STATE WATER RESOURCES CONTROL BOARD

IN THE MATTER OF PERCHLORATE CONTAMINATION AT A 160-ACRE SITE IN THE RIALTO AREA (SWRCB/OCC FILE A-1824)

ADVOCACY TEAM REBUTTAL BRIEF

JUNE 6, 2007

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INTRODUCTION

This rebuttal brief is submitted by the Santa Ana Regional Water Quality Control Board Advocacy Team in rebuttal to arguments presented by the Emhart Entities, Goodrich and Pyro Spectaculars, Inc. (PSI). The dischargers have submitted arguments in their briefs of April 17, 2007 in opposition to the Proposed Amended Cleanup and Abatement Order No. R8-2005-0053 (the CAO) prepared by the Advocacy Team. The arguments, in large measure, consist of attempts to re-direct this Board's attention away from them, the parties responsible for the perchlorate contamination affecting numerous wells in the Rialto area. They do this, for example, by pointing fingers at other potentially responsible parties. The dischargers go so far as to accuse the prosecutor (the Advocacy Team) of improperly closing the McLaughlin Pit and then building this claim into an argument that the Advocacy Team is improperly motivated in its pursuit of the CAO. As will be seen below, the arguments are entirely without merit. Each of the dischargers also raises several legal issues; Goodrich in particular has launched a barrage of legal arguments (in a brief of some 332 pages) in hopes that some technicality will provide it relief. These arguments are not new. As will be seen below, most of the major points raised by the dischargers have been addressed by the State Water Board in its precedential decisions over the last 20 years. Those decisions have come down in favor of accepting reliable evidence to support cleanup and abatement orders issued by the regional boards. They have come down in favor of protecting water quality and on the side of requiring

the guilty parties—rather than the victims—to conduct reasonable investigations and remedial actions.

The Advocacy Team has spent a considerable amount of time investigating the perchlorate and TCE discharges in the Rialto area over the past five years.[1] The Rialto 160-acre site investigation followed on the heels of another perchlorate investigation involving a single discharger, Lockheed in the Redlands area. The Rialto 160-acre site involved many potential dischargers who were involved at the property as owners, tenants, and facility operators over the course of over 50 years. The investigation has created many challenges in identifying, among dozens of potentially responsible parties, those few whose activities appear to warrant regulatory enforcement orders. Initially, the staff attempted to name Kwikset and Goodrich in a 2002 CAO, as those parties appeared to be clearly liable and solvent, unlike most of the other dozens of parties known to have some connection to the property. The Regional Board, however, rejected the strategy in favor of requiring that the staff conduct a greater investigative effort to seek out the cooperation of as many of the other parties as possible. This, it was believed, would avoid tedious and drawn out litigation and would result in a quicker response. Unfortunately, the "quicker response" did not materialize. Most of those other additional parties were found to be insolvent or the evidence did not support their liability.

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[1] The State Water Board has heard from various parties that it has been known since 1997 that perchlorate was at least potentially contaminating the water in the Rialto area. However, it was not until 2002, when the Department of Health Services reduced the Action Level from 18 ppb to 4 ppb, that water purveyors took action to close affected wells and the Regional Board turned its attention to the Rialto perchlorate matter.

Having spent many months collecting further evidence in the matter and seeking to avoid the loss of the considerable assets of the Emhart Entities through operation of law in a dissolution action by Emhart Industries, Inc. in the State of Connecticut in 2002, the Advocacy Team issued a CAO to the Emhart Entities in February 2005. A proposed amended version of that CAO is presently before the State Water Board. Although the City of Rialto has initiated a federal court civil case against many parties, including those named in this matter, the CAO remains the single most expedient manner to achieve investigation and remediation.

The Advocacy Team has had an opportunity to review the briefs and supporting material submitted by the dischargers. Several Advocacy Team members have sat patiently through days of deposition conducted by the dischargers and have tried to answer their hundreds of questions. The Advocacy Team has also had occasion to review the information provided by the dischargers' hired experts. As explained below, it remains the position of the Advocacy Team that the facts and law support issuance of the CAO.

APPLICABLE LEGAL STANDARDS

I. Section 13304 authorizes the issuance of the CAO to all of the named dischargers.

The dischargers offer several arguments why Section 13304 doesn't apply to this case. As explained below, the arguments are without merit. Section 13304 has

been held to apply to situations where there is a discharge of waste to the waters of the state or a threat thereof. It has been held to apply regardless of whether or not the discharger has ceased operations and when it no longer owns the affected land. It has been applied against property owners even though they did not themselves discharge the waste and it has been applied to legal successors of the actual discharger. Finally, application of Section 13304 has been upheld regardless of the fact that the discharge may have occurred or commenced prior to 1981.

II. The Advocacy Team is required to show a discharge to waters of the state or discharges that *"threaten"* the waters of the state. Contrary to dischargers' arguments, Section 13304 does not require it to demonstrate that the perchlorate actually reached the wells.

California Water Code Section 13304 provides in part:

> "(a) Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or *threatens to cause* or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates or *threatens to create*, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of *threatened pollution or nuisance*, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts."(emphasis supplied.)

The discharges of perchlorate by WCLC, Goodrich and PSI have apparently entered the groundwater and have traveled southeast toward water supply wells. This is discussed in detail elsewhere herein. However, contrary to the arguments espoused by the dischargers, Section 13304 does not require that the Hearing

Officer find actual contact with waters of the state. Instead, it is enough to support the CAO that there is a discharge that threatens the waters of the state.

The State Water Board has had several occasions to elaborate on this point. For example, in *BKK Corporation*, Order No. WQ 86-13, the Board found that a Cleanup and Abatement Order issued by the Los Angeles Regional Water Board was appropriately issued against a discharger whose activities 'threatened" the waters of the state. The State Water Board there stated:

> "Cleanup and abatement orders may be based upon either: (1) a discharge in violation of waste discharge requirements or *(2) a discharge or threatened discharge which creates or threatens to create a condition of pollution or nuisance*." (at page 4-5) (emphasis supplied.)

In another case involving a cleanup and abatement order issued by the Santa Ana Regional Water Board (*The BOC Group*, Inc., Order No. WQ 89-13), the State Water Board determined that "the existence of the [underground storage] tank in the ground and the fact that it was abandoned constitutes a threat to create a condition of pollution or nuisance." Against an argument by the petitioner that there was no evidence of actual pollution or nuisance, the State Water Board noted,

> "The central question in this matter is whether BOC caused the waste to be discharged where it creates or threatens to create a condition of pollution or nuisance. BOC would be liable under Section 13304 if it placed the tank in the ground where it was abandoned and thus threatens to create a pollution or nuisance." (at page 3) (emphasis supplied)

The Advocacy Team believes that the evidence demonstrates that the TCE and perchlorate discharged by Goodrich and the Emhart Entities and the perchlorate discharged by PSI has, indeed, reached the affected wells. However, even if it has not, the evidence shows clearly that their operations have discharged perchlorate to the soils beneath the 160-acre site, where it threatens to migrate to groundwater in the future, and this is sufficient basis under prior State Water Board orders to issue them an order under Water Code Section 13304.

III. Section 13304 (j) does not preclude a CAO against Goodrich's and the Emhart Parties' discharges even though they occurred prior to 1981.

As discussed elsewhere herein, the evidence solidly points to the dischargers as the cause for the Rialto perchlorate plume.[2] Despite the fact that the plume has compromised the availability of healthy drinking water, affected 16 municipal wells, and will cost millions to remediate, the dischargers seek to offload that responsibility on municipalities, individuals, or others. They contend that Section 13304, because it is either entirely or partially not retroactive, does not reach their activities. In short, the dischargers endeavor to free themselves on what essentially amounts to a technicality.

[2] This section addresses arguments made by Goodrich and the Emhart Parties. Pyro Spectaculars, Inc. does not make the same arguments regarding Section 13304(j) and, therefore, has waived any such argument.

Goodrich initially, in a decidedly contorted reading of the statute, contends that 13304(j) proves the Legislature did not intend Section 13304 to be retroactive at all. Goodrich's argument self-destructs. Section 13304(j) states:

> "This section does not impose any new liability for acts occurring before January 1, 1981, if the acts were not in violation of existing laws or regulations at the time they occurred."

Goodrich overlooks the plain meaning of the statute, which is the starting point of statutory interpretation. (See DuBois v. Workers' Comp. Appeals Bd. (1993) 5 Cal.4th 382, 387-388.)

The plain meaning of this section, which Goodrich does not bother to address, is clear: If the acts giving rise to the plume in question were lawful at the time they occurred, the discharger will not be held responsible (at least not under Section 13304) for clean up. The unambiguous intent of the section is to affirmatively and retroactively impose liability on those whose acts prior to 1981 violated the laws in effect at the time.

The State Water Board has interpreted 13304 in this way in precedential orders without exception. (*In re Petition of Aluminum Company of America et al.* (SWRCB 1993) Order No. WQ 93-09; *In re Petition of Lindsay Olive Growers* (SWRCB 1993) Order No. WQ 93-17; *In re Petition of City of San Diego* (SWRCB 1996) Order No. WQ 96-02.) As it is the agency charged with implementing 13304, that interpretation will be entitled to deference by the

courts. (*Yamaha Corp. of America v. State Bd. Of Equalization* (1998) 19 Cal. 4th 1, 7.)

Section 13304(j), therefore, arose as a means to restrict the reach of retroactivity, not to abandon it. Had the Legislature not intended 13304 to apply retroactively at all, it could have written the section to read: "This section does not impose any new liability for acts occurring before January 1, 1981." It went further, however, in conditioning non-retroactivity on the absence of any violations of law in effect at the time. The only reasonable explanation for this limiting language is that the Legislature believed 13304 to have retroactive effect and intended to carve out an exception for conduct that was lawful when it occurred.

As discussed below, the dischargers' actions violated at least two laws in effect before 1981: the Dickey Act and public nuisance.[3]

1. The Dischargers violated the Dickey Act because they failed to file a report of waste discharge.

In their argument, the dischargers focus on the provisions of the Dickey Act that authorize the state to issue waste discharge requirements. A more fundamental requirement of the Act applied earlier in the scenario, however. The Act, which was adopted in 1949, required persons who wished to discharge waste to notify the Regional Board in advance:

[3] Additionally, the conduct may have violated Health and Safety Code Section 5411. It is enough, however, to find that the conduct violated a single provision of law in order to invoke Section 13304.

> "Any person proposing to discharge sewage or industrial waste within any region, other than into a community sewer system, shall file with the regional board of that region a report of such proposed discharge." (Former Wat. Code, § 13054.)

Such uses of the word "shall" in statutes are presumed to impose a mandatory obligation. (*California Correctional Peace Officers Assn. v. State Personnel Bd.* (1995) 10 Cal.4th 1133, 1143.) "The word "shall" generally connotes a mandatory obligation. [Citation.] Thus, 'in most cases,' the Legislature's use in a statute of the word 'shall' indicates that the statute's 'provisions are mandatory. . . .' [Citation]." (*Decker v. U.D. Registry, Inc.* (2003) 105 Cal.App.4th 1382, 1389.)

> "Nonetheless, in construing the statute, the court must ascertain the legislative intent. In the absence of express language, the intent must be gathered from the terms of the statute construed as a whole, from the nature and character of the act to be done, and from the consequences which would follow the doing or failure to do the particular act at the required time. When the object is to subserve some public purpose, the provision may be held directory or mandatory as will best accomplish that purpose." (*CCPOA, supra,* 10 Cal.4th at p. 1143 [internal citations and quotations omitted].)

When viewed as a whole, the Dickey Act's provisions display the overall direction to the Regional Boards (and State Board) to not just abate water pollution problems, but prevent them from arising in the first place.

Under the Act, each Regional Board was required to "[o]btain coordinated action in the abatement, *prevention,* and control of water pollution and nuisance by means of formal or informal meetings of the persons involved[.]" (Wat Code, § 13052(a) [italics added].)

And the Regional Board was directed to prescribe waste discharge requirements to prevent a condition of pollution or nuisance, existing *or threatened*, in the region. (Wat. Code, § 13053. [italics added].)

Such provisions express a preference for problem prevention, not solely correction.

An important ingredient to problem prevention is forewarning. For the Regional Boards to effectively prevent pollution or nuisance they need information about the nature of a discharge prior to commencement. The Dickey Act so provided. It directed those *proposing* to discharge to first inform the Regional Board. Once information was obtained, the Act directed the Regional Board to prescribe waste discharge requirements for the intended discharge in question. (*Ibid.*) Thus, the Dickey Act required submittal of information to the Regional Board in advance in order that waste discharge requirements could be fashioned to prevent the creation of water quality problems.

Had the Legislature not been concerned about pre-informing the Regional Boards, it could have allowed prospective dischargers to submit information only upon the request of the Regional Board. In 1959, the Legislature made a revealing addition to the Dickey Act in this regard [new text in italics]:

> "Any person proposing to discharge sewage or industrial waste within any region, other than into a community sewer system, shall file with the regional board of that region a report of such proposed

> discharge. *Upon the request of the regional board, any person presently discharging sewage or industrial waste within any region, other than into a community sewer system, shall file with the regional board of that region a report of such discharge.*"

(Former Wat. Code Section 13054, as amended by Stats 1959, c. 1299, p. 3453, § 15.)

Thus, the Legislature modified the requirement to submit a report of waste discharge. It required persons "presently" discharging to submit one only when requested by the regional board. As for those proposing a new discharge, however, the statute did not change. Those persons were still required to submit a report in advance. (*Ibid.*) The presence of this dichotomy in connection with the same requirement (submittal of a report of waste discharge) demonstrates that the Legislature intended for the respective provisions to operate differently (*Briggs v. Eden Council for Hope & Opportunity* (1999) 19 Cal.4th 1106, 1117 ["Where different words or phrases are used in the same connection in different parts of a statute, it is presumed the Legislature intended a different meaning"].) The amendment therefore shows that the Legislature intended to continue the requirement previously in effect that required those proposing a new discharge to first submit a report without having been requested to do so by the regional board.

The foregoing demonstrates that an important purpose of the Dickey Act was to proactively prevent water quality problems from occurring.

With that purpose in mind, it is apparent that the Legislature intended the requirement for new dischargers to submit reports of waste discharge in advance to be mandatory. The Legislature chose waste discharge requirements as the mechanism to prevent pollution and nuisance from occurring. For the requirements to be most effective as a preventative measure, they would need to be in place prior to commencement of the discharge. But before such requirements can be drafted, information about the characteristics of the waste to be discharged (which is contained in a report of waste discharge) must be obtained. Thus, for discharge requirements to be in place to guide discharge activities, a report of waste discharge must be submitted in advance. Such advance submittal would allow the drafting of prophylactic requirements and thereby "best accomplish" the statutory aim of the Dickey Act to protect water quality. (*See CCPOA, supra,* 10 Cal.4th at 1143.) The Legislature must therefore have intended the requirement to be mandatory.

This construction is bolstered by another source, Ron Robie, acknowledged by Goodrich as an authority on the Dickey Act. "Under the Dickey Act, discharges were not prohibited without requirements, *so long as* a report of waste discharge was filed with the regional board." (Ronald B. Robie, *Water Pollution: An Affirmative Response by the California Legislature* (1970) 1 Pac. L J. 1, 17, fn. 76 [italics added]; see also *People v. City of Los Angeles* (1958) 160 Cal.App.2d 494, 501-502 [stating requirement to unconditionally submit the report of waste discharge in advance to permit the drafting of requirements].)

a. **The dischargers' operations required the advance submittal of reports of waste discharge which they failed to provide.**

The dischargers were clearly subject to the Dickey Act's requirements at the time of their operations. The Dickey Act applied to discharges of "sewage and industrial waste." (Former Wat. Code, § 13054.) Industrial waste included "any and all liquid or solid waste not sewage, from any producing, manufacturing or processing operation of whatever nature." (Former Wat. Code, § 13005.) As described in more detail in the Advocacy Team's Memorandum of Points and Authorities, submitted on March 27, 2007 and elsewhere herein, WCLC and Goodrich discharged waste materials used in their drying, manufacturing, research and testing operations to the bare ground and to on-site disposal areas. Both WCLC and Goodrich also discharged sewage to onsite subsurface disposal systems. Accordingly, the dischargers were required by the Dickey Act to submit a report of waste discharge prior to commencing their activities. No such reports were ever received by the Regional Board.

b. **The Dischargers failed to submit a report of waste discharge to announce materially changed operations.**

Goodrich additionally failed to comply with the amendments to the Dickey Act enacted in 1959. Those amendments added the following provision:

> "Any person discharging sewage or industrial waste within any region, other than into a community sewer system, shall file with the regional board of that region a report of *any material change or proposed change in the character, location or volume of the discharge.*"

(Former Wat. Code, § 13054.1 [italics added].)

The submittal of such a report of waste discharge to announce a material change was a mandatory requirement of the Dickey Act for the same reasons presented above for the initial report required by former Water Code Section 13054. (See also 48 Ops. Cal. Atty. Gen. 85, 88 (1966) [stating discharger unqualifiedly required to submit report of material change in discharge].)

Inasmuch as the Goodrich operation changed in its character and activities over the course of activities at the 160-acre site, it is likely that Goodrich was required to report material changes in those operations. There is no record that Goodrich did so.

By failing to submit an initial report of waste discharge and subsequent reports to document material changes in their proposed discharges, Goodrich therefore failed to adhere to mandatory requirements of the Dickey Act and accordingly violated a law "in existence at the time."[4] Section 13304(j) therefore authorizes

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[4] Goodrich conceivably would assert that no violation occurred because the Dickey Act's requirement to submit a report of waste discharge in advance was not enforceable. It is true that the only enforcement remedy available for non-submittal did not arrive until the 1959 amendments and did not apply unless the report of waste discharge had been "requested" by the regional board. (Former Wat. Code, §§ 13054.4 & 13054.5.) Such a view is not supported by any provision of the Water Code. The Water Code does not define "violation" as only those acts punishable by law. The plain meaning of the word "violation" is an "[i]nfringement or breach, flagrant disregard or non-observance, of some principle or standard of conduct or procedure, as an oath, promise, law, etc." (Oxford English Dictionary (2nd ed. 1989) (viewed at http://dictionary.oed.com/cgi/entry/50277873?single=1&query_type=word&queryword=violation&first=1&max_to_show=10.) The definition does not specify that the offending act be punishable. Accordingly, the RPs commited a violation by failing to adhere to mandatory requirements of the Dickey Act even though their conduct carried no consequences under the Act.

the State Water Board to require the dischargers to clean up and abate the effects of their waste discharges.

Goodrich contends that it could not be subject to the Dickey Act because the Regional Board did not request that Goodrich file a report of waste discharge. In Goodrich's view, the Dickey Act required the Regional Board to first "determine that a 'discharge' existed and then *would have had to request that the discharger file a report of waste discharge.* Cal. Water Code § 13054 (Deerings 1961); Ex. 20398." (Goodrich's Brief, p. 197 [fn omitted].) Goodrich's understanding of the Dickey Act is badly misinformed.

The first clue to the flawed interpretation is that Goodrich cited to the Dickey Act as amended in 1961 when Goodrich by its own admission commenced operations four years earlier in 1957. Goodrich cited to the wrong statute. The 1949 version of the Dickey Act, which controlled in 1957, contained no provision calling for the Regional Board to request a report of waste discharge. Instead, the law in effect simply stated that a person proposing to discharge "shall," without being asked, file a report. (Former Wat. Code, § 13054.)

Goodrich maintains it did not "discharge" within the meaning of the Dickey Act. In Goodrich's view, waste would have needed to directly enter waters of the state before being termed a "discharge." Goodrich is mistaken.

Initially, the main source of supporting authority cited by Goodrich, an Attorney General opinion (27 Ops. Cal. Atty. Gen. 183 (1956)), does not stand for the meaning attributed it by Goodrich. The issue of whether a discharge could not occur before waste entered waters of the state was not presented. The Attorney General was instead tasked with analyzing whether a present property owner could be liable for a past property owner's activities that had resulted in the continuing discharge of, among other materials, earth from tractor trails or other areas denuded of protective vegetation by logging operations. The Attorney General concluded that so long as the materials continued to be transported through run off, the present property owner could be held responsible for allowing them to continue even though originally created by the former property owner. (See also 26 Ops. Cal. Atty. Gen. 88 [concluding subsequent property owner is a discharger for ongoing "release of harmful material" even if mining operations conducted by prior property owner and ceased prior to taking ownership].) Thus, the focus of the opinion was on the issue of whether or not the discharge of material was currently happening, not on its relationship to waters of the state. The passage quoted from the opinion, when viewed in this context, cannot be understood to require that waste must enter waters of the state before it constitutes a "discharge."

Goodrich's construction is also at odds with the plain meaning of the statute. First of all, nothing on the face of the statute indicates the need for a connection to a water of the state. The Legislature knows how to create such requirements.

(See Wat. Code, § 13350 [imposing civil liability for discharges "into a water of the state"].) Had the Legislature intended Goodrich's meaning, it could have added the phrase "into a water of the state" after the word "discharge." It didn't.

The context of the statutory language also does not support Goodrich's interpretation. The passage in question reads: "Any person proposing to discharge sewage or industrial waste within any region, other than into a community sewer system, shall file with the regional board of that region a report of waste discharge." (Former Wat. Code § 13054.) Thus, the one exception where a report is not required is where the discharge is "into a community sewer system." Were the word "discharge" to contemplate entry into waters of the state, the need for this exception is unclear. The only reason for it would be if a community sewer system is a water of the state; otherwise the Legislature could have left it out altogether. Surely Goodrich is not taking the position that a community sewer system is a water of the state, but even if it were that view is not correct. Because a community sewer system is excluded from the meaning of a water of the state, the exception for discharges into one would have been surplusage that is to be avoided in statutory construction.

Sources on the meaning of the word "discharge" also do not support Goodrich's view. The word "discharge" means (as a verb) "to emit; to give outlet to; to pour forth" and (as a noun) either "a flowing or issuing out" or "that which is emitted." (26 Ops. Cal. Atty. Gen. 88 (1955); see also *Lake Madrone Water District v.*

State Water Resources Control Board (1989) 209 Cal.App.3d 163, 171 [attributing same meaning to that term as used in section 13304].) There is no requirement inherent in the term "discharge" that it enter a water of the state.

Another clue to the error in Goodrich's argument is revealed by its referring to former Water Code Section 13054.3 to support its claim that a discharge must have directly entered waters of the state to fall within the Dickey Act. Water Code Section 13054.3, which was not added to the Dickey Act until 1959 (see Stats 1959, c. 1299, p. 3453, § 18), does not concern the matter of waste discharge requirements at all. Instead, it allows a regional board to determine that certain "direct discharges" should be prohibited altogether. (Former Wat. Code, § 13054.3.) The Attorney General's Office opined on the limited scope of the prohibition power. After quoting the statute, the opinion stated:

> "The reference to 'direct' discharges in section 13054.3 appears to contemplate waste discharges transmitted into State receiving waters without passing through any intervening material. This office has previously declared that, for purposes of this section, a 'direct' discharge was one which goes 'from the final control of the discharger immediately into either surface or underground waters without an intervening natural filtration or evaporation process.' Letter to Paul R. Bonderson, Executive Officer of the State Water Pollution Control Board, Aug. 14, 1961, I.L. No. 61-86, p. 1. Conversely an 'indirect' discharge is one in which there is a 'disposal of sewage on land with a possible subsequent movement by evaporation or percolation into surface or underground waters.' *Id.* at 3.
>
> It is not possible to describe hypothetically all 'direct' discharges as opposed to all 'indirect' discharges. These can be determined only on a *sui generis* basis. However, a discharge into underground areas or strata normally reaches such waters only by filtering through the intervening soil or rock, and thus such a discharge is an

> indirect one and beyond the prohibitory powers of regional boards under section 13054.3."

(48 Ops. Cal. Atty. Gen. 85, 86-87.)

This passage is important for a couple of reasons. First, it demonstrates that Goodrich cited the wrong statute for its proposition that discharges must "directly" enter waters of the state to come within the Dickey Act. The opinion concludes that this prerequisite applies only where a regional board seeks to prohibit a discharge altogether. Waste discharge requirements for "indirect" discharges are still within the power of the regional boards under the Dickey Act.

Second, the reasoning of the opinion reveals how fundamentally flawed Goodrich's posited definition of the term "discharge" is. In defining the meaning of "direct discharge" the opinion states that, in contrast, "an 'indirect discharge' is one in which there is a 'disposal of sewage on land with a *possible* subsequent movement by evaporation or percolation into surface or groundwaters." (*Id.,* at p. 87 [italics added].) For an indirect discharge to occur, therefore, it does not necessarily have to enter waters of the state at all. Goodrich's interpretation is in conflict with this view of the Attorney General.

c. **The dischargers violated the Dickey Act by creating a threatened pollution.**

Another violation was caused because the dischargers created a pollution as defined by the Dickey Act. The Act defined "pollution" as:

> "an impairment of the quality of the waters of the State by sewage or industrial waste to a degree which does not create an actual

> hazard to the public health but which does adversely and unreasonably affect such waters for domestic, industrial, agricultural, navigational, recreational or other beneficial use." (Former Wat. Code, § 13005.)

A key requirement, seized upon by Goodrich, is that the impairment of water must "unreasonably" affect it for beneficial use. The State Water Pollution Control Board promulgated a procedure for determining what is reasonable or unreasonable. (See 27 Ops. Cal. Atty. Gen. 217, 220.) This procedure was entitled the "Preliminary Statement of Objective and Policy and Report on Water-Quality Evaluation." (State Water Pollution Control Board Pub. No. 4 (1952).)

The policy explained "pollution" thusly:

> "It is to be expected that some beneficial uses of water will suffer to some extent from disposal of wastes. In order to insure that such detrimental effects are not 'unreasonable,' account must be taken of the fact that every beneficial use imposes two values to each of its water quality requirements: first, a value (threshold) at which the use is not damaged to any significant degree by pollution, and a second, a value (limiting) at which the benefical use is to all practicable purposes inhibited or destroyed."

(*Id.* at p. 7.)

Following that definition, the policy set forth a series of steps, both objective and subjective, to arrive at a solution for effectively addressing each water quality problem (i.e., discharge) with requirements. In Step 2, the flowchart directs the identification of treatment methods and costs to alternatively maintain "at least limiting values" for beneficial uses. In Step 3, those computations were to be translated into lists of uses to be held at the "threshold" level.

More importantly, the policy provided for a determination of the beneficial uses for which "values of quality characteristics exceeding the threshold but *not exceeding the limiting* are to be maintained." (*Id.* at p. 9.) Thus, the beneficial uses that would be allowed to degrade below the threshold level would need to be maintained above the limiting level, i.e., where the beneficial use would be "to all practicable purposes inhibited or destroyed."

Perchlorate has been detected in some affected water wells at levels higher than 4 ppb (the level at which several wells have been shut down) and at 6 ppb (the level at which the Proposed Amended CAO requires replacement water pursuant to the Public Health Goal established by the Office of Environmental Health Hazard Assessment.) By rendering significant areas of groundwater unfit to drink, the dischargers' activities inhibited or destroyed them for municipal beneficial uses and therefore created pollution.

The exact time that the pollutants discharged by the dischargers reached the groundwater is difficult to pinpoint and it may therefore have occurred after they ceased operations. Accordingly, the dischargers may not have created actual pollution. The Dickey Act was aimed at preventing "threatened" pollution as well, however. (Former Wat. Code, §§ 13053, 13062, 13063.) Because the dischargers placed materials where they

ultimately would travel to groundwater and render it undrinkable, they originally committed at least a "threatened" pollution in violation of the Dickey Act.

2. Goodrich and Emhart caused a public nuisance.

The dischargers' actions were unlawful when taken because they amounted to a public nuisance. "Anything which is injurious to health . . . or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, . . . is a nuisance." (Civ. Code, § 3479.)

Case law demonstrates that pollution of groundwater constitutes a nuisance per se. (*People v. Truckee Lumber* (1897) 116 Cal. 397; *Carter v. Chotiner* (1930) 210 Cal. 288, 291; *Selma Pressure Treating Co. v. Osmose Wood Preserving Co.* (1990) 221 Cal.App.3d 1601, 1619; *Jordan v. City of Santa Barbara* (1996) 46 Cal.App.4th 1245; *Newhall Land & Farming Co. v. Superior Court* (1993) 19 Cal.App.4th 334.)

Goodrich counters that 400 feet of substrate separated the activities at its facility from the underlying groundwater. When, if ever, perchlorate discharged during these activities traveled that distance, is unknowable in its opinion and may therefore have occurred well after its operations ceased. Unless the perchlorate

reached groundwater during Goodrich's operations, the argument goes, the nuisance cannot be blamed on Goodrich.

Goodrich's argument rests on a faulty premise, namely, that a public nuisance could not have existed before its pollutants actually contaminated the groundwater. Taken to its logical extent, the company's interpretation is that nothing could legally stop it from dumping huge piles of any toxic waste on the ground so long as it left town before the material could be carried to groundwater.

Fortunately, the law is more proactive. The affected people need not either "die or move away" before a court can stop activity amounting to a public nuisance. (*People v. Guntert* (1981) 126 Cal.App.3d Supp. 1.)

There need be no actual injury before a court can enjoin a nuisance. (*Beck Development Company, Inc. v. Southern Pacific Transportation Co.* (1996) 44 Cal.App.4th 1160, 1213.) A simple fear of a nuisance is insufficient, but a "reasonable probability or even reasonable certainty of injury" will suffice. (*Ibid.*) Upon such a showing, the court can enjoin the offending activity to prophylactically prevent injury from occurring.

Here there was not only a possibility that the pollutants could reach groundwater, they actually did. The growing perchlorate and TCE plume beneath Goodrich's former property demonstrates that their pollutants "could" reach groundwater at

the time they were deposited on the ground. Accordingly, the actions that discharged perchlorate and TCE gave rise to a nuisance at the time they occurred even though no injury immediately resulted. Goodrich's activities were therefore unlawful at the time they occurred.

Goodrich's experts assert that the perchlorate from its activities could never have reached groundwater based on the results of computer modeling. Such hypothetical scenarios might be helpful were it not for the fact that sampling of the actual water affected shows the presence of perchlorate.

Goodrich avers that nuisance cannot stem from actions in the absence of negligence. While this is a correct view of the law in California at the time, the absence of negligence is Goodrich's burden. The placement of the perchlorate where it could be discharged to groundwater is presumptively negligent pursuant to the doctrine of res ipsa loquitur. (*Carson Harbor Village* (1997) 990 FS 1188, 1197-98.)

While the proportion of the perchlorate attributable to each of the RPs is not known, this fact does not affect their responsibility for the resulting nuisance. Where several tort feasors act concurrently or successively to cause an indivisible harm, they are jointly and severally liable. McCreery v. Eli Lilly – 87 CA3 377.

Finally, Goodrich contends that because perchlorate was not known to be a water quality problem until 1997, a nuisance prior to that time could not exist. This view of the law is nonsensical. The definition of nuisance includes anything "injurious to health." (Civil Code, § 3479.) Whether society "knows" about the health threat or not is immaterial. The fact that the offending conduct is injurious to health is enough.

IV. The fact that there are other PRPs does not negate the liability of the named dischargers.

Goodrich and PSI have discussed at length in their April 17, 2007 submissions to the Hearing Officer the potential liability of other parties for the perchlorate and TCE discharges at the 160-acre site. The Advocacy Team (as the Regional Board staff) has been actively investigating sources of discharges at the site since 2002.[5] The Team is well aware of the possibility that others bear some liability for those discharges. The Advocacy Team takes seriously its duty to obtain an expedient investigation and cleanup of the discharges that are the subject of this proceeding. As described below, the Advocacy Team has concluded (with the exception of Ken Thompson, Inc.) that pursuit of those other entities using its limited resources at this time would not lead to an expeditious commencement of remediation. The Regional Board is authorized to name all appropriate parties in a CAO action. This has been made abundantly clear in

[5] At the commencement of this proceeding the "Advocacy Team" was designated. Before being so designated, members of the advocacy team were referred to as "Regional Board Staff." The term "Advocacy Team" is used in this document to refer to the designated staff advocating issuance of the CAO. "Regional Board Staff" is used at times to refer both to the same staff members prior to their designation and to include a broader group of the Santa Ana Regional Water Board's staff.

several State Water Board decisions. *Alcoa*, Order No. WQ 93-9; *San Diego*, Order No. WQ 96-2. Though other parties may later be named in this matter at an appropriate time and in an appropriate proceeding, the Advocacy Team has exercised its discretion in an effort to promote an expeditious remediation. The fact that there may be other liable parties is not a defense to the CAO. *Sanmina* Order No. WQ 93-14, at page 4. The named parties remain fully liable and are required to comply with the CAO requirements regardless of whether others may be named to the CAO at a later date. The Advocacy Team urges the State Water Board not to allow the dischargers to impede expeditious investigation and remediation in this case. Instead, to the extent it is determined that naming additional parties should be considered, the State Water Board should proceed to issue the proposed CAO to permit expeditious investigation and remediation. A separate or later proceeding, possibly before the Regional Water Board, can be established to consider additional responsible parties.

In their briefs, the dischargers point to a variety of information that suggests that there are other parties that should be named to the Proposed Amended CAO. Some of this information has merit; some does not. Regardless, none of this information changes the responsibility of the named dischargers for their own actions. These arguments are merely an attempt by the named dischargers to divert attention from their own liability. The arguments related to other parties are addressed below.

a. DOD/RASP

The Advocacy Team issued a Section 13267 Order to the Department of Defense (DOD) on October 22, 2003, related to suspected discharges of perchlorate during the operation of the Rialto Ammunition Storage Point (RASP). It was not until many months later that the DOD finally provided a response to the request. The response was essentially a limited disavowal of perchlorate discharge. Efforts to obtain the federal government's cooperation in an investigation and remediation action are subject to many legal and other hurdles. Rather than spend its efforts attempting to overcome those obstacles, the Advocacy Team chose to focus on the fewer parties for which the evidence more clearly pointed to liability. However, the Advocacy Team takes the position that the DOD (which is named as a defendant in the City of Railto's federal lawsuit) is a likely contributor of perchlorate and should be pursued in the proper forum at the proper time.[6]

b. Pyrotronics/Apollo

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[6] Goodrich also makes speculative arguments about the likelihood of TCE discharges at RASP. These arguments are not based on direct evidence of TCE use or discharge at RASP; rather, they are based on maintenance activities conducted at RASP and suggestions that TCE use and discharge have been commonly reported at sites where these activities occurred. These arguments do not form an adequate basis for naming DOD to the Proposed Amended CAO. We note that the same type of arguments about TCE use and the potential for discharges to pollute groundwater can be made against Goodrich based on the nature of its operations at the Site. Based on evidence currently available, it is appropriate for the Regional Water Board to address suspected discharges of perchlorate and TCE at RASP separately under Water Code Sections 13267 and 13308. If additional investigation of RASP in the future identifies evidence supporting a 13304 order against DOD, DOD could be added as a party to the Proposed Amended CAO or could be the subject of a separate cleanup and abatement order considered by the Regional Water Board.

The dischargers have presented valuable information about Pyrotronics' involvement at the 160-acre site and its relationship to Apollo, another pyrotechnics manufacturer at the site. The evidence of perchlorate discharges by Pyrotronics is not disputed by the parties in this proceeding. Noteworthy is the fact that the dischargers do not present any evidence regarding TCE use or discharge by Pyrotronics. The Advocacy Team did not name Pyrotronics to the CAO because the firm is defunct, and there are no known legally liable successors. Pyrotronics filed for Chapter 11 bankruptcy in 1986, and all of its assets were liquidated in approximately 1988. However, the Advocacy Team supports efforts to name all legally liable parties in appropriate orders.

c. Ken Thompson, Inc.

Ken Thompson, Inc. currently owns a portion of the 160-acre site and purchased the property from Pyrotronics in 1987. Significant source areas, including the McLaughlin Pit and the Goodrich burn pits, are located on the Ken Thompson, Inc. property, and groundwater monitoring wells show high levels of perchlorate and TCE in groundwater underlying the property. These facts alone would form a basis for naming Ken Thompson, Inc. to a cleanup and abatement order, consistent with prior State Board orders. Goodrich asserts that, since Ken Thompson, Inc. agreed contractually, in its purchase of the property from Pyrotronics, to assume responsibility for the McLaughlin Pit, it should be held fully

responsible for discharges from the Pit. This contractual agreement with Pyrotronics is irrelevant to Ken Thompson, Inc.'s liability pursuant to Water Code Section 13304. See *Alcoa*, Order No. WQ 93-9. Nevertheless, Ken Thompson, Inc. could be liable under Section 13304, based solely on its ownership of the property. While the Advocacy Team has not recommended that Ken Thompson, Inc. be named to the Proposed Amended CAO, Ken Thompson, Inc. could be added to the order in the future or could be the subject of a separate cleanup and abatement order considered by the Regional Water Board.

d. RDF Holding Company

RDF Holding Company purchased Pyrotronics' fireworks assets out of bankruptcy and sold these assets to Pyrodyne American Corporation approximately four months later. Although some fireworks-related activities (storage of leftover chemicals, some burning of wastes) occurred during RDF's tenure, there is not sufficient evidence to support naming RDF to the Proposed Amended CAO.

e. **American Promotional Events, Inc. – West (APE)**

APE is an importer and distributor of consumer fireworks. It is a successor of Pyrodyne American Corporation and has operated on the 160-acre site from 1989 to the present. It has not manufactured fireworks at the site, but its operations have included testing and burning of

fireworks containing perchlorate. The Regional Water Board issued an investigation order pursuant to Water Code Section 13267 to APE in 2002. APE conducted a soils investigation in response to that order, which identified only very low levels of perchlorate in only one location. Additional investigation in response to that order may be appropriate; however, there is not sufficient evidence at this time to support naming APE to the Proposed Amended CAO. Goodrich notes that discovery is ongoing related to whether APE may be a successor to the liabilities of Pyrotronics. If additional evidence is generated that indicates that either APE is a successor to Pyrotronics' liabilities or APE's activities create a basis for an order under Section 13304, then APE could be added to the Proposed Amended CAO in the future or could be the subject of a separate cleanup and abatement order considered by the Regional Water Board.

f. City of Rialto

Goodrich argues that the City is a responsible party and should be named in the CAO because it allegedly failed "to enforce the McLaughlin Pit-closure mitigation measure mandated by CEQA." However, there is no evidence that the City of Rialto discharged perchlorate or TCE or any other waste or contaminant at the 160-acre property. There is no evidence that it owned the subject land at any time. There are no facts at all showing a recognized theory for naming the City as a discharger under Section 13304.

g. Broco/Denova

Broco, Inc. and Denova Environmental, Inc. operated a facility near the southeast (downgradient) corner of the 160-acre site from approximately 1981 until 2002. Both companies are now defunct. In 2003, during installation of a sewer line at the property, a "dud" firework was discovered at this property. The fireworks debris and adjacent soil were excavated and removed, and soil sampling showed elevated levels of perchlorate in shallow soils. The Department of Toxic Substances Control (DTSC) has been the lead agency for this investigation and cleanup, and this site is located well downgradient of the highest perchlorate concentrations in groundwater underlying the 160-acre site. Since DTSC is overseeing additional work by the property owner of this site, it is not appropriate to name that party to a CAO at this time.

V. Closure of The McLaughlin Pit does not relieve the dischargers of liability for their perchlorate discharges.

A. The McLaughlin Pit was not, in fact, subject to Subchapter 15.

The dischargers argue that the Regional Board staff (and later they argue the State of California) is somehow responsible in part for any discharge of perchlorate from the McLaughlin Pit. This is because, they claim, the Regional Board staff failed to properly apply mandatory requirements to the closure of the Pit. They claim that Subchapter 15 regulations that were in effect at the time of the closure of the Pit required a certain

protocol of groundwater and soil testing that was not followed prior to approval of Pit closure. However, as explained elsewhere herein, it is not correct to conclude that Subchapter 15 regulations applied to the Pit. The Regional Board staff properly applied all applicable regulations in effect at the time and Subchapter 15 was not applicable to the Pit. As explained in greater detail elsewhere herein, during discovery in this proceeding, Advocacy Team members were shown in a deposition a letter prepared by Regional Board staff prior to the McLaughlin Pit closure. Surprised by the letter, the deposed Team members were unable at the time to explain the letter. That letter ***erroneously*** stated that the Pit was subject to Subchapter 15. That error is the basis of the dischargers' argument that the McLaughlin Pit was improperly closed by the Regional Board staff.

B. Neither the Regional Board staff nor the State of California are liable in any way for discharges from the McLaughlin Pit.

The dischargers argue that, having failed to properly close the Pit, the Regional Board is responsible for the discharges. As noted above, the factual and legal premise upon which this argument is based—that Subchapter 15 applied to the Pit and that its requirements were not followed—is not supported. That being the case, the issue is dead. However, even if Subchapter 15 were applicable to the McLaughlin Pit, which it is not, the outcome of such a circumstance is not that the Regional Board and/or the State of California are liable. As the Regional Board staff did not own, lease, operate or discharge wastes into the McLaughlin pit, no theory under Water Code Section 13304 would lead to

liability of the Regional Board or the State. Moreover, the law of California is such that, as long as the staff of a government agency are performing their duties in good faith and have not engaged in some kind of "gross negligence," no liability under other theories of liability will be found against them. For example, see Government Code Section 818.2, 8820.8, 821 and 821.4, which provide qualified immunity to public government agencies and their employees engaged in the course of their employment.

VI. Joint and Several Liability is appropriate.

The Emhart Entities assert that any impacts from WCLC's operations are "distinct and reasonably subject to division." However, they have failed to provide evidentiary support for that assertion. Goodrich makes a similar claim. The Advocacy Team has not been provided any evidence to conclude that the discharges and the impacts caused by those discharges are divisible. For that reason, the Advocacy Team continues to propose joint and several liability among the named parties.

The State Board has long ago established the proposition that it is appropriate to name multiple parties in a cleanup and abatement order as joint and several respondents under Section 13304. The Advocacy Team and the Hearing Officer do not need to apportion responsibility among the dischargers. That is an

undertaking that the parties themselves may assume either in settlement discussion or in litigation.

The State Water Board has stated:

> In a series of prior Orders, we have established certain principles regarding liability for groundwater cleanups. Cleanup liability is broad and may extend, depending on the facts of the case to old landowners, present landowners, old tenants, and present tenants. <u>In cases involving several potentially responsible parties, it is appropriate to name in cleanup orders all parties for which there is reasonable evidence of responsibility for each party named.</u> In reviewing an action of a Regional Board, we look at the record to determine whether, in light of the record as a whole, there is a reasonable and credible basis to name a party." *U.S. Cellulose and Louis J. and Shirley D. Smith*, Order No. WQ 92-04. (at p. 2)(emphasis supplied)

In another case, the State Water Board was reviewing on petition a cleanup order issued to Zoecon by the San Francisco Bay Water Board. (*Zoecon Corporation*, Order No. WQ 86-2) The State Water Board, referring to the waste discharge requirements issued under Water Code Section 13260 as a "cleanup order," had this to say on the subject of multiple party liability:

> We hasten to point out that neither the waste discharge requirements nor this order speak to the issue of apportioning responsibility between Zoecon and Rhone-Poulenc for the clean up of the site. There are other forums that provide a more appropriate setting for the resolution of that matter." (at p. 4).

The State Water Board has consistently supported the concept of joint and several liability in cleanup actions. In part, this is because it is less wasteful of time and resources for parties who all have some level of liability, to cooperate with one and other to achieve economic savings and

efficiency. In *Union Oil Company of California*, Order No. WQ No. 90-2, the State Water Board stated that the Regional Board is authorized:

> "to issue either one order, or several orders with coordinated tasks and time schedules, to all persons it finds are legally responsible, requiring any further investigation and cleanup which is necessary." (at p.3) It went on to say that "While we consider all dischargers *jointly and severally liable* for discharges of waste, it is obviously not necessary for there to be duplication of effort in investigation and remediation." (Id, at p. 4) (emphasis supplied)

On the issue of apportionment, the State Water Board has also stated that it is best left to the parties to decide who will pay what for the investigation and remediation. In *Santa Clara Transportation Agency* Order No. WQ 88-2, the State Water Board noted:

> It is not the responsibility of the Regional Board to track down all possible contributors to the ground water pollution and apportion their share of the responsibility for treating a point source discharge. The courts provide a more appropriate forum for the petitioner to seek indemnity. State Board Order No. 86-2) (*Id*, at p. 2)

H&S Code Section 25363 is argued by PSI to provide support for the argument that the State Water Board should apportion responsibility in this case. However, even if applicable, that provision makes clear that the burden is on the respondents to show what their respective liability should be. The dischargers in this case have failed to submit any evidence of their claimed separate liability. The provision also supports the conclusion that the courts should handle the issue of apportionment, rather than the administrative agency.

VII. The State Water Board is not "estopped" from imposing joint and several liability, as Goodrich argues.

Goodrich claims that because the Regional Board failed to properly apply the law in effect at the time to closure of the McLaughlin Pit, the Regional Board is responsible for the discharges of perchlorate. Since the State Water Board and the Regional Water Board are both state agencies, and disregarding all legal basis of separation among the state agencies, Goodrich asserts that the State Board cannot name others with whom it shares responsibility as joint and several respondents.

The Advocacy Team has responded to the claim about the McLaughlin Pit elsewhere herein. Even if there were some plausible claim against the Regional Water Board, however, Goodrich's logic still does not follow. There is no authority that requires the outcome that Goodrich espouses.

VIII. Res Judicata does not bar the action against the Emhart Parties or Goodrich.

The Emhart Entities and Goodrich argue that the State Water Board is precluded from entering an order against them because of a prior CAO that was issued against Goodrich and Kwikset in 2002. However, key elements for application of res judicata are clearly absent and, therefore, it cannot be applied to this proceeding. The argument goes that this matter has essentially already been adjudicated and resolved between the same parties. Thus, according to Emhart and Goodrich, res judicata holds that the CAO cannot be tried again. In their

arguments, however, Emhart and Goodrich have mischaracterized what happened in 2002. It is this mischaracterization of events upon which they rely to build their faulty argument.

As a requisite to application of res judicata or collateral estoppel, the dischargers must show that there was a final judgment on the merits in the earlier proceeding. This they cannot do because there was no final judgment on the merits of the 2002 CAO. In 2002, the Executive Officer issued a CAO against Kwikset and Goodrich. A hearing was held before the Regional Board. At the conclusion of the hearing on September 13, 2002, the Regional Board deliberated in closed session on the evidence and the CAO. The Board announced in open session that they had decided (a) that the factual information about discharge and successorship was "inconclusive" and (b) that they believed that, instead of a CAO issued to two parties, it would be more expeditious to name the larger group of entities that have owned land or operated businesses on the 160-acre site in Water Code Section 13267 Orders. That way, the Regional Board hoped, a larger group of likely responsible parties could work together cooperatively to investigate and remediate the perchlorate discharges. However, because of a defect in the Regional Board's agenda (failure to note that a closed session would be held), the Regional Board had to return in October 2002 to repeat its deliberation in public. In that deliberation, the Regional Board affirmed its factual conclusions regarding "inconclusive" evidence

and again ordered staff to rescind the CAO and, instead, seek the cooperation of the broader group of potentially responsible parties.[7]

Beginning on September 24, 2002, the Executive Officer did exactly what the Regional Board ordered: he issued some 23 Orders under Section 13267 to the various known potentially responsible parties. In the intervening months and years, as a result of the 13267 Orders, information was submitted that led to issuance of CAOs to some of the parties. For example, CAOs were issued to the County of San Bernardino and to Whittaker Corp. The information received as a result of the 13267 Orders also led to the conclusion that some of the parties were defunct. Others were deemed to be essentially blameless for the perchlorate contamination. Others (such as the DOD) remained uncooperative and are pending further action.

As to Goodrich, the Emhart Entities and PSI, however, the evidence of discharge and culpability only continued to pile up. Having gone through the modified strategy ordered by the Regional Board in September 2002 to ferret out other potentially responsible parties during the next three years, the Advocacy Team came to the conclusion that Goodrich and Kwikset remain liable. Information gathered during the three-year period additionally suggests that Kwikset has liable corporate companions and that PSI should be added as a responsible party.

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[7] In May 2003, the Regional Board adopted Resolution No. R8-2003-0070 in an effort to clarify its intent and its conclusions regarding the September CAO against Kwikset and Goodrich.

The critical error in Kwikset's and Goodrich's res judicata argument is that they fail to prove that the Regional Board in 2002 made a determination on the merits of the CAO. They cannot do so because that is simply not what the Regional Board did in 2002 or in 2003. Instead, as is evident from a reading of the transcript for any of the three proceedings, the Regional Board clearly articulated that it had found the evidence 'inconclusive." If it had merely found that the Regional Board staff had not presented convincing evidence (which is what Goodrich and Kwikset now argue), they could have said that. But they did not. Instead, the Regional Board directed the Staff to abandon the CAO against Goodrich and Kwikset and to pursue the Section 13267 information-gathering route instead. In this manner, the Regional Board retained open jurisdiction over the matter and was authorized to consider new evidence as it became available.

Emhart grasps at straws when it quotes the unpublished appellate court decision passage that, "Until Respondent Board takes further action against Kwikset, it is impossible to ascertain whether res judicata applies, making any discussion of that issue is entirely premature." Instead of providing hope to Emhart, the Court's statement is intended to convey just one of its reasons for rejecting Emhart's appeal from the Superior Court's (and the State Water Board's) decision to refuse Kwikset's plea for a written decision on the merits in the 2002 CAO matter. Moreover, the Emhart Entities have failed to fully set forth how they are "in privity" with Kwikset.

IX. The Emhart Parties are the legal successors to WCLC.

The Emhart Parties argue against the successorship theories set forth in the Proposed Amended CAO and in the Advocacy Team's Memorandum of Points and Authorities. The Advocacy Team notes that in their opening brief, the Emhart Entities concede that WCLC merged into KLI, that AHC *is* Emhart and that BDI will honor any final liability that may be imposed against Emhart as a result of this proceeding (Emhart Opening Brief, page 40). The remaining issue regarding successorship, then, is whether liability for WCLC's actions was transferred from KLI to AHC upon acquisition. If the answer is yes, the result of the Emhart Entities' concessions is that Emhart Industries, Inc., Kwikset Corporation, and BDI are liable for the discharges.

Despite the Emhart Entities' arguments, the Advocacy Team continues to assert that the facts of this matter and the applicable law support imposition of liability for the WCLC discharges against the Emhart Entities. Liability of AHC (and hence, the other Emhart Entities) is established in the nature of and the facts surrounding AHC's acquisition of KLI in 1957. The general rule is against liability in the acquisition of one corporation by another. However, as noted in the Advocacy Team's Memorandum and in the City of Rialto's Opening Brief, the courts have created exceptions for non-liability in order to avoid an injustice. The State Water Board is urged to avoid such an injustice by applying the well-established exceptions in this case and find that the acquisition of KLI by AHC

amounted to: (1) an express assumption; (2) an implied assumption; (3) a merger; (4) de facto merger or mere continuation; or any combination of these.

EXPRESS ASSUMPTION

In their Opening Brief, the Emhart Entities concede that AHC expressly assumed known and unknown liabilities *that were in existence* at the time of acquisition. However, WCLC's (and consequently KLI's) liability for any violations of California law resulting in nuisance or violations of the Dickey Act were such liabilities at the time of the acquisition. Those existing liabilities—even if they were unknown at the time—were expressly assumed by AHC. The instant CAO action is intended to apply to each of the dischargers—including the Emhart Entities—whose conduct and actions in past years led to the discharge of pollutants that entered the soil and the State's water or which continue to threaten the State's water today.

MERGER

Under a theory of merger, the surviving corporation assumes and is responsible for all liabilities of the subsumed corporation. The Emhart Entities assert that the acquisition of KLI by AHC in 1957 was not a merger. Apparently unable to produce the only document that would be expected to accurately state the intended consequences of the transaction, the so called "KLI/AHC Liability Assumption Contract," they make certain *assumptions* about those intended consequences. They base their assumption that the acquisition was not a

merger on their own interpretation of other documents, including the June 5, 1958 AHC Board of Directors Resolution and the KLI Dissolution Certificate. However, the Emhart Entities are not so easily able to construe the various other explicit documents that were also created at or near the time of the transaction and which very plainly and distinctly characterize the transaction as a *merger*. There simply is no room for the Emhart Entities today to re-write documents that were written at the time of the transaction to suit their purpose of avoiding liability. Those documents include, among others, (1) a May 16, 1957 letter from Robert Hutchison, Corporate Secretary, to a Mr. Prosser with the firm of Merrill Lynch, Pierce, Fenner & Beane which states, "Thank you for your letter of May 10, 1957 regarding the mailing of data concerning the proposed *merger* with the American Hardware Corporation." (Rialto, CS-54); (2) a May 18, 1960 "KLI ink" newsletter article entitled "Kwikset Marks 15th Year as a Lockset Producer," which says that, "On July 1, 1957 Kwikset Locks Inc. *merged* with the American Hardware Corporation..."(Rialto CS-52); and (3) the Kwikset Employee Handbook which says, "In 1957, Kwikset Locks, Inc. *merged* with the American Hardware Corporation...at the time of the *merger*..." (Rialto CS-54)

DE FACTO MERGER

The Emhart Entities argue that the precedential decisions that create this exception to non-liability should not be applied to the instant case. They base this argument on an assertion that KLI closed down the WCLC operation before the AHC acquisition of KLI and that AHC did not benefit from the WCLC

operation.[8] They concede, however, that AHC continued the Kwikset lockset manufacturing operation and fully benefited from that continuation. The Emhart Entities cite *Louisiana-Pacific Corporation v. Asarco*, Inc. 909 F.2d 1260 in support. There, the federal court appeared to refuse to find successorship liability in part because the purchaser company did not continue the seller company's slag business. It is important to note, however, that the Louisiana-Pacific case was a CERCLA case, interpreting federal law, not the California Water Code. The Emhart Entities do not cite any California court cases that have adopted the Asarco analysis. Thus, the test for purposes of this case in deciding whether or not the acquisition of KLI by AHC is a de facto merger remains a determination whether or not AHC continued the overall KLI operations. AHC does not deny that it continued the lockset business, retaining the business, management, personnel, physical location, assets and general business. Under the applicable precedent, the transaction was a de facto merger. In deciding this case, the State Water Board should not give undue deference to federal court decisions that interpret federal law. Instead, the State Water Board should consider the concepts developed by the State Courts interpreting State laws. For example, deference should be given to the concept that it is important to consider the impact upon the victims of a corporate transaction. If the nature of that transaction would prevent victims of the earlier corporation's activities from being able to obtain redress for their damages, the

[8] Emhart claims, without any evidence to that effect, that "AHC never took the benefit of WCLC's munitions business." At the least, it can be assumed that AHC gained benefits from KLI's and WCLC's experience with (a) manufacturing munitions; (b) ability to gain government contracts; (c) customer lists; and other business advantages.

courts may be willing to extend successorship liability to avoid that injustice. *Malone v. Red Top Cab Company of Los Angeles* 16 Cal.App.2d 268, at 273; *Sandra Phillips v. Cooper Laboratories, Inc.* 215 Cal.App.3d 1648, at 1654.

X. The Advocacy Team need not show "negligent or intentional" conduct.

Without authority or other basis, Goodrich argues that only a prior version of Water Code Section 13304 requiring a showing of negligent or intentional conduct, if any, can apply to its discharges. However, contrary to Goodrich's arguments, the modifications to Section 13304, removing the requirement to show negligent or intentional conduct, if anything, make clear the Legislature's intent that discharges subject to Section 13304 are subject to strict liability. The Advocacy Team has demonstrated elsewhere herein why it is that Goodrich's discharges during the 1950s and 1960s are subject to Section 13304. Since the condition created continues to exist today, the current version of Section 13304 is applicable, and no showing of negligent or intentional conduct is necessary.

XI. Section 13267 is properly applied against Goodrich.

Goodrich asserts that Section 13267 prerequisites have not been met, and that it cannot be applied retroactively. Goodrich's arguments are baseless. The plain language of the statute on its face makes clear that the statute applies to Goodrich. Section 13267 provides that, "A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, <u>or in connection with any action relating to any plan or requirement authorized by this</u>

division, may investigate the quality of any waters of the state within its region." (emphasis supplied)

Goodrich argues that the Advocacy Team has failed to cite any water quality control plan or waste discharge requirements. It apparently came to this conclusion by failing to take note of the remainder of the provision which is underscored in the above quote. That is, 13267 authorizes the requirement for submission of technical information "in connection with any action relating to any plan or requirement authorized by this division." A cleanup and abatement order under Section 13304 is such a requirement under this division. As such, Section 13267 applies. And, clearly, the CAO provides the other requisites under 13267, including the need for the requested information and reference to the evidence that supports the need.

XII. Section 13304 authorizes payment for replacement water.

Section 13304 provides, in pertinent part:

> 13304. (a) Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include

> wellhead treatment, to each affected public water supplier or private well owner.
>
> * * *
>
> (f) Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state, and local drinking water standards, and shall have comparable quality to that pumped by the public water system or private well owner prior to the discharge of waste.
>
> * * *
>
> (h) As part of any cleanup and abatement order that requires the provision of replacement water, a regional board or the state board shall request a water replacement plan from the discharger in cases where replacement water is to be provided for more than 30 days. The water replacement plan is subject to the approval of the regional board or the state board prior to its implementation.
>
> (i) A "water replacement plan" means a plan pursuant to which the discharger will provide replacement water in accordance with a cleanup and abatement order.

Barely two years ago, the State Water Board had occasion to dispense with Goodrich's arguments that there is no authority to require replacement water and that any such authority in Section 13304 cannot be retroactively applied. In *Olin Corporation and Standard Fusee,* Order WQ 2005-0007, the State Water Board allowed to stand an order of the Central Coast Regional Water Board requiring replacement water. There, the Regional Water Board entered an order requiring replacement water by Olin, which had manufactured flares between 1956 and 1988 and against Standard Fusee, which took over the business in 1988. The application of the replacement water was obviously implemented in a manner that reaches back to discharges by Olin that commenced in 1956. Goodrich's arguments against replacement water are unmeritorious.

XIII. The order for replacement water is not in conflict with the NCP nor is it preempted by CERCLA.

Goodrich argues that the Section 13304 provisions cited above authorizing replacement water are not properly adopted in that they are preempted by CERCLA. That argument is not properly brought to the State Water Board. The State Water Board and the Regional Water Boards are not authorized to declare a law that the Legislature has adopted is preempted by federal law. It is the province of the Courts to consider that argument. For that reason, the State Water Board should decline to rule on Goodrich's claim.

XIV. Moreover, contrary to Goodrich's arguments, applicable water standards have been exceeded, and it is appropriate to require replacement water.

The evidence supports the conclusion that the Public Health Goal of 6 ppb has been exceeded in public water supply wells. Goodrich argues that since no MCL has been established, no replacement water can be ordered. The argument goes against precedent, against public health, and against common sense. Regardless of whether the DHS and the US EPA have adopted an MCL, the State Water Board cannot sit idly by and allow accumulation of costs to the citizens of Rialto and an endangerment of the public health. In *Olin and Standard Fusee*, the State Water Board upheld a Regional Water Board order under the same circumstances. In this case, the State Water Board can do no less.

XV. There is no statute of limitations that applies to continuing violations of the law. The discharges in this case are continuing violations, and are therefore properly the subject of the CAO.

Goodrich has argued, among its several theories to avoid liability, that the CAO is beyond the statute of limitations. This argument is without merit. The State Board has previously dispensed with this claim. In *Harold and Joyce Logsdon*, Order No. WQ 84-6, the State Water Board reviewed a Cleanup and Abatement Order issued by the Central Valley Regional Water Board. The discharger had engaged in wood treating operations in the 1970s. The Regional Water Board issued its order against them in 1984. The discharger cited California Code of Civil Procedure Section 338 to argue that the three-year statute of limitations had lapsed. The State Water Board disagreed.

> In this case, we find that the on-going spread of chromium to waters of the state, as documented in the record, constitutes such a continuing wrong. Civil Code Section 3490 provides that 'no lapse of time can legalize a public nuisance, amounting to an actual obstruction of public right', together with various cases. [FN5] *Wade v. Campbell* 1962) 200 Cal.App.3d 54, 19 Cal.Rptr 173 deals with defendant operating a dairy found by the court to be a public nuisance. The court held the defense of laches and statute of limitations to be inapplicable noting: 'Every repetition of a continuing nuisance is a separate wrong for which the person injured may bring successive actions for damages and injunctive relief until the nuisance is abated, even though an action based on the original wrong may be barred by the statute of limitations.' (19 Cal.Rptr. 173, at 177)

XVI. Goodrich has failed to demonstrate that it was under "military orders" to discharge perchlorate to waters of the state.

Goodrich argues that it was required by various military manuals to dispose of unspent material by burning. However, those manuals do not address other Goodrich practices that led to discharges. Goodrich cannot use military orders

as an excuse for those other discharges as described elsewhere herein. Moreover, Goodrich was not required by those manuals to engage in any practices that would have the result of discharging harmful chemicals to the waters of the state. Doing so is entirely Goodrich's responsibility.

XVII. The Advocacy Team has the burden of proving the parties' liability by presenting "substantial evidence," not a "preponderance of evidence."

Goodrich and Emhart argue that the Advocacy Team must prove all elements required to support the CAO against the parties by a "preponderance of evidence." The applicable precedents, however, hold that the Advocacy Team must meet its burden to prove the elements by "substantial evidence."

As with many of the contentions presented by the parties in this matter, the State Water Board has had several occasions to address this concern. For example, in *Exxon Company, USA* (Order No. WQ 85-7), the State Water Board reviewed an order by the Central Valley Regional Water Board. In upholding the Regional Water Board's actions, the State Water Board noted,

> "...any findings made by an administrative agency in support or an action must be based on <u>substantial evidence in the record</u>. (See, e.g. *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 113 Cal.Rptr. 836.) Thus, while we can independently review the Regional Board record, in order to uphold a Regional Board action, we must be able to find that finding of ownership was founded upon <u>substantial evidence</u>." (*Id* at p. 6) (emphasis supplied)

Later, in a matter involving an order issued by the San Francisco Bay Regional Water Board that named the petitioner to a cleanup order, the State Water Board affirmed its application of the "substantial evidence" test, rejecting the petitioner's arguments that the "preponderance of evidence" test is applicable. *Stinnes-Western Chemical Corporation*, Order No. 86-16.

In subsequent cases, the State Water Board held to the principle that it is "substantial evidence" that applies to Regional and State Board proceedings. *Aluminum Company of America*, Order No. WQ 93-9; *Sanmina Corporation,* Order No. WQ 93-14.

XVIII. In reviewing the disputed facts of this case, the State Water Board should take administrative notice of the Regional Board's experience and expertise.

The State Water Board will be challenged in this matter with the need to weigh competing and conflicting technical opinions about perchlorate discharge in the dischargers' operations, the movement of pollutants through the soils, the rate of ground water movement, etc. The Advocacy Team has utilized its limited resources to present a fair picture of its findings. The Advocacy Team does not have at its disposal the resources that the Emhart Entities and Goodrich have expended in hiring numerous experts from around the country to support their case. It has, instead, had to rely on its own expertise, which is considerable, given the years of experience that the Team comprises. In reviewing the disputed facts, the State Water Board is asked to take administrative notice of

that experience and expertise. In *Stinnes-Western Chemical Corporation*, the State Water Board noted,

> In our review of the record we note several other factors supporting the naming of Stinnes-Western as a discharger. The Regional Board, in its response, has explicitly referred to chemical handling practices standard to the industry at the time Western Chemical owned the site. The Regional Board states that it has found these past standard practices to be insufficient to protect the environment from chemical pollution. The Regional Board notes that typically chemical handling practices in the past did unknowingly allow adverse environmental practices to occur. [FN4] We take administrative notice of the Regional Board's experience and expertise in this area. The Regional Board has regulated similar companies for many years. Currently, the Regional board is engaged in overseeing numerous cleanup operations resulting from improper and inadequate handling of hazardous materials on sites. (Id, at p. 5)

Likewise, in this matter, the Regional Board Advocacy Team has accumulated many years of experience regulating similar cases. It has drawn on that experience and applied it to this case. That experience should not be discounted.

XIX. In reviewing the conflicting expert testimony in this matter, the State Water Board should be guided by a conservative approach to protecting water quality.

As noted above, the State Water Board will be presented with conflicting and complex factual expert opinion. That is the nature of such an important and controversial matter. In making its findings in this matter, the Advocacy Staff requests that the State Water Board exercise caution, as it has done in the past. For example, in *Robert James Claus*, Order No. WQ 85-1, the State Board was faced with a complex, multi-party matter from the Central Valley Regional Water Board involving the discharge of agricultural drainage flows in the west side of

the San Joaquin Valley to Kesterson Reservoir, Grassland and the San Joaquin River. The State Water Board recognized the need to proceed cautiously in its factual determinations. At footnote 18, it noted:

> Additionally, courts have recognized that when environmental disputes involve conflicting theories and experimental results, certain areas of uncertainty must be accepted and findings can do little more than determine the existence of potential harm to human health. That such potential harm may require the abatement of waste discharges to waters is well illustrated by Reserve Mining Company v. EPA, 514 F.2d 492, 520 (8th Cir. 1975). The court held that the record demonstrated a potential for harm from Reserve's discharges, although conflicting scientific test results were received. The court concluded:
> 'These concepts of potential harm, whether they be assessed as 'probabilities and consequences' or 'risk and harm,' necessarily must apply in a determination of whether any relief should be given in cases of this kind in which proof with certainty is impossible. . . .
> 'In assessing probabilities in this case, it cannot be said that the probability of harm is more likely than not. Moreover, the level of probability does not readily convert into a prediction of consequences. On this record it cannot be forecast that the rates of cancer will increase from drinking Lake Superior water or breathing Silver Bay air. The best that can be said is that the existence of this asbestos contaminant in air and water gives rise to a reasonable medical concern for the public health. The public's exposure to asbestos fibers in air and water creates some health risk. Such a contaminant should be removed.' (Emphasis added)
> That the need for public health protection demands a margin of safety to protect against unknowns and caution in the regulation of toxic substances cannot be overstated. 'What scientists know about the causes of cancer is how limited is their knowledge. . . . If regulation were withheld until the danger was demonstrated conclusively, untold injury to public health could result.'
> Environmental Defense Fund v. EPA, 598 F.2d 62, at 89 (D.C. Cir. 1978) concerning polychlorinated biphenyls.

XX. There is no authority for the granting of "costs" against the Regional Board.

The Emhart Entities request that the State Board order the payment of its costs against the Santa Ana Regional Water Board. First, of course, the Advocacy

Team takes the position that the CAO should be entered against all parties named, including the Emhart Entities. In the event, however, that they are not named in a resulting order, the Emhart Entities have failed to cite any authority for that request.

THE EVIDENCE FULLY SUPPORTS THE CAO

I. Although the amount of "scrap" discharged by WCLC may actually be less than the pre-production estimates used by The Advocacy Team, "scrap" containing perchlorate was still discharged to the ground by WCLC.

Emhart argues that less scrap wastes were generated than what the Advocacy Team noted in its memorandum of points and authorities. In estimating the scrap potassium perchlorate from WCLC's production of the M-112 and XF-5A photoflash cartridges, and the M-115 ground burst simulator, the Advocacy Team utilized the estimated percentage of scrap that WCLC records anticipated would be lost in production. These figures were estimated in advance of the production of each of these cartridges. Upon further review of WCLC's documents relating to the photoflash cartridges, the Advocacy Team recognized that the amount of scrap reported in some of the actual production records was different from the pre-production estimated quantities. Where final documents are available, the Advocacy Team concurs that it is more appropriate to rely upon the actual, rather than the estimated, percentage of scrap. Similarly, it is important to evaluate all

relevant documents when making such estimates of the quantity of perchlorate waste.

It appears that expert witnesses Dillehay and Thompson did not review or rely on all of the available documents relating to the production of the M-112 photoflash cartridges, the M-115 ground burst simulator and the XF-5A photoflash cartridges, all of which contained potassium perchlorate. For example, Dr. Dillehay stated that the scrap estimate for the M-112 was 4%, as shown in the "March 3, 1956 Material Status Report", (Dillehay Declaration E-2), but was later revised to 1%, according to the "May 10, 1956 Material Status Report" (Dillehay Declaration E-3). However, an undated "Material Status Report" for the M-112 production indicated 2% scrap (Advocacy Team's Memorandum of Points and Authorities submitted on March 27, 2007 Tab 4). It is therefore unclear whether the correct value for scrap potassium perchlorate during production of the M-112 should be 1% or 2%.

WCLC's production of the M-115 began after production of the M-112 was completed. The M-112 production ended in April 1956 as reflected in the "May 13, 1956 M-112 Production Schedule" (Dillehay Declaration B-13). According to the June 5, 1956 Bill of Materials, production for the M-115 contract began in June 1956 (Dillehay Declaration B-2). In spite of WCLC's familiarity with the production process, WCLC's scrap estimate for the M-115 at the beginning of its production was 5% as reflected in the May 21, 1956 M-115 Contract (Expando I,

Tab 1 (KWK42303)). This indicates that there was still an expectation of a loss of up to 5% of the potassium perchlorate during WCLC's production of the M-115.NO)

Thus, it is evident that there is a lack of certainty with any estimate of the actual percentage of potassium perchlorate that was lost in production of the various WCLC photoflash cartridges. The Advocacy Team concludes that the closest possible estimate of potassium perchlorate scrap for the M-112 and the M-115 is 1% to 2% (Dillehay Declaration E-2, Dillehay Declaration E-3, Expando II, Tab 1 (KWK42303)) ,

The Advocacy Team has only limited records pertaining to the production of the XF-5A photoflash cartridge. Emhart's forensic accounting expert, Thompson, relied upon a single month's records for her assessment of scrap for the XF-5A; however, the most credible estimate of "spoilage" for this contract, as stated in the contract documents, is 3%, based upon the August 3, 1956 XF-5A Material Status Report (Advocacy Team's Memorandum of Points and Authorities submitted on March 27, 2007, Tab 4).

II. Soil tests conducted by the Emhart Parties do not definitively show that there is no perchlorate or TCE that has impacted groundwater or is threatening to impact groundwater from the former WCLC operations.

Emhart argues that the only empirical evidence of waste discharges by WCLC is the trace amounts of perchlorate that were found in the shallow soil in only 3 locations where WCLC formerly operated. It is the collective experience of the Advocacy Team that it is not unusual to find only very low (if any) concentrations of contaminants in shallow soil, especially in very porous soil, many decades after discharges to soil occur at a site. The Advocacy Team has found that empirical evidence is usually lacking in similar situations where samples are taken and analyzed from shallow soil at sites where discharges have occurred many decades earlier. Considering that discharges to soil by WCLC occurred about 50 years ago, it is not surprising that only low concentrations of contaminates are now present in the very shallow soil. The fact that low concentrations of perchlorate are present confirms that perchlorate was discharged at these locations, even though almost all of the perchlorate that was present at these locations many decades ago may have since been transported to deeper soil and to groundwater.

Many of the former WCLC operations took place in areas of the Property where Goodrich, Pyrotronics and Pyro Spectaculars (all of which also used perchlorate salts) later conducted operations. In addition to about 50 years of rainfall, at an average of 15 inches each year falling on this soil, other water applied to the soil in these areas would also accelerate the transport of contaminants to deeper soil and groundwater. Water lines, hydrants, and valves were clearly available at the site (Expando 2, Tab 4). Although WCLC may not have used large amounts of

water in these areas during its operations, Pyrotronics used significant quantities of water in various aspects of their operations, including cleaning the buildings which were the former WCLC press buildings (#2, 3 and 4) with water hoses (Apel (vol 1) 117:12-25). Water was also used for fire suppression in and around the WCLC production buildings during the time of WCLC's activities (Ledbetter (vol 1) 93:1-97:3; 99:5-100:12; 171:22-25), as well as during the period of Pyrotronics' and Pyro Spectaculars' operations at the Property. (Expando 2, Tab 2) . The perchlorate that WCLC discharged to the ground during its operations from 1952 to 1957 would have migrated deeper into the soil as a result of rainfall and the application of water by both WCLC and the subsequent occupants of the property, including Goodrich (which had water lines located around the perimeter of its facility [Polzien (vol 3) 538:10-20]), Pyrotronics and Pyro Spectaculars.

Emhart argues that data from the field investigations performed by Environ, presented in an Environ 2007 Report (Emhart E-1), indicate only two areas where low concentrations of perchlorate were detected, and only in shallow soil. Also, Emhart presents the opinion of Dr. Powell, which is based in part on Dr. Chu's opinion, both employed by Emhart's consultant, Environ, that any perchlorate discharged by WCLC at the property has not, and will not, impact groundwater. This opinion is based, in part, on data from shallow soil samples that indicate no elevated perchlorate concentrations were found beyond approximately 10-25 feet bgs at former locations where WCLC operated.

However, low concentrations of perchlorate were detected only in the shallow soil because Environ did not conduct a deep soil investigation at **any** of the known or suspected WCLC discharge areas that they selected for a shallow soil investigation. With the exception of a handful of borings to 50 feet, Environ did not collect samples at a depth of greater than 25 feet. Therefore, Emhart's conclusions based on the empirical evidence of concentrations of perchlorate in the shallow soil are not supported by deeper soil data. The fact that shallow soil was the only soil sampled at locations where WCLC operated, does not mean that higher concentrations of perchlorate or TCE are not present in the deeper soil, or that the perchlorate and TCE have not reached groundwater as a result of 50 years of migration through the soil. In addition, the highest detections of perchlorate in the shallow soil were found under a concrete walkway, immediately adjacent to the existing building 42 (Environ revised report). This is likely because the concrete walkway would have limited the amount of water that would have entered the soil at that location, thereby limiting the amount of water that would be available to transport all of the perchlorate deeper into the soil, resulting in perchlorate being preserved in the upper soil zone. Dr. Michael Kavanaugh, an expert for Goodrich, testified that in areas of the site exposed to rainfall and applied water, perchlorate could be flushed out of the shallow soils (Kavanaugh, 129:17-130:23, 130:25-131:25). Therefore, it is reasonable to conclude that in other areas where WCLC operated, such as open areas exposed to rain, applied water (such as fire suppression water) or water used by

subsequent occupants of the Property, perchlorate would have migrated deeper into the vadose zone to groundwater.

Additional data to determine if there is any perchlorate deeper in the soil or in the groundwater directly beneath these discharge areas should be obtained by conducting deeper soil investigations, with soil characterization through the vadose zone all the way to groundwater, at specific locations where WCLC discharged waste, similar to the investigation that was done at the McLaughlin Pit. Additional soils investigation at the Property is required by the Proposed Amended CAO. The Advocacy Team has previously advised Emhart that the work proposed in its work plan was insufficient to comply with the CAO (see February 23, 2006, letter from Berchtold to Wyatt). Although Emhart asserts in its brief that no additional investigation of the site is necessary, Dr. George Linkletter, the principal in charge for Environ, Emhart's technical consultant, testified that he does not know yet whether or not Environ will recommend additional investigation work (Linkletter, 69:3-19).

Emhart states that, without large volumes of free water, perchlorate will take hundreds or thousands of years to reach groundwater. Emhart's assertion is misleading, as it ignores the fact that the routine use of water, such as for regular mopping, rinsing and wiping of floors and walls with water-wet rags and mops, and the disposal of such water onto the bare ground, would assist in mobilizing the highly soluble perchlorate salts that were at or just beneath the soil surface.

Any additional water used by subsequent occupants of the Property in these discharge areas would also assist in mobilizing the highly soluble perchlorate salts and transporting the perchlorate to groundwater. The recent investigation by Environ at WCLC's former photoflash cartridge loading building indicates that perchlorate is present as deep as 25 feet bgs (sample AB2 at 25 feet) under the foundation of Building #42 (Environ March 30, 2007). Emhart did not pursue deeper soil investigation at this location.

Six witnesses with a background in hydrogeology (Chu & Powell [for Emhart]; Lass, Kavanaugh & Kresic [for Goodrich]; D.B. Stephens [for Rialto];) have expressed their opinions on vertical transport of perchlorate through the vadose zone at the 160-acre Property. In all cases, these witnesses considered the infiltration of rainwater, under idealized conditions, as the only source of groundwater recharge. Even in this narrow context, and assuming no additional application of free water, the various experts' estimates of the infiltration rate at the Property range from 0.1 foot per year (Chu) to up to 12.5 feet per year (Stephens (vol 2) 395:1-397:15) . Additionally, the site topography was not considered as a factor in the accumulation of water at the ground surface and an increased infiltration rate (e.g. the accumulation of storm water in disposal pits or depressions on the Property). Further, none of the experts was asked to evaluate the known use of water at the Property, or to consider the mobilization of perchlorate by the use of such water.

In addition to the regular disposal of wash water and mop water to the bare ground at WCLC (see WCLC's Standard Operating Procedures (SOPs), Melito Exhibit 17 ; and deposition testimony of former WCLC employees (Davis (vol 1) 114:3-115:17; 163-164; (vol 3) 373:1-23; (vol 4) 496:19-498:21; (vol 10) 1060:2-24; (vol 11) 1091:4-1092:7; Skovgard (vol 1) 118:17-120:12; Gardner (vol 2) 215:7-15; (vol 4) 529:1-18; Pfar 40:7-41:19); also Davis Exhibits 82 and 658), there were many sources of water, such as sink drains, toilets, etc., that primarily discharged to septic tanks that distributed the wastewater through leach fields. Using an average wastewater generation rate of 35 gallons per person per day (per shift), based on the Manual of Septic Tank Practice (United States Department of Health, Education and Welfare; 1957, reprinted 1972), about 770 gallons per month of sanitary waste water would have been discharged to the ground through the septic tank disposal system at the property for each person working one shift per day (based on 22 working days per month) during the time that WCLC operated at the Property. This would be about 3,500 gallons per day or about 924,000 gallons per year based on an average of 100 employees (shifts) per day, not including other water that would have been applied to the ground through other means.

The expert witnesses' opinion on how far contaminants would travel in soil considering only the infiltration of rainfall is based primarily on modeling. Modeling can be a very good *predictive* tool for trying to anticipate what results may occur under specified, predetermined conditions. However, models do not

represent actual conditions. Models have to be calibrated based on actual data that are obtained from the field in order to verify their accuracy. It is the collective experience of the Advocacy Team that the results of most vadose zone models performed at sites in the Santa Ana Region have significantly underestimated the travel distance and travel time when trying to predict how far contaminates would travel and how long contaminates would take to reach groundwater. Unfortunately, there are very limited field data currently available to verify whether the estimates provided by the witnesses on vadose zone transport at the Property are anywhere close to resembling what actually happened under actual conditions over the past 50 years. Therefore, any modeling results that are presented that try to predict the vadose zone transport of contaminants beginning about 50 years ago, and cannot be calibrated or verified, should not be given significant weight over that of the collective experience of the Advocacy Team that has overseen the investigation of over 1,000 sites where discharges of waste to soil have occurred in the Santa Ana Region, and are very familiar with the *actual* impacts of waste discharges to soil and groundwater under the specific conditions that exist in this Region.

WCLC records and testimony of former employees indicate that a number of fires occurred at the facility (Allegranza (vol 1) 61:19-62:25; Wilkins (vol 3) 104:18-25; Gardner (vol 3) 487:17-24; Melito (vol 1) 149:7-150:22; Davis (vol 9) 980:18-22), and that at least three fires and one explosion occurred at WCLC in the period from March 10, 1955 to July 14, 1955 (Skovgard Exhibit 414: WCLC's transmittal of insurance letter, dated January 9, 1956, KWK3144-KWK3152 ; also Davis

Exhibit 122; see also Advocacy Team's Memorandum of Points and Authorities, submitted on March 27, 2007 Tab 3). Employee testimony (Ledbetter (vol 1) 93:1-97:3; 99:5-100:12; 171:22-25) also indicates that fire hoses were available for use and fire suppression water was applied to fires in various WCLC buildings during Mr. Ledbetter's time of employment at WCLC, from 1954 to 1956.

There were hose bibs outside of the buildings at WCLC, including the photoflash mixing building (Davis (vol 8) 817:4-1-25 and 818:1). Former WCLC employees testified that water hoses were used to clean the perchlorate screens and drying trays and other equipment at the WCLC facility (Davis (Vol 1) 147:1-24 and 148-1-3; (Vol 2) 205:17-206:10). Mr. Davis, former plant foreman and superintendent at WCLC, testified that an on-site washing machine was used for washing the rags that were used in the cleanup of dust (including perchlorate) in the buildings at WCLC. The washing machine discharged to the bare ground (Davis (Vol 4) 500:1-23 and 501:1-10). The cleaning of the screens and trays, the use of running water outside of the various buildings, and the discharge from the washing machine at WCLC would have resulted in the discharge of additional water to the ground at the Property. Additionally, the use of water by subsequent occupants of the Property would have further mobilized the residual perchlorate in the shallow soil, even years after WCLC discharged perchlorate at its former facility.

Emhart states that water was not required for fire suppression when WCLC's photoflash building # 42 exploded. It is correct that testimony indicates there was

no fire as a result of the April 12, 1955 explosion, and apparently no fire suppression water was needed or used during the incident (Davis (vol 4) 486:6-12; 488:1-11). However, testimony of WCLC's former plant foreman and superintendent Ray Davis (Davis 12/15/05 488:1-14) indicates that he observed a cloud of dust over the building after it exploded. Mr. Allegranza, a former materials handler at WCLC from December 1954 to May 1956, heard the explosion, and then heard debris pounding on the roof of his adjacent work building (the 4.2 millimeter shell assembly building), then ran outside, where he observed a cloud of smoke or dust coming out of the exploded photoflash building (Allegranza (vol 1) 69:10-70). Mr. Allegranza recalled that "there was debris from the building in the general area" after the explosion (Allegranza (vol 1) 85:14-15). When Mr. Allegranza returned to work after the facility was reopened, after being closed for a while after the explosion, the explosion debris (residue) had been cleaned up (Allegranza (vol 1) 86:15-23). Dust was observed on the ground surface after the explosion (Gardner (vol 3) 463:2-10). Any dust that remained on the ground surface after the explosion would have contained potassium perchlorate, a component of the photoflash powder. Residual perchlorate would have dissolved in water during subsequent rain and application of any free water, and would have discharged into the soil.

Historical documents (WCLC's Standard Operating Procedures (SOPs), Melito Exhibit 17) and deposition testimony of former WCLC employees (Davis (vol 1) 114:3-115:17; 163-164; (vol 3) 373:1-23; (vol 4) 496:19-498:21; (vol 10) 1060:2-

24; (vol 11) 1091:4-1092:7; Skovgard (vol 1) 118:17-120:12; Gardner (vol 2) 215:7-15; (vol 4) 529:1-18; Pfar 40:7-41:19; also Davis Exhibits 82 and 658) indicate that photoflash powder (including perchlorate) was wiped from the surfaces of walls and floors at WCLC. The rags and mops were rinsed in water, and the water was disposed of onto the bare ground. Despite Emhart's assertions that the discharge of powder containing perchlorate to the ground would have been "unreasonable", discharges of perchlorate to bare ground did occur.

Deposition testimony of former WCLC employees indicates that drums of organic solvents, including TCE, were stored at various locations at WCLC during its period of operation (Allegranza Exhibits 698, [site view, annotated by witness] and 700 [enlargement of portion of site photo]; see also RWQCB /USEPA photograph 55-860 [unstamped original], and enlargement of same area in photograph: drum cradle and Rebuttal Binder Tab 1). When the solvent was needed, a drum of the liquid was placed horizontally onto a metal or wooden "cradle", and the liquid was then dispensed through a spigot (Allegranza (vol 1) 40:2-16, 41:7-22). Former WCLC employees have also testified that rags soaked in TCE were used to clean equipment by hand, including at least one of the chemical mixers at WCLC (Allegranza 39:12-21, 42:14-23, 46:9-48:2 ; Pfarr 60:16-62:10).

Emhart states there was never a North disposal trench and a South disposal trench, as the Advocacy Team contends. However, former WCLC employees described disposal trenches at WCLC (Davis Exhibit 84 and (vol 1) 163:1-165:9; 184:7-185:2; ; (vol 2) 373; Skovgard 347:3-350:11; Clayton (vol 1) 30:25-31:8; 79:14-80:4, 80:10-83:13) (vol 2) 246:14-247:6; Pfarr (vol 1) 53:15-54:19). The specific trench locations could not be corroborated by Environ in the field. This does not mean they did not exist. It is no surprise that any trenches or depressions would have been re-graded over the past 50 years, and wastes such as rags and gloves could not be found or are no longer present.

Drums and other containers in a trench are clearly visible in at least one aerial photograph. The trench was located at the southeastern corner of the WCLC facility, adjacent to a former railroad spur (Allegranza, Exhibit 701 [site view, annotated by witness] and Exhibit 702 [enlargement of portion of site photo]; see also RWQCB /USEPA photograph 55-3705 [unstamped original], and enlargement of same area in photograph: trench with drum disposal (Rebuttal Binder Tab 2)). The area of this southeast trench was investigated by Environ, but drums were no longer present, and the depression has been completely backfilled and re-graded over the past 50 years.

As stated in Emhart's brief, WCLC's January 3, 1954 "Safety Regulations for Handling Azides, Styphnates and Similar Explosives", which were approved by the WCLC plant manager and executive vice president, instructed employees

that certain waste liquids were to be "taken to the disposal pit south of the plant site and drained onto the ground" (Davis Exhibit 80 (KWK 43835)). There is no need for specific witness testimony regarding the fact that disposal pits were present at the WCLC facility, as the safety regulation document and the aerial photograph confirm that they existed.

Also, Emhart's aerial photography expert, Wayne Grip, apparently was not asked to review or give his opinion on the 1955 high resolution oblique aerial photograph (Allegranza Exhibits 701 and 702, Rebuttal Binder Tab 2) where drums are clearly visible in the disposal trench on the southeastern corner of WCLC's operations. Consistent with the limited documents the Dischargers provided to the other expert witnesses upon which they were asked to give their opinion, as described elsewhere in this rebuttal, Mr. Grip concluded that there was no evidence of disposal sites at WCLC during its period of operations, apparently based on the limited and incomplete information that Emhart provided to Mr. Grip.

Based on the above, the results of the shallow soil sampling that was performed do not definitively show that perchlorate or TCE is not threatening to reach or has not reached groundwater as a result of discharges of waste by WCLC 50 years ago. Conversely, the results show that perchlorate was discharged, and the evidence indicates that most or all of the perchlorate (and TCE) from discharges by WCLC would have been transported greater than 25 feet in the soil as a result

of 50 years of rainfall and other applied water at the site, which would have mobilized the perchlorate and transported it to deeper soil and to groundwater.

III. The "limited" size and duration of Goodrich's facility at the 160-acre site does not negate Goodrich's liability for the discharges that did occur.

Goodrich engaged in the development and manufacturing of propellants and the loading and testing of rockets at the 160-acre site in Rialto. It is undisputed that these operations generated waste containing perchlorate and that wastes containing perchlorate were discharged to an unlined burn pit. Much of Goodrich's brief focuses on minimizing the quantities or impacts of these discharges, or on pointing fingers at other potential contributors to the pollution in the area. These issues do not negate Goodrich's liability for its discharges.

Goodrich states that the Advocacy Team inflates the size and extent of Goodrich's Rialto operations without any factual support. The Advocacy Team relied upon numerous records to formulate estimates of the quantities of rockets that were manufactured and tested by Goodrich at its Rialto facility. As evidenced by the differences in the estimates that were made by the Advocacy Team, by the experts for the City of Rialto and by the experts for Goodrich, there is clearly some room for interpretation when evaluating the available historical documents and the testimony of various former employees. Ultimately, the exact numbers are not as important as the basic fact that Goodrich manufactured and tested rocket motors and disposed of TCE and waste propellant that contained

ammonium perchlorate at the Property. Former Goodrich employees (Polzien, Sachara, Wever, Graham, Garee) have testified, as verified by Goodrich in its brief, that propellant waste was routinely placed into an open pit at the property and burned.

Goodrich states they never operated a large-scale facility in Rialto. The relevant issue is that Goodrich discharged wastes that impacted groundwater and threatened to impact groundwater, not how long Goodrich operated the facility or how large the facility was in relation to any similar that were operated elsewhere. Further, the declaration of Claude Merrill confirms that the activities in which he is an expert (rocket propellant research and development; participation in manufacturing and testing of rockets and missiles; use of burn pits for disposal of waste propellant at Edwards AFB) typically result in the migration of perchlorate and solvent discharges to groundwater, resulting in regional groundwater contamination issues, such as what occurred at Edwards Air Force Base (Expando 1, Tab 2)

Goodrich states that they were only on-site for a short period of time (5 years) and that their rocket production facility was of a very small scale. They also state that they had a good safety record and followed standard industry practices at that time, and government regulations for the use, handling and disposal of chemicals used for making propellant. They also state that all solid rocket propellant was promptly disposed of and burned in a burn pit, and that

Goodrich's operation did not contaminate and could not have contaminated the groundwater.

However, the duration and magnitude of Goodrich's manufacturing activities in Rialto does not eliminate the fact that Goodrich discharged wastes to the ground in a manner which could impact groundwater, and groundwater data from the site indicates that the wastes did impact groundwater. If Goodrich followed standard industry practices at that time, and the government regulations for the use, handling and disposal of chemicals used for making propellant, then it is reasonable to assume that, similar to other operations that followed standard industry practices at that time, and the government regulations for the use, handling and disposal of chemicals used for making propellant, those practices would have resulted in the discharge of waste, specifically ammonium perchlorate and TCE, to the soil, in a manner that would have contaminated groundwater. Based upon evidence related to Goodrich's operations, i.e. their use of propellant, oxidizers, solvents, and their disposal of all waste into a burn pit, , the manufacturing, testing and disposal of solid rocket propellant has some significant similarities to other operations at that time (e.g. Lockheed-Martin in Redlands, CA; Edwards AFB near Boron, CA), that impacted groundwater.

IV. The amount of "trimming" that occurred does not negate the fact that trimmed propellant was discharged to the burn pit.

Goodrich questions the Advocacy Team's description of the trimming process that occurred at the facility. There is conflicting testimony regarding the amount

of overfilling with propellant and the subsequent trimming of excess propellant from the motor casings (Polzien 4/5/05,103:20 -106:4;139:17-141:22; Wever 2007 declaration; ¶ 40). There is, however, no dispute that excess propellant was trimmed from the Goodrich rocket motors, and disposed of into Goodrich's on-site burn pit. Goodrich also questions the Advocacy Team's description of the frequency of propellant mixing at the facility. There is conflicting testimony on this topic (Polzien, Sachara, Wever). It appears that the frequency of mixing propellant at Goodrich likely varied with the pace of research and development, and the execution of production contracts. The precise quantities of trimming waste generated or the frequency of mixing do not change the fact that these operations generated wastes containing perchlorate and TCE, and these wastes were discharged at the Property.

V. The evidence supports the conclusion that Goodrich used TCE.

Goodrich states that there is no evidence that Goodrich ever used TCE. Goodrich cites testimony from some former employees that they did not recall TCE being used at the site. However, testimony from some employees that they did not recall TCE being used at the site does not mean that it wasn't. TCE was the common chlorinated solvent used by solid propellant manufacturing companies. Two former Lockheed Propulsion Company facilities that operated in the Santa Ana Region during the same general time frame as Goodrich, in the City of Redlands and in the City of Beaumont, and an Aerojet facility in the

Central Valley Region, all used chlorinated solvents (Expando 3, Tab 1) The former Lockheed Propulsion Company facilities in the Santa Ana Region were in operation as early as 1959 and as late as 1973 (Grand Central Rocket Company operated at the Redlands location from 1954 to 1961). According to records from the historical operation of the former facility in the City of Redlands, during the start-up and until approximately 1968, the only chlorinated solvent that was used at the former facility for cleaning solid propellant residue from mixers and other equipment that came in contact with solid propellant was TCE. Based on ongoing groundwater monitoring data for the past 25 years, TCE (and perchlorate) from this facility has been detected as far as 10 miles downgradient of the former facility.

The three non-chlorinated solvents that have been referenced as organic solvents that were used during Goodrich's operation at the 160-acre Site, methyl ethyl ketone, acetone and cyclohexanone, have not been detected in any of the groundwater samples collected from CMW-02. It is interesting to note that TCE, the one chlorinated solvent detected in shallow soil at the burn pit and in groundwater directly downgradient of the burn pit, is the chlorinated solvent Goodrich claims it did not use, and the solvents Goodrich claims it may have used or did use have not been detected in shallow soil at the burn pit nor in groundwater directly downgradient of the burn pit. (Although acetone was detected in some soil samples at the burn pit, it was determined to be a laboratory contaminant by Goodrich's consultant.) Two former Goodrich Rialto

employees (Polzien and Wever) initially testified that TCE was used during Goodrich's operations. Each of these two individuals later indicated uncertainty as to the type of solvent – stating that it might be TCA or other solvents. However, solvents other than TCE are not present in the groundwater or soil at the Property.

Further review of the chemical properties of these three solvents reveals the following: Both acetone and methyl ethyl ketone are flammable solvents at room temperature and therefore would not have been recommended for extensive use near explosives, such as solid propellant. Any sparks generated in the buildings where these solvents were used, considering the vapor that would have been present (2% to 12%) in the room, would have created the immediate risk of fire or explosion. In the case of cyclohexanone, its handling and use at the site in large quantities for cleaning mixers and other tools that were used for mixing propellant would have been considered dangerous due to its relative flammability. TCE is not a flammable solvent.

The evidence clearly supports the allegation that Goodrich disposed of TCE in its burn pit. TCE is present in groundwater downgradient of the burn pit, and at least two former employees (Wever (vol 1) 58:4- 59:21 and 70:7-17; Polzien (vol 2) 172:9-13 and 270:7-11) testified that TCE was used at Goodrich's facility. On further and repeated questioning, both witnesses were later uncertain about the specific solvent that Goodrich had used. Standard industry practice at the time of

Goodrich's Rialto operations was the use of TCE, such as at the Lockheed facility, where several former Goodrich employees went to continue their work in the rocket propellant industry after the Goodrich Rialto facility closed. Also, Dr. Dillehay, a munitions witness on behalf of Emhart, was employed from 1958-1996 by the Thiokol Corporation as a scientist, manager, supervisor, project engineer and chemist at the Longhorn Army Ammunition Plant in Marshall, Texas (Dillehay Declaration ¶ 4). His work from 1958 to 1965 was related to solid rocket motors. Dr. Dillehay stated that trichloroethylene (TCE) was the only solvent that was used to degrease rocket motor casings during Thiokol' s manufacturing of solid rocket motors that contained ammonium perchlorate. Since Goodrich was in operation during that same time-frame, it would stand to reason that they too used TCE. (Dillehay (vol 1) 19:23-20:23; 21:4-25; 55:13-57:3).

VI. The burn pit is a source of perchlorate and TCE contamination.

Goodrich discharged propellant waste, which contained ammonium perchlorate and trichloroethylene (TCE), into the burn pit. Board staff experience with oversight of investigation at the Lockheed rocket manufacturing and disposal facilities in Redlands and Beaumont, California, which had the same process as Goodrich of burning propellant waste in a burn pit, indicates that the burning of propellant waste in a pit is not as clean a process as Goodrich claims. Also, TCE is present in soil gas at the Goodrich pit and in groundwater downgradient of the

pit, indicating that the Goodrich pit is a source of TCE contamination. More water than Goodrich asserts would have percolated into the soils beneath the pit, and provided the mechanism for perchlorate and TCE to be transported to groundwater. In addition to the average rainfall of about 15 inches per year that fell into the depression of the pit, additional water from liquid wastes from operations at Goodrich were discharged to the pit (Wever (vol 1) 26:10-27:17; 49:6-20; Polzien (vol 6) 1230:22-1231:4), and storm water would flow into Goodrich's burn pit during rainy weather (Garee 253:3-8)

Goodrich states that the Advocacy Team does not provide any reliable evidence to support allegations that propellant remained in the burn pit after a burn. However, there is no testimony to indicate that any waste was ever removed from Goodrich's burn pit, so therefore, at a minimum, ash and similar residue remained there. Goodrich does not provide any direct evidence to support its allegations that propellant did not remain. Although there is conflicting testimony whether propellant remained overnight in the pit prior to being burned, this point is not particularly important, since the fact that propellant waste was placed into a bare earthen disposal pit was a discharge of waste to the ground, and indicates the potential for groundwater contamination.

In June 2004, GeoSyntec, the consultant for Goodrich Corporation, collected soil gas samples at Area C, at the location of the former Goodrich burn pit. Low concentrations of TCE, up to 1.7 ug/l in borings SG-BP-09, SG-BP-10 and SG-BP-13 at depths of 6 and 12 feet bgs, were detected. (Although TCE was not

detected in laboratory analyses of the soil samples collected, the laboratory reporting limits for some of these samples were as high as 38 ug/kg.) TCE would not be present at this location if Goodrich did not use TCE at the site. The highest concentrations of TCE detected in groundwater samples collected at the 160-acre site are from monitoring well CMW-02, located approximately 200 feet directly downgradient of Goodrich's burn pit, near the Test Bay Stand. This would be consistent with TCE being discharged to the groundwater at the former burn pit site. TCE concentrations in CMW-02 have ranged from 180 ug/l to 1,500 ug/l. TCA has not been detected in any of the soil or soil gas samples from the burn pit, or in groundwater at CMW-02.

VII. The evidence supports the conclusion that there were two burn pits at the Goodrich Facility.

Although Goodrich states it disposed of all propellant wastes in a single burn pit, the evidence indicates otherwise. On a 1963 and a 1965 aerial photograph a second disposal area is visible, located approximately 500 feet southwest of the Goodrich burn pit that is near the static test bay. As a result of Environ's investigation, what evidently was a second disposal pit (area D-1) was excavated in April of 2006. Several balls of synthetic rubber (photographs in Advocacy Team's Memorandum of Points and Authorities submitted on March 27, 2007, Tab 31/32 and Rebuttal Binder Tab 3) were found on top of the waste materials in this former burn pit. This synthetic rubber material had a light gray color. The cured solid propellant resulting from the formula that Goodrich used had a dark

gray color (Wever 360:11). Based on Board staff's observation of waste that was excavated from the D-1 pit, it appeared that all the waste in the pit had not been completely consumed during past burns. After collection of soil and material samples by the consultants for Emhart and Goodrich, all remaining waste material and soil was put back in the pit. Concentrations of perchlorate in the soil and material samples range from 1,700 μg/kg to 6,800 μg/kg (Emhart E-1).

Mr. Adam Bennett's testimony regarding his review of aerial photographs (as an expert for Goodrich) is questionable, considering the photographs he reviewed. The 1963 aerial photograph (also described above) shows Goodrich's operations and two disposal pits (see items circled in yellow slide 3 from 11/16/05 power point presentation by Robert Wyatt at Regional Board special hearing in Rialto, CA - prepared by Environ on behalf of Emhart/B&D entities (Document source – CD dated and submitted to Hearing Officer on 2/9/07))., and data from the field investigation by Environ at site D-1 (Emhart E-1 and Rebuttal Binder Tab 3) found evidence consistent with the 1963 photo that shows a disposal pit. Mr. Bennett did not obtain, nor did it appear that Goodrich provided to him, the above-referenced aerial photographs from 1963 and 1965. These two photographs contain much clearer detail than the 1960 and 1966 photographs that Mr. Bennett relied upon for his conclusions regarding area D-1.

VIII. The evidence leads to the conclusion that the Sidewinder salvage operation did result in the discharge of propellant.

Goodrich states that the evidence does not support the allegation that the Sidewinder salvage project resulted in the discharge of propellant. However, perchlorate concentrations in groundwater downgradient of the location of the salvage operation indicate the presence of an upgradient source of perchlorate contamination. Monitoring well CMW-04, located directly downgradient of the location of the Sidewinder salvage operation, has shown perchlorate concentrations as high as 34 ug/l and TCE concentrations as high as 40 ug/l. Goodrich disputes the testimony cited by the Advocacy Team that states water and solvent was used to spray out the propellant in the defective Sidewinders. There is conflicting testimony regarding how the waste propellant in these defective Sidewinders was removed. Only Mr. Polzien (Polzien (vol 1) 149:16-150:23; (vol 5) 770:18-771:12 and 772:9-773:1) recalls the use of water to spray out the propellant in the defective Sidewinders. However, it is important to note that all deponents agreed that the waste propellant from the defective Sidewinder rockets (which contained ammonium perchlorate) was removed from the casings and was discharged as waste into the burn pit at the Property. Also, there may have been significant residue of propellant scraps on the concrete, asphalt and soil at the Property as a result of the salvage operation, according to Mr. Polzien's testimony (Polzien (vol 5) 832:11-833:11; (vol 6) 1104:13-1106:9.

IX. Pyro Spectaculars did discharge waste containing perchlorate.

In 1979, Pyro Spectaculars, Inc. (hereinafter Pyro Spectaculars) was formed by the Souza family as a California Corporation. Pyro Spectaculars established

operations in 1979 on three contiguous parcels, consisting of approximately 47 acres within the Property (acreage based on San Bernardino County Assessors' records). Pyro Spectaculars argues that only 25 acres of these 47 acres is actually used by Pyro Spectaculars. This does not change the fact that Pyro Spectaculars operates on three contiguous parcels, consisting of a total of 47 acres.

Since 1979, Pyro Spectaculars' operations at the site have included importing pre-manufactured components for various fireworks, assembling fireworks displays, assembling fireworks assortment packages, storing and testing fireworks, and the storage and disposal of waste. Pyro Spectaculars continues many of these same activities at the Property today. Contrary to Pyro Spectaculars' argument that they no longer discharge any waste at the site, their current activities include the testing of pyrotechnic devices. Pyro Spectaculars disputes the validity and relevance of the Massachusetts Department of Environmental Protection's 2005 Draft Report entitled "Evaluation of Perchlorate Contamination at a Fireworks Display" (see Advocacy Team's Memorandum of Points and Authorities submitted onMarch 27, 2007, Tab 28) wherein it is demonstrated that residue of perchlorate remains in the soil at locations where aerial fireworks are launched and displayed. Pyro Spectaculars argues that the Massachusetts site is too different for such a comparison, because the groundwater in Rialto is deeper than the groundwater at the location described in the Massachusetts report. The argument is invalid; the depth to groundwater

does not alter the fact that perchlorate residue was found to be present in the soil at locations where the aerial fireworks were launched and displayed. It is reasonable to conclude that such residue would also be present at other pyrotechnic launching and display locations, including areas used by Pyro Spectaculars for the testing of aerial shells and Roman candles in Rialto.

Pyro Spectaculars falsely claims that their use of the McLaughlin (Apollo) disposal pit ended in 1983. Evidence clearly indicates that Pyro Spectaculars used the McLaughlin Pit for disposal of its pyrotechnic waste until some time *beyond* 1983. Correspondence dated January 4 and January 17, 1984 (Hescox Exhibits 194 and 195: see Advocacy Team's Memorandum of Points and Authoritiessubmitted on March 27, 2007, Tab 26; see also Pyro Spectaculars Exhibits P58 and P59) between Apollo's General Manager and Pyro Spectaculars' Plant Manager describes the pyrotechnic component of the various aerial shells that Pyro Spectaculars disposed of into the McLaughlin Pit. The January 17, 1984 letter states that Pyro Spectaculars' waste contained potassium perchlorate. Pyro Spectaculars claims that shells were removed from the Pit; however, the only apparent basis for this claim is a report prepared by Kleinfelder, Pyro Spectaculars' technical consultant, in 2005. Perchlorate salts are highly soluble and dissociate in water to form perchlorate ions. Potassium perchlorate would have been readily dissolved from shells discharged into the Pit by Pyro Spectaculars. Therefore, the standing water in the McLaughlin Pit would have contained perchlorate, and it is reasonable to conclude that some of this

perchlorate came from waste that was disposed of by Pyro Spectaculars. It is undisputed by any of the parties to this proceeding that the McLaughlin Pit is a significant source of perchlorate to the groundwater at the 160-acre Property.

Historical records of Pyro Spectaculars' product inventory indicate that many different fireworks products were stored, tested and disposed of at the Property by Pyro Spectaculars. Potassium perchlorate is known to be used as an oxidizer in fireworks. The 1984 correspondence (cited above) clearly indicates that fireworks products and waste materials from Pyro Spectaculars' operations contained potassium perchlorate. Although Pyro Spectaculars emphasizes in its arguments that they disposed of materials such as fuse and Quickmatch, it is important to note the numerous disposal reports (1987-1988 Rialto Fire Department Records, RIALTO3447763-64; RIALTO049364-65; RIALTO049367-70) list Pyro Spectaculars' disposal of "loose powder".

Pyro Spectaculars does not deny that fires and explosions occurred at their Rialto facility, resulting in the use of water for fire suppression. Perchlorate salts are a component of Pyro Spectaculars' various pyrotechnic products, such as aerial shells. It is reasonable to conclude that in some or all instances, there would have been residue of perchlorate salts at the site of an explosion or fire. Any application of free water to areas where perchlorate residue remained in the soil (either from Pyro Spectaculars or other parties) would mobilize the highly soluble perchlorate. It is not necessary for the Advocacy Team to quantify the

amount of perchlorate that would have been present after these incidents, because any discharge of waste containing perchlorate to the ground constitutes a threat to water quality.

UNRELATED DISCHARGES

I. The County of San Bernardino and Robertson's Ready Mix.

The dischargers also address the Regional Board's actions with respect to the perchlorate and TCE plume that originated from property owned by the County of San Bernardino adjacent to the Mid-Valley Sanitary Landfill. The use of settling ponds associated with the Robertson's Ready Mix sand and gravel operation, which operated under an agreement with the County on the County's property beginning in 1999, caused the mobilization of perchlorate in the vadose zone to the groundwater. Perchlorate was not known to be in the vadose zone or groundwater underlying this property until a monitoring well immediately downgradient of the County's property began detecting perchlorate at low concentrations in April 2000.

Subsequently, the Executive Officer directed the County and Robertson's Ready Mix to cease use of the ponds, the County initiated a groundwater investigation, and the Regional Board issued a cleanup and abatement order in January 2003. The CAO was amended in September 2004 to require replacement water. The County has accepted responsibility for the plume, prepared and implemented an

interim remedial action plan, provided wellhead treatment for the municipal water supply well that was impacted by the plume (the well is also providing partial containment of the plume), and in March 2007, submitted modeling results and design plans for the installation of two extraction wells for containment of the plume.

The groundwater quality data from monitoring wells installed by the County, monitoring wells installed by Goodrich in association with the investigation of the 160-acre Property, and municipal wells in the area, clearly show that the perchlorate plume emanating from the 160-acre Property is distinct from the plume emanating from the County's property. The County plume is essentially migrating parallel to and directly west of the 160-acre Property plume. The data show that the two plumes are likely completely separated, with any minimal overlap that may exist being insignificant for the purposes of addressing the two plumes separately. The two plumes are being addressed separately by the Regional Board, and the County has taken responsibility for addressing the plume associated with its property. Issues related to the County plume are therefore irrelevant to this proceeding.

II. Agricultural use of Chilean Nitrate.

Goodrich asserts that "the historical use of Chilean nitrate fertilizer is an obvious source of the perchlorate contamination found in many of the wells throughout the Rialto-Colton Basin." (Goodrich Brief, Page 182, line 9) Although Goodrich

does not provide any direct evidence that perchlorate is "an obvious source" of perchlorate contamination in the Basin, the Advocacy Team does believe that the historical use of Chilean nitrate *may* be a source of perchlorate in the Basin. But there is no evidence that Chilean nitrate is a source of perchlorate at, or directly downgradient of, the 160-acre site. The dischargers' argument that the historical use of Chilean nitrate is "an obvious source" of perchlorate does not negate the dischargers' liability and is merely another effort by the dischargers to divert attention from their own liability.

The issue of Chilean nitrate as a potential source of perchlorate in the basin is irrelevant to the proposed CAO. The proposed CAO requires the Dischargers to investigate, cleanup and provide water replacement, jointly and severally, for *wastes they discharged*. Finding 54 of the proposed CAO states, "The Dischargers have caused or permitted, or are causing or permitting, or threaten to cause or permit *waste*, i.e., perchlorate or TCE, to be discharged... Therefore, it is appropriate to order the Dischargers to clean up *the waste* and abate the effects of *the waste*" (italics added). Finding 71 states, "Therefore, in accordance with Section 13267 of the California Water Code, it is appropriate to order the Dischargers to furnish technical reports that delineate the extent of the perchlorate and TCE in the affected groundwater management zones *that resulted from waste that has been discharged, or is being discharged, by the Dischargers*." The proposed CAO does not order the Dischargers to investigate,

cleanup and provide water replacement for any perchlorate that can be shown to have resulted from the historical use of Chilean nitrate.

Page one of the Advocacy Team's Points and Authorities, submitted on March 27, 2007 states "Available evidence indicates that a primary source, *although not the only source*, of the perchlorate in the Rialto Groundwater Management Zone is a 160-acre property in north Rialto, bounded by..." (emphasis added). The proposed CAO and the Points and Authorities in support of the proposed CAO were never intended to be a detailed, comprehensive evaluation of all the actual and potential sources of perchlorate in the Basin. The proposed CAO and the Points and Authorities were intended to address only the responsibilities for wastes discharged at the 160-acre site by the Dischargers, pursuant to sections 13267 and 13304 of the CWC. Therefore, other potential sources of perchlorate in the basin, such as perchlorate from the historical use of Chilean nitrate, are not addressed in the proposed CAO and the Points and Authorities.

Goodrich misrepresents the Advocacy Team's position on the issue of Chilean nitrate fertilizer as a potential source of perchlorate. Goodrich claims the Advocacy Team "ignored the historical use of Chilean nitrate fertilizers in the Rialto-Colton Basin," "disregards the widespread existence of the citrus groves and other agricultural activity as sources of perchlorate contamination in the Rialto-Colton Basin," "incorrectly implies that no significant agricultural activities were near enough to the 160-acre Parcel to have caused any of the perchlorate

contamination detected throughout the basin," "The Advocacy Team's disregarding of Chilean nitrate fertilizer is unsupported and contrary to the evidence," and "The Advocacy Team's conclusory dismissal of Rialto's agricultural history and Chilean nitrate fertilizer as a source of perchlorate contamination, however, is based on a wholly inadequate investigation." These statements by Goodrich are incorrect. As noted above, the discussion of Chilean nitrate in the CAO and Points and Authorities is limited because of its lack of relevance to these proceedings.

Goodrich makes numerous erroneous, contrived or ill-conceived statements in this section that distort the facts and exaggerate the amount of perchlorate from Chilean nitrate that may have been historically applied in the basin. Despite the fact that the issue of Chilean nitrate as a potential source of perchlorate in the basin is not relevant to the proposed CAO, these statements warrant a response from the Advocacy Team.

- On page 172, lines 24-27, Goodrich states, "As documented below, during the early-to-mid 1900s, extraordinarily large quantities of Chilean nitrate fertilizer were applied to citrus groves located in and around the Rialto Groundwater Management Zone." As explained further below, this "documentation" is nothing more than speculation that is exaggerated.

- On page 173, beginning with line 6, Goodrich accurately states, "The Advocacy Team contends that 'Chilean nitrate does not appear to be a source of perchlorate at the 160-acre site,'"... However, beginning on line 11, Goodrich states that this position is flawed for two reasons, "(1) the statement does not address the issue of whether it is a source of perchlorate at the wells throughout the basin, and (2) the statement that citrus groves did not exist 'hydrologically upgradient of the Property' is empirically false." Regarding (1), the quote attributed to the Advocacy Team clearly is with respect only to *the 160-acre site*. This statement does not and was not intended to refer to the remainder of the basin. Therefore, Goodrich's position that this statement is flawed because it does not refer to the remainder of the basin is based on a misstatement of the Advocacy Team's position. Regarding (2), further clarification of that issue is provided further below.

- On page 173, line 20, Goodrich states, "The Advocacy team has identified Robert Holub, Supervising Water Resource Control Engineer for the Regional Board, as the source of its opinion that Chilean nitrate may be disregarded as a source of perchlorate in the Rialto Basin." This statement is absolutely false. The Advocacy Team, including Robert Holub, has never stated that Chilean nitrate may be disregarded as a source of perchlorate in the Rialto Basin. This statement misrepresents the Advocacy Team's position, which is that "Chilean nitrate does not

appear to be a source of perchlorate *at the 160-acre site"* (emphasis added).

- On page 180, lines 5-8, Goodrich states that, by the 1930s, 20,000 pounds of perchlorate were being applied directly to the soil in the Rialtoarea. This is based on the sentence preceding lines 5-8 that cites Kavanaugh's declaration that an average of 1,000 pounds per acre per year of Chilean nitrate fertilizer was being applied to citrus groves in Rialto. (Kavanaugh bases this number on a quote from a 2005 report by GeoSyntec, Goodrich's technical consultant.) Based on the research performed by the Advocacy Team, this application rate is twice as much as the highest application rate that would have been made to an individual citrus grove, and 5 to 10 times higher than the average application rate that would have been made to citrus groves where Chilean nitrate was used in the Inland Empire, including the Rialto-area. The 1,000 pounds per acre per year number is based on the GeoSyntec reference noted above, and is alleged to represent the "widely accepted application rate" of Chilean nitrate to fruit orchard soil throughout California. However, based on the Advocacy Team's research, this was definitely not the case in the Inland Empire.

In the Inland Empire, the average nitrogen application rate was about 1 ½ to 2 pounds per tree, or 150 to 200 pounds of nitrogen per acre. It

was almost universal that at least 50%, sometimes substantially more, of the nitrogen loading that was applied was organic nitrogen (dairy manure, straw, tankage, blood, etc.), and the remainder was inorganic nitrogen (Chilean nitrate is inorganic nitrogen). Also, other forms of inorganic nitrogen were available, and farmers also used these other forms of inorganic nitrogen in addition to, or instead of, Chilean nitrate to make up the usual 50%, plus or minus, portion of the nitrogen loading that was inorganic. Using up to 50% of the total nitrogen loading as inorganic nitrogen is consistent with the three to five pounds of Chilean nitrate fertilizer per tree per years that Goodrich cites was applied to Mr. Morgan's orchard, and consistent with the upper end of the application rates that were apparent in the Advocacy Team's research (5 pounds of Chilean nitrate per tree represents about 0.8 pounds of inorganic nitrogen, which is about 50% of the 1 ½ to 2 pounds of nitrogen loading per tree per year).

Although some farmers used up to three to five pounds of Chilean nitrate per tree per year, the Advocacy Team's research revealed that it was more common for most farmers that used Chilean nitrate to apply 100 to 200 pounds of Chilean nitrate per acre. This rate is for those farmers that used Chilean nitrate. However, the Advocacy Team's research revealed that many farmers did not use Chilean nitrate at all. Some of them used other forms of inorganic nitrogen instead of Chilean nitrate,

many farmers used multiple sources of inorganic nitrogen, and some farmers used almost exclusively organic nitrogen. Also, there were several periods of time from the early 1900s through the 1940s when Chilean nitrate was expensive compared to other fertilizers and was therefore used much less, and there were periods of time when the supply of Chilean nitrate was just not available.

Therefore, Goodrich's calculations that 20,000 pounds of perchlorate were applied every year to soil in the Rialto area, based on an application rate of 1,000 pounds per acre per year of Chilean nitrate on every acre of citrus every year in Rialto is grossly exaggerated. A more realistic, but still very liberal estimate would be about 1,500 pounds per year of perchlorate that was applied in the Rialto area (based on an average 150 pounds of Chilean nitrate per acre per year on 50% of the groves). In addition, this perchlorate loading would have been spread over a very large area of Rialto (but not on the 160-acre site), and would explain the Advocacy Team's belief as to why low concentrations of perchlorate, generally in the low-to-mid single digit range, are present in groundwater throughout the Inland Empire where high-density citrus groves existed.

- On page 173, Goodrich states that the Advocacy Team's contention that "Chilean nitrate does not appear to be a source of perchlorate at the

160-acre site" and "citrus groves do not appear to have existed at or hydrologically upgradient of the property" is flawed because the statement that citrus groves did not exist hydraulically upgradient of the Property is empirically false. Goodrich cites Bennett's Declaration, and 13 exhibits to that Declaration to support this contention. Later on, on page 181, Goodrich is more specific regarding their position on this issue, and states that "an aerial photograph taken in 1930, shows orchards approximately 2.14 miles to the northwest of the 160-acre parcel."

Empirically, Goodrich is correct. However, it is of little significance. The 1930 photograph does show a few small citrus groves, possibly less than 20 acres, along the foothills approximately 2.14 miles to the northwest of the 160-acre parcel. However, the primary citrus growing areas in the Inland Empire at that time had many square miles of high density citrus production. This was the situation south of Baseline Road in Rialto, about two miles south of the 160-acre site. Based on the typical density of about 100 trees per acre, in these high density growing areas, it would not be unusual for two square miles of citrus to contain about 128,000 citrus trees. This is typical of the historical high density citrus production areas that were heavily fertilized, that did receive some perchlorate, and that the Advocacy Team believes may be responsible for the generally low-to-mid single digit range of perchlorate

concentrations that are generally present in groundwater throughout the Inland Empire where high density citrus groves existed.

In the 1930 photograph that Goodrich references to contest the Advocacy Team's statement that "citrus groves do not appear to have existed at or hydrologically upgradient of the property", it is clear that there are no citrus groves on, immediately adjacent to, or in the over two square mile area that is immediately upgradient of the location of the 160-acre parcel. In this photo, there is what appears to be less than 20 acres of citrus approximately 2.14 miles to the northwest of the 160-acre parcel, along the foothills, in an area where the photo shows surface drainage flowing southwest, away from the 160-acre parcel, and in an area that arguably may not be upgradient of the 160-acre parcel. This clearly supports the Advocacy Team's position that the evidence does not show that that were any citrus groves, or at the very least any citrus groves of any significance, at or upgradient of the 160-acre parcel that could reasonably be considered a source of perchlorate at the 160-arce site. This position is supported by the perchlorate data from monitoring well PW-1, which is located immediately upgradient of the 160-acre site. PW-1 is located along the northern boundary of the 160-acre site and just west of the northwest corner of the 160-acre site. Water quality data from PW-1 would generally be considered to be representative of groundwater migrating onto the site from upgradient sources. PW-1 has

been sampled on a quarterly basis from October 2004 through February 2007. Perchlorate has been non-detect in eleven of the fourteen samples obtained from this well. The three detections were 6.3, 1.6 and 1.2 ug/l. At these infrequent, low detections, it is not clear if these minor detections are a result of sampling or laboratory anomalies. However, these data are clearly not indicative of an upgradient source impacting the 160-acre site.

THE MCLAUGHLIN PIT

I. The evidence supports the conclusion that the McLaughlin Pit is a source of perchlorate contamination.

Goodrich notes that Pyrotronics discharged wastes containing perchlorate to the McLaughlin Pit for nearly sixteen years (actually it was nearly 12 years, from about 1971 to mid-1983). However, as noted earlier herein, Pyrotronics no longer exists, and the Advocacy Team is not aware of any successors that could be held liable for Pyrotronics' discharges at the site.

Goodrich not only attempts to divert attention from their own liability by emphasizing the discharges by Pyrotronics and Apollo, but also attempts to shift blame for these discharges to Board staff. It claims that the Regional Board staff failed to properly "oversee the construction, operation and closure" of the Pit. As will be seen, however, Goodrich's conclusions about which regulations were

applicable to the Pit are mistaken. Therefore, its entire argument about failure to implement Subchapter 15 fails. Moreover, Goodrich's claims about improper staff regulation of the Pit are based entirely on speculation. The record demonstrates that the staff properly regulated the Pit and used the applicable regulations that were in effect at the time. Goodrich's overall claim, that the regional board (and the State) is somehow responsible for discharges from the Pit, fails.

II. Subchapter 15 did not apply to the McLaughlin Pit during the relevant time period. The Pit was duly regulated by the Regional Board staff based upon facts known to it at the time.

Goodrich asserts that Board staff did not fulfill its alleged obligations to require groundwater monitoring and closure under the Subchapter 15 regulations that became effective in November 1984. The Advocacy Team has reviewed the Subchapter 15 regulations dating from their original adoption by the State Water Resources Control Board in March 1972, and subsequent amendments, through the major amendments that occurred in November 1984. As a result of this review, the Advocacy Team concludes that the amendments to Subchapter 15 that became effective in November 1984 were never applicable to the Pit. Therefore, any allegations made by the Dischargers that Board staff did not require groundwater monitoring and closure as required under the Subchapter 15 regulations that became effective in November 1984 are not relevant. The Pit was never regulated under Subchapter 15 prior to November 1984 and was not required to be. Therefore, any references to the applicability of Subchapter 15 to the Pit at any time, before or after November 1984, are erroneous.

Goodrich came to its erroneous conclusions during the discovery process in this matter. Goodrich conducted depositions of numerous current and former

regional board staff members. During those depositions Goodrich presented the deponents with copies of the contents of Regional Board records relating to the Pit. Among the records was a form letter that had been sent out to many possible waste management units, including to the Pit owners, asserting that Subchapter 15 required certain actions. A review of the record demonstrates that Goodrich's conclusions concerning that letter are wrong.

The Regional Board's records show that on November 24, 1971, the Regional Board adopted Waste Discharge Requirements, Order 71-39, for Apollo's (Pyrotronics) proposed discharge of fireworks waste to a concrete pond (McLaughlin Pit). On March 2, 1972, the State Water Resources Control Board adopted Subchapter 15 as an addition to Chapter 3, Title 23, of the California Administrative Code. Since Order 71-39 was adopted prior to the effective date of the new Subchapter 15 regulations, Subchapter 15 did not exist at the time of its adoption.

Sites where disposal of waste to land was occurring, or where disposal of waste to land was proposed, were not automatically covered under the new Subchapter 15 regulations. The Subchapter 15 regulations were only applicable after a Regional Board chose to implement the regulations by adopting waste discharge requirements incorporating the classification systems addressed in the Subchapter 15 regulations. There was no mandate in the Subchapter 15 regulations requiring a Regