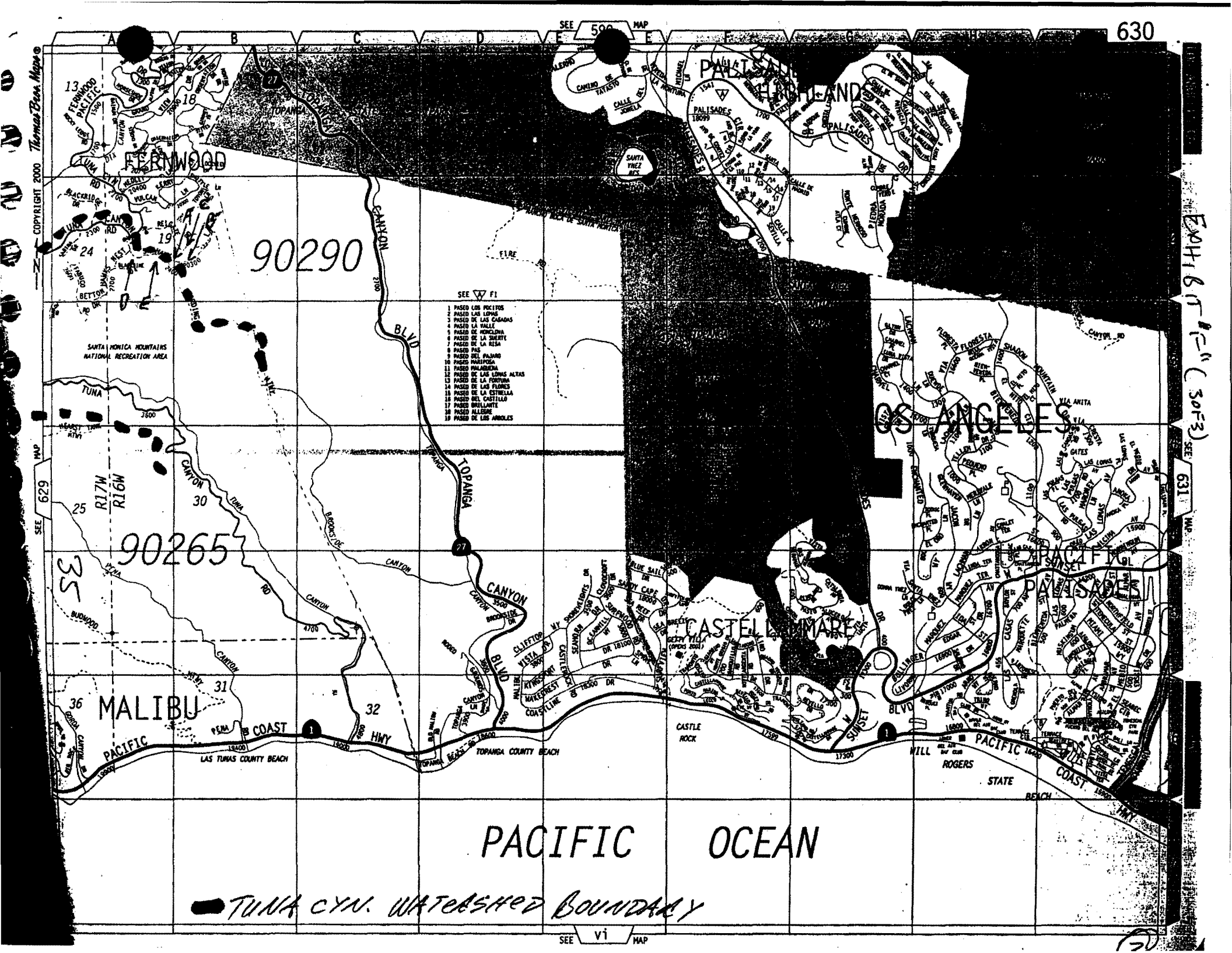

630
SEE 599 MAP
SEE 629 MAP
SEE 631 MAP
SEE VI MAP
COPYRIGHT 2000 Thomas Bros. Maps
EXHIBIT "C" (3 OF 3)
FERNWOOD
PACIFIC
PALISADES
HIGHLANDS
TOPANGA
90290
90265
LOS ANGELES
MALIBU
CASTELLAMMARE
PACIFIC PALISADES
SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA
TOPANGA CANYON BLVD
TUNA CANYON RD
SUNSET BLVD
PACIFIC COAST HWY
LAS TUNAS COUNTY BEACH
TOPANGA COUNTY BEACH
CASTLE ROCK
WILL ROGERS STATE BEACH
PACIFIC OCEAN
R17W
R16W
TUNA CYN. WATERSHED BOUNDARY

EXHIBIT "G"

WATER CODE SECTION 13750.5-13755

13750.5. No person shall undertake to dig, bore, or drill a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, to deepen or reperforate such a well, or to abandon or destroy such a well, unless the person responsible for that construction, alteration, destruction, or abandonment possesses a C-57 Water Well Contractor's License.

13751. (a) Every person who digs, bores, or drills a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, abandons or destroys such a well, or deepens or reperforates such a well, shall file with the department a report of completion of that well within 60 days from the date its construction, alteration, abandonment, or destruction is completed.

(b) The report shall be made on forms furnished by the department and shall contain information as follows:

(1) In the case of a water well, cathodic protection well, or groundwater monitoring well, the report shall contain information as required by the department, including, but not limited to all of the following information:

(A) A description of the well site sufficiently exact to permit location and identification of the well.

(B) A detailed log of the well.

(C) A description of type of construction.

(D) The details of perforation.

(E) The methods used for sealing off surface or contaminated waters.

(F) The methods used for preventing contaminated waters of one aquifer from mixing with the waters of another aquifer.

(G) The signature of the well driller.

(2) In the case of a geothermal heat exchange well, the report shall contain all of the following information:

(A) A description of the site that is sufficiently exact to permit the location and identification of the site and the number of geothermal heat exchange wells drilled on the same lot.

(B) A description of borehole diameter and depth and the type of geothermal heat exchange system installed.

(C) The methods and materials used to seal off surface or contaminated waters.

(D) The methods used for preventing contaminated water in one aquifer from mixing with the water in another aquifer.

(E) The signature of the well driller.

13752. Reports made in accordance with paragraph (1) of subdivision (b) of Section 13751 shall not be made available for inspection by the public, but shall be made available to governmental agencies for use in making studies, or to any person who obtains a written authorization from the owner of the well. However, a report associated with a well located within two miles of an area affected or potentially affected by a known unauthorized release of a contaminant shall be made available to any person performing an environmental cleanup study associated with the unauthorized release, if the study is conducted under the order of a regulatory agency. A report released to a person conducting an environmental cleanup study shall not be used for any purpose other than for the purpose of conducting the study.

EXHIBIT "H"

TERRY VALENTE
21928 Altaridge Dr., Topanga, CA 90290

December 20, 2000

Mr. Mark Jason
20384 Seaboard Drive
Malibu, CA 90265

RE: Well Permit
20556 Betton Drive, Topanga, CA

Dear Mark,

I spoke with Mr. Dino Zanini yesterday regarding the performance of his well located at 20300 Skyhawk Lane. He has not used his well in 3-4 years because his generator was stolen. He currently has a water tank and imports water and is in the beginning phase of his residence construction. He staied that his well performed perfectly prior to the loss of his generator.

Sincerely,

Terry Valente

Terry Valente

*office (310)456-8990 * fax (310)456-2012 * cell/pager (310)418-1231*

EXHIBIT "I"

UCLA SCHOOL OF MEDICINE
Division of Plastic and Reconstructive Surgery

MALCOLM ALAN LESAVOY, M.D., F.A.C.S.
Professor of Plastic and Reconstructive Surgery
UCLA Medical Center

Chief, Plastic and Reconstructive Surgery
Harbor/UCLA Medical Center
Torrance, CA

Mail to:
UCLA Medical Center
10833 Le Conte, 64-128
Box 951665
Los Angeles, California 90095-1665
Tel: (310) 825-1647 Fax: (310) 825-2785

August 24th 1995

Don W. Schmitz, Jr.
The Land and Water Co.,
29395 Agoura Rd Suite 205
Agoura Hills, CA 91301

RE: Chard Road, Topanga.

Dear Don,

I received a copy of your letter dated August 8th 1995 along with a copy of Tom Bates' letter to you dated July 31st 1995 from my Attorney, Mr. Alan Block yesterday. I have read the 2 letters carefully and would like to respond.

First of all, I hope you will understand that I purchased my property at the end of Chard Road with the intention of living in peace and quiet in the serenity of the hills of Topanga with an unobstructive view to the ocean, with room for my horses and miles in which to ride. I had been told that no further development could take place beyond my property, and was shocked and surprised to find out that this is not true.

My first inclination of activity was when Mr. John McNeil came onto my property for surveying purposes. He stated that there were multiple lots beyond my property and he was conducting the surveying for that group. Obviously, I was shagrined and discussed this with my realtor who basically was unaware that any permits of properties were filed. She told me that if anyone knew of these properties that Mr. Tom Bates, of Malibu Realty would, and she subsequently contacted him.

My girlfriend's parents live in Germany and they were interested in property in Topanga (as a matter of fact in March they looked at a number of other properties that were unacceptable) and we felt that a meeting with Tom Bates would be a good opportunity to look at a property close to mine. We met with Tom on a Saturday,

looked at the property for sale, and serendipitously, found out that he knew everything about these new developments. He was very cooperative, and told us what he felt may be in the future for that land. He did tell us that each of the property owners would have to come up with $50,000 to improve the road, along with bringing in subterranean electricity and water, but he had no idea when this would occur.

This meeting with Tom Bates was on a Saturday morning. One day later, on Sunday, a huge bull dozer was parked on my neighbor's property adjacent to the road easement between our two properties, and on Monday morning the "blading" commenced. Needles to say, I was shocked and shagrined. Neither I, nor my adjacent neighbor (James and Maryetta Gillogly) or the next neighbor to the east, (Vincent and Sonje Scipioni) received any official or unofficial notification from anyone that this was being done. It was my impression that aside from some legal ramification of a need to notify, at least common courtesy would suggest that one would notify people prior to bringing a huge bull dozer through someone's property (even though this is a legal easement!).

I subsequently called the Building and Safety office who stated that this was "illegal and that not one blade of grass or one stone should be unturned unless there is a permit". The Building and Safety office checked whether any permits had been filed; they said there were not, and they suggested we call the Sheriffs office, who sent three sheriffs to the site. The sheriffs were somewhat disturbed because when they finally got here, they stated that this was not their "problem" and that we should call the Coastal Commission. We then called the Coastal Commission and spoke to a representative who stated that there were no permits on file and that they would look into it. They were giving this case to Mr. Terry Voss. They also said that Mr. Voss would get back to me (which he never did). That evening, I called my two adjacent neighbors and asked them if they had heard anything about this situation and they were as shagrined and upset as I. They also called the Coastal Commission to ask for an investigation. Subsequently, the "violation was filed" because there were no permits on file. To date, I still have not received any response from the Coastal Commission.

In any event, these events transpired because of a <u>lack of communication</u>. When I moved to the property on Chard, I took special pains and efforts to get telephone numbers of my neighbors, called each one of them personally on numerous occasions to inform them as to my plans, that there would be a lot of noise for a few days because the Coastal Commission forced me to cut down 70 pine trees around my "pad" prior to any construction. All along the way, I explained to each and every

neighbor exactly what was going on and hoped that I did not disturb their day or their serenity. In my opinion, this is an example of what communication should be like, and not how you and your clients have handled this situation. Obviously, if all of us where informed, there would have been no problems, no calls to the Building and Safety department, the Coastal Commission, the Sheriffs office, etc etc, and no childish responses by you to the Coastal Commission about trees that I planted or did not plant, would have been needed. Simple communication (as all good neighbors should consider) should have occurred. An off-the-cuff serendipitous and unofficial hearsay comment by Tom Bates one day prior to a Sherman Tank rolling down Chard is totally inappropriate, and not communication.

Don, I also found you to be somewhat affable and interesting when you "moseyed up" to my property a few weeks ago while "being in the area and enjoying the day on a Sunday". At first blush, I take things at face value, but it is now obvious that you were there for other informational reasons. In any event, I definitely do not want to be in any adversarial role with your clients. I will be happy to cooperate in any possible way I can, assuming that appropriate legal and correct measures (that you are well aware of) are taken. We all live by rules and have to abide by them. However, I will not be a passive spectator to injustices or inproprieties.

I personally, (and my adjacent neighbors) moved to this area for a particular reason and are concerned that these new households will cause Chard Avenue to be a major thorough-fare of construction and resident traffic. This obviously will upset the serenity of this little part of our world, however, I completely understand the investment and the freedom that your clients must exercise. I accept your invitation to participate in some small way with your clients in their development process. I definitely am not one to become acrimonious or an obstructionist.

For your information, my neighbors who have lived in this area for many years, told me that before the fire in November 1993, even when Chard Road was a severely rutted, almost impassible road, that campers and homeless people living in their cars would somehow make it down to your clients' properties. Great concern was evidenced because of the possibility of camping fires, drugs, and undesirables in this area that could place the legal residence in some amount of jeopardy. As a matter of fact, the legal residents tried to block the road with some boulders and rocks from time to time but were always thwarted. It even was reported to me that a major heroin arrest was made down in that area. Now, that you have bladed the road, and made it more accessible, these activities have returned. There is now a daily and nightly procession of cars into your clients properties, for what reason, only one can guess. I am sure they are not there to survey the boundaries at night.

When we moved into this property, we even contacted the Sheriffs department and considered constructing a gate that would allow access to the fire department for the obvious safety reasons.

Regarding the letter from Tom Bates to you of July 31st 1995, he wrote that either "Sabine or Dr. Lesavoy had spoken to Jerry Sales on the phone and that Jerry Sales had gone to my home prior to or the day that the repair of the road had taken place". The truth of the matter is that when the bull dozer arrived, Sabine walked down to the area and asked the man by the bull dozer (who evidently was Jerry Sales), what was going on? Very nervously, Jerry Sales replied that he was grading the road pursuant to a request from the fire department. He also stated that he would return later that afternoon when I got back from work to explain what was going on. Jerry Sales never returned at any time, nor did he call us on the telephone or come to my home. I personally have never spoken to Jerry Sales.

In closing, I want to re-emphasize the fact that I do not stand in an adversarial position regarding your clients and their property and their freedom to do what they choose on their own property. My only concern is that communication be forthright, honest, and available in a timely fashion. I would very much like to participate and help in any way that I can, assuming you and your clients' intentions are honorable.

Sincerely

Malcolm A. Lesavoy, M.D.
MAL:po
ENC.

c.c. Mr. Alan Block, 1901 Avenue of the Stars, Suite 1901, Los Angeles, CA 90067
Mr. Thomas Bates, Malibu Realty Inc, 23405 PCH, Malibu, CA 90265
Mr. & Mrs. James Gillogly, 2520 Chard, Toganga CA 90290
Mr. & Mrs. Vincent Scipione, 20400 Sky Hawk Lane, Topanga CA 90290.
Mrs. Anne Christine Von Wetter/

EXHIBIT J

4-22-99 MESSENGER

Big Win for TUNA, TASC

By Michele Johnson

On Thursday, April 15, the California Coastal Commission denied property owner Marian Olson an extension of a previously approved permit to build a 4,000-square-foot home with a swimming pool on Fabuco Road in Tuna Canyon. The construction would have included extending the private road and water main improvements about 800 feet beyond the existing approved road, and required grading 1,352 cubic yards. Since the extension of her permit has been denied, Olson must begin the approvals process all over again in order to build.

The property is one of 21 parcels that opponents claim could become part of a de facto development on prime ocean-view acreage in Tuna Canyon. And if the private road leading to those properties is extended, it could open the way for another 50-acre parcel to be developed.

Roger Pugliese, head of TASC, (Topanga Association for a Scenic Community) called it "a small victory that sends a message out that the Coastal Commission is environmentally friendly again." Pugliese insists it's a new ball game at the Coastal Commission, now with four new Davis appointees seated and a new Chair, Sarah Wan. "Under her guidance," Pugliese said, "the Coastal Commission is putting forth the mandate they're charged to do—protect the environment."

Representatives of TUNA (Tuna United Neighborhood Association) and TASC arrived at the hearing held on the Queen Mary in Long Beach in force to oppose extension of the permit. In order to fight the approval, TUNA and TASC needed to show "changed circumstances" since the last approval. Marian Olson was represented by attorney Don Schmitz and realtor Tom Bates.

Each side was allowed only 10 minutes to argue their case. Don Schmitz argued that there were no changed circumstances and that the opponents just wanted to keep the area their own private park.

Speakers for TASC and TUNA included Kay Austen, Malcolm Lesavoy, Roger Pugliese, Robin Maxwell and TASC attorney Frank Angel. Each were given two minutes apiece to make their points. They insisted there are changed circumstances, especially "new information describing the extreme geological instability of Tuna Canyon Road," as TASC attorney Frank Angel stated in his report to the Commission. Tuna resident Kay Austen brought a 1978 County geological report to the hearing indicating that Tuna Canyon Road lies on a huge ancient landslide. According to Assistant County Engineer Dean Lehman, the slide that closed the road for five months in 1998 was "a smaller landslide in a...very large ancient landslide." That means that Tuna, now open only to one-way south-bound traffic, could easily be subject to slides again. That could leave TUNA residents with only one egress in the event of fire or other emergency. Austen reiterated before the Commission the point she'd made in a letter she'd submitted earlier: "With the addition of perhaps 40 more residents and 35 more cars, I and other residents of Tuna Canyon will be seriously endangered when we again need to escape a fast-moving fire."

Austen said, "It's a significant victory because her (Olson's) home was establishing a beachhead 3,000 feet into the canyon, paving the way for future growth." For the victory, Austen primarily credits TUNA leaders Sabine Niederberghaus and Malcolm Lesavoy "that have persevered and funded the fight for three years."

There were two permits previously approved on the acreage, but each are up for extensions by the fall. And, said Roger Pugliese, TASC and TUNA will be there to oppose them, too. ■

LESAVOY FUNDS FIGHT

 8-25-99 MESSENGER

EXHIBIT K

August 13 Coastal Commission Hearing a Watershed Event

By Michele Johnson

Ironically it will be on August 13—Friday the 13th—that the Coastal Commission will decide whether or not to approve the application by Marian Olson for a permit to build in a sensitive area of the Tuna Canyon Watershed. The proposed construction would include a 4,000-square foot home, 800-foot road extension, four-car garage and swimming pool.

If the application is approved, it would mark the third of 16 parcels approved by the Coastal Commission for development in that area. TUNA (Tuna United Neighborhood Association) and TASC (Topanga Association for a Scenic Community) have both gone on record, strongly opposing the de- facto development. Roger Pugliese, president of TASC, cites concerns about the cumulative impact of 16-plus homes being built in the ecologically sensitive area, and on behalf of TASC is encouraging the Santa Monica Mountains National Conservancy to purchase the land. Most of the owners have also gone on record, refusing to easily submit to having their land purchased for parkland.

OLSON PERMIT PING-PONG

The Olson permit was initially given a two-year approval in a December, 1996 vote of the Coastal Commission, but a one-year extension of that approval was denied by a Commission vote on April 15, 1999. At that time, a majority of the Commissioners agreed that changed circumstances may have affected the project's consistency with the Coastal Act. At the April hearing, the Commission requested an investigation into the new issue of road access during an emergency. Opponents had argued that since Tuna Canyon Road has been cut back to one-way traffic due to storm damage, Topanga Canyon Boulevard and Saddle Peak—the only exits during a fire—could not handle increased traffic during an emergency. Opponents had also renewed their claim of cumulative impact due to sequential residential and road development projects proposed there and cited the possible impact on the Steelhead Trout, recently discovered in Topanga Creek.

Now, owner Marian Olson is attempting to answer these charges as she applies once again for a permit to build her home. She comes to the Commission, armed with a letter, according to the Coastal Staff Report, from Fire Captain James Jordon, who surprisingly states that the closure of Tuna Canyon Road to two-way traffic has no impact on the egress ability for the residents. He states that it's sufficient for Tuna Canyon residents to find egress during a fire down Topanga Canyon Boulevard or over Saddle Peak to Malibu Canyon or Kanan-Dume to PCH.

Other information supplied to the Staff by various sources denies proof of the existence of Steelhead Trout in the Tuna Watershed. Coastal Commission Staff also asserts in its Report that the mitigation measures they propose would prevent any cumulative impact.

INJUNCTION LIFTED

Meanwhile, the injunction that prevented further grading for the road leading to the already permitted Jason and Sayles properties has been lifted. As of this date, no further grading has taken place. Owner Mark Jason, in a letter to the *Messenger* (see "Letters," this page) criticizes TASC for spending money in an attempt to litigate against the approval of his permit. In response, Pugliese says that very little TASC money has been used for the effort. Most of the legal fees have been picked up by private donors. What TASC money has been spent has come from their share of proceeds from the Saturday Farmer's Market. Also, Pugliese continued, no money is spent without approval of the TASC board, and with general approval of membership. He said there has been nothing but support voiced by members of TASC for the effort to stop construction in the Tuna Canyon Watershed.

TASC and TUNA plan to show up in force at the meeting to present their case against the planned development. They invite every concerned Topangan to join them at the Coastal Commission Hearing which will be held Friday, August 13, at the Windham Hotel near LAX, at 6225 West Century Boulevard. The Commission convenes at 9:30 a.m., but the Olson permit, item number 8-I on their agenda will probably not be heard until early afternoon. ■

Pugliese says legal fees paid by private donors.

"EXHIBIT L"

COURT OF APPEAL OF THE STATE OF CALIFORNIA
FOR THE SECOND APPELLATE DISTRICT
DIVISION 4

TOPANGA ASSOC. FOR A SCENIC COMMUNITY
Plaintiff And Appellant
v.
CALIFORNIA COASTAL COMMISSION
Defendant-Respondent

CASE NUMBER: B122513
NOA/PET DATE: 05/26/98
STATUS: Active
PRIORITY:
CAUSE: Appeal
CASE TYPE: Civil
DISP DATE:
FINAL DISP:
ORIGIN: Received from superior court
CATEGORY: civo Civil complaints - other

TRIAL COURT INFORMATION

Case No.: BC165640
County: Los Angeles
Court: Los Angeles County Superior Court
Judge: O'Brien, Robert
Jud. Date: 03/27/98

ATTORNEY - PARTY

Frank P. Angel Bar No. 00113301
Law Offices Of Frank P. Angel
10951 W. Pico Blvd
Third Floor
Los Angeles, CA 90064-2126

Plaintiff and appellant
Topanga Assoc. For A Scenic Co

Tuna United Neighborhood Assoc

G. R. Overton Bar No. SAGLOS-01
Office of the Attorney General
300 S. Spring Street
Fifth Floor
Los Angeles, CA 90013

Defendant-respondent
California Coastal Commission

03/10/99
Granted - extension of time.
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co

03/22/99
Appellant's opening brief.
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co

03/24/99
Appellant's appendix filed.
appellant's appendix to AOB (permission to file, granted 3/24/99)

04/22/99
Stipulation filed to:
stay appeal.

04/27/99
Order filed.
Joint application to stay appeal is granted. All briefing is stayed until 7-30-99. Rb is due by 7-30-99.

05/17/99
Petition for writ of supersedeas filed.
immediate stay requested (1 vols. of exbts filed in support)

05/21/99
Stay order filed.
It is ordered that all grading, other construction work or site alteration are stayed pending further order of this court.

05/21/99
Order filed.
Respondents are requested to file opo to writ by 6/2/99.
This court's order of 4/27/99 is vacated & RB is due 6/30/99
ARB is due by 7/30/99.

06/02/99
Opposition filed.
by respondents Calif. Coastal

06/02/99
Opposition filed.
by rpi Olson and 1 vol. of exhibits 1 - 10

06/04/99
Reply filed to:
by appellant to opo filed by respondent on 6/2/99

08/05/99
Requested - extension of time
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co

08/05/99
Granted - extension of time.
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co

08/16/99
Requested - extension of time
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co
ext. to 8-23-99 to file arb

08/23/99
Granted - extension of time.
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co

08/23/99
Appellant's reply brief.
Attorney: Angel, Frank P.
Party: Tuna United Neighborhood Assoc
Attorney: Angel, Frank P.
Party: Topanga Assoc. For A Scenic Co

08/23/99
Case fully briefed.

09/16/99
Filed declaration of:
by Curtis Horton dtd 9/14/99 re:Admin.Record in BC165640 & BC174565 to be transmitted by S.C. & Admin. Record in BC159039 already here in B113639. To be used in appeal B122513

09/16/99
Exhibits lodged.
Admin. Record in BC159039 (4 volumes)

END OF DOCKET SHEET

Court requested extension/requested exhibits from Superior Court
ROM 10-22-99 extended to NOV.

Exhibit C

DECLARATION OF D. SCOTT MOORS
IN OPPOSITION TO REQUEST FOR REVOCATION OF
COASTAL DEVELOPMENT PERMIT NO. 4-96-025-A3

I, D. SCOTT MOORS, declare as follows:

1. I am an Associate Geologist with Bing Yen & Associates, Inc., Geotechnical and Environmental Consultants, located at 2310 Ponderosa Drive, Suite 1, Camarillo, California 93010. I am a Certified Hydro-Geologist (CHG 607, exp. 9/30/02) and Certified Engineering Geologist (CEG 1901, exp.3/31/02) in the State of California.

2. I am the primary Hydro-Geologist responsible for the technical reports submitted to support the application made by Mr. and Mrs. Mark Jason for a Coastal Development Pemit to allow the drilling of a water well at the property located at 20556 Betton Drive, Topanga Canyon area, Los Angeles County, California. Specifically, I personally supervised and prepared the reports and supporting documentation submitted by Mr. Jason in support of his Coastal Development Permit No. 4-96-025-A3, including the reports dated May 31, 2000, August 3, 2000, August 25, 2000 and September 21, 2000.

3. In preparing those reports I conducted general research regarding water usage for residential properties and in the Malibu area. Specifically, either myself or my staff had direct contact with the City of Malibu Building and Safety Department and the Los Angeles County Water Works District No. 29. In addition, I relied on data provided by the American Water Works Association Research Foundation. I also worked directly with Mr. Mark Johnsson, Senior Geologist for the California Coastal Commission, with regard to the preparation of the above-referenced reports. My research and contacts in this regard are detailed in my correspondence dated January 12, 2001, to Mr. James Johnson of the California Coastal Commission.

4. All of the reports and correspondence which I have submitted in support of Mr. Jason's application include accurate and complete information as I determined was relevant for the purposes of such reports.

5. I did not intentionally include any inaccurate, erroneous or incomplete information in any such reports or correspondence. All of my reports were reviewed, and ultimately approved, by Mr. Mark Johnsson, Senior Geologist for the California Coastal Commission.

6. I have reviewed the information submitted by Ms. Kay Austen requesting revocation of Permit No. 4-96-025-A3, as well as the correspondence submitted by Mr. Philip B. Chandler. I have specifically addressed the issues raised in those letters in my correspondence dated January 12, 2001, to Mr. James Johnson of the California Coastal Commission. Most importantly, no question raised or information contained in those letters would cause me to reach a different conclusion than that stated in my previous reports to the Coastal Commission regarding this matter.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 16th day of January, 2001 at Camarillo, California.

B. SCOTT MOORS

Exhibit D

STATE OF CALIFORNIA--THE RESOURCES AGENCY GRAY DAVIS, Governor

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

4 August 2000

MEMORANDUM

To: James Johnson, Coastal Program Analyst
From: Mark Johnsson, Senior Geologist
Re: Jason water well

I have reviewed the following documents in reference to the proposed water well for the Jason property at 20556 Betton Drive in the Topanga Canyon area of Los Angeles County:

1) Bing Yen and Associates report "Report of hydrogeologic evaluation 20556 Betton Drive, Topanga Canyon Area, Los Angeles County, California" dated 31 May 2000 and signed by D. Scott Moors.

2) Bing Yen and Associates Letter Report "Response to verbal comments by California Coastal Commission, 20556 Betton Drive, Topanga Canyon Area, Los Angeles County, California" dated 3 August 2000 and signed by Scott Moors.

In addition, I have spoken with Mr. Moors and discussed his findings with him.

In reference (1), Mr. Moors estimates a total household water usage of 400 gallons per day (gpd), all of which is to be provided by the proposed well. Of this volume, an estimated 80 gpd will be used for irrigation. He estimates that 20% of the 80 gpd, or 16 gpd, will infiltrate and recharge ground water, whereas the rest will be lost through runoff and evapotranspiration. Of the 320 gpd used for household purposes, Mr. Moors estimates that 95%, or 304 gpd, will be sent to a septic system, which will eventually recharge to ground water. Thus, of the 400 gpd extracted, 320 (304+16)will be returned to ground water, leaving a net ground water loss (use) of 80 gpd. These numbers seem reasonable, and I concur with these findings.

Mr. Moors then uses a simple approach to calculate lowering of the water table to be expected from this amount of ground water withdrawal. His approach is conservative in that he assumes no inflow from adjacent properties; an assumption that is reasonable if applied on a somewhat more regional scale since the site lies near the top of a ridge of the Santa Monica Mountains and is hydrologically fairly isolated by canyons. Based on assumed values of porosity and specific yield for the aquifer, he then calculates a drawdown for a 50-year design life of 6.9 feet; this can be adjusted to 10.35 feet for the 75-year design life usually adopted by the Commission. In fact, this is a rather simplistic model; drawdown would not be equal under the entire property, but in fact would be greater than 10.35 feet at the well itself, and taper to zero

at some distance from the well, forming a cone of depression. It is impossible to accurately assess the shape of this cone of depression or the maximum drawdown at the well without additional information. Due to the proposed location of the well, the majority of this cone of depression would not be under the subject property.

Further, and as addressed in reference (2), the values of porosity and specific yield assumed in this calculation may tend to underestimate drawdown. A lower value of porosity than the one used would increase theoretical drawdown--the "low 20's" figure cited in reference (2) yields a theoretical drawdown of 14.9 feet over the 75 year design life (for 23%). Actual drawdown would be greater than this figure at the well itself and taper off to zero at some distance from the well. Even a porosity value of 23% may be too high for the geologic units underlying the site, with the possibility that drawdown would be correspondingly greater.

Although neither the extraction of 80 gpd nor the calculated drawdown are likely to significantly affect ground water recharge to the blue-line streams surrounding the site, the cumulative effects of additional ground water extraction and drawdown if the adjacent 15 parcels are similarly developed may be significant. Given the elevation of the water table observed nearby in the Jobbins and Zanini wells, it appears possible that the water table surfaces in the bed of the small tributary to Tuna Canyon east of the site. Indeed, reference (1) above shows this geometry in the interpretive cross sections provided. Thus, ground water may contribute to the flow of this tributary, at least seasonally. Lowering the water table might prevent this contribution in the uppermost portions of this stream. Since similar conditions probably exist in Tuna Canyon streams to the south and west of the site, all of the blue-line streams south, east, and west of the site may be similarly affected.

Even if the ground water table is not sufficiently lowered by development to eliminate seasonal recharge to the stream beds, a net removal of up to 1280 gpd (80 gpd x 16 units) could occur if, as seems likely, the recharge area is not receiving groundwater inputs laterally.

In summary, the proposed well is unlikely to significantly affect the blue-line streams when considered in isolation. The cumulative effect of developing the entire subdivision is more difficult to assess. Without additional hydrologic information, it is impossible to assess whether the calculated lowering of the water table or the withdrawal of the estimated 1280 gpd would significantly change the character of the streams, but there is some cause for concern. I have conferred with staff biologist John Dixon regarding the effects that the reduction of 1280 gpd might have on the habitat associated with the streams. In the absence of better information on expected changes in stream character, an assessment of habitat changes is impossible.

Information required to better assess the changes to be expected from the development of 16 water wells on the subdivision include: an assessment of seasonal groundwater contributions to the streams, hydrographs of the streams, the location of the water table beneath the streams and its seasonal variation, and ground water flow velocity.

I hope that this information is useful in formulating your recommendation. Please do not hesitate to contact me if you have further questions.

Sincerely,

Mark Johnsson
Senior Geologist

SANTA MONICA LOS ANGELES IRVINE

Exhibit E

4-96-025-A3

PCR

November 8, 2000

Received at Commission Meeting

NOV 16 2000

From:_____

Mr. Mark Jason
20384 Seaboard Road
Malibu, CA 90265

5-A

Re: Comments on Bing Yen & Associates' Hydrogeologic Evaluation and Responses to Comments by California Coastal Commission, 20556 Betton Drive, Topanga Canyon Area, Los Angeles County, California

Dear Mr. Jason:

I have reviewed and offer the following comments concerning the above referenced documentation, consisting of:

- Report of Hydrogeologic Evaluation (Bing Yen & Associates, Inc., May 31, 2000);
- Response to Verbal Comments by California Coastal Commission (Bing Yen & Associates, Inc., August 3, 2000);
- Second Response to Comments by California Coastal Commission (Bing Yen & Associates, Inc., August 25, 2000); and,
- Additional Hydrogeologic Information (Bing Yen & Associates, Inc., September 21, 2000).

First, let me clarify that I am not a hydrologist, geologist or hydrogeologist; I am a consulting biologist with over 26 years of practicing experience. Early in my career I co-authored the 1976 Los Angeles County Significant Ecological Areas (SEA) Study, at which time Tuna Canyon was designated as a SEA. Since that time I have been responsible for numerous biological assessments in the Santa Monica Mountains, including the preparation of a cumulative impact analysis for the Tuna Mesa Property Owners Association in 1978 and, more recently, a cumulative impact assessment for a neighbor of yours in February 2000. In my present role as Director of Biological Services at PCR Services Corporation (PCR), my staff and I are engaged in preparing the Year 2000 Significant Ecological Areas Update Study for the County. I mention my background to advise you that my comments are based on my experience with ecosystems, and not technical expertise in groundwater transport systems and surface hydrology.

One Venture, Suite 150, Irvine, California 92618-3328 INTERNET www.pcrnet.com TEL 949.753.7001 FAX 949.753.7002

Bing Yen & Associates' (BYA) initial analysis (May 31, 2000) supports their finding that your project's effect on hydrogeologic water balance will be negligible, particularly considering the fact that your project is a single family residence on a 2.6-acre lot within the 1,524-acre Tuna Canyon watershed. BYA's determination did require certain assumptions for modeling purposes; however, the assumptions did not seem unreasonable given the project's extremely limited scope of potential effect. In fact, I wondered whether the net groundwater withdrawal estimated by BYA (80gallons/day), leading to a theoretical draw down in the groundwater table of one to four feet over a 50-year period, would be overshadowed and rendered moot by natural cycles in rainfall and groundwater replenishment.

Similarly, in its responses to comments by the California Coastal Commission (August 3, 2000, August 25, 2000 and September 21, 2000), BYA continued to support its findings in a logical, consistent manner. BYA provided a list of its reference sources, locations of nearby wells and an estimated time-frame for groundwater recharge via the project's proposed septic system. Most relevant to the issue, BYA's analysis of cumulative impacts did not find effects to be significant. I found it interesting that BYA eluded to the fact that the estimated 75-year, 15-foot cumulative groundwater draw down approximated the water-table line in the bottom of Tuna Canyon, based on a cross-section drawn at a scale, 1" = 400'. Again, it occurred to me that attempts to measure such a small potential effect in the context of the entire Tuna Canyon watershed may not be the most meaningful to the project's review. Moreover, I have not seen nor know of any factual evidence to contradict BYA's findings or to cause a non-hydrogeologist (such as myself) to question their veracity.

With regard to the issue of groundwater balance in general, I have personally accumulated several basic understandings of the relationship between development, groundwater/surface water resources and riparian habitats. These understandings have come from anecdotal observations and working with trained experts in the field. First, it is my understanding that problems with over drawing groundwater resulting in the loss of riparian habitat in an area are typically associated with high demand uses particularly under arid conditions where evapotranspiration results in significant losses. As examples, desert golf courses require up to 2,000,000 gallons per day for irrigation in the summer; and the Tucson metropolitan area has seriously lowered its underlying groundwater table resulting in significant losses of mesquite bosques. Second, groundwater tables can be recharged and replenished, and even be caused to rise. I have heard this is the case in the Coachella Valley where imported water used for irrigation of agriculture and golf courses is causing the groundwater table to rise. Third, many historical intermittent streams in Southern California have become perennial as

a result of development in their watersheds. This is due to added landscape irrigation and runoff from hardscape areas (e.g. roofs, driveways, and streets) that occur year-round. Fourth, and finally, except in areas of extremely limited groundwater, rural residential development alone is not associated with overdraft conditions and adverse effects on riparian habitats the overwhelming majority of the time.

Based on these understandings, I do not perceive that the subject project has the potential to present a problem. If you assume a typical house in the surrounding subdivision has a 2,500 square foot foundation, and the irrigated landscape area and Zone A fuel modification extends 50 feet out, the total maximum irrigation needs encompasses approximately 20,000 square feet. Subtract from this the area of driveway, patio, pool, and other non-irrigated landscape area (say 40 percent of the total yard area) and you are left with somewhere in the neighborhood of 12,000 square feet (about 0.28 acre) of irrigated area. Add this to normal residential water use (toilets, bathing, washing, etc.), and intuitively, I would not foresee a problem given that the majority of the entire Tuna Canyon watershed is undeveloped. The same case would apply to the cumulative analysis. Even if all 15 lots in the subdivision were developed, and the total landscape area for these lots became approximately 4.2 acres, I still would not foresee a problem. I have seen literally hundreds of examples of thriving riparian habitats including surface water flows downstream of far more dense development than is being proposed by you and in the surrounding subdivision.

For the reasons discussed above, I would accept the BYA analysis and responses to Coastal Commission Staff comments as conclusive that the effects of your project, on both an incremental and cumulative basis, are not potentially significant in regards to downstream riparian habitats.

I hope this input is helpful. If you have any questions or comments, please contact me.

Sincerely,
PCR SERVICES CORPORATION

Steven G. Nelson
Director of Biological Services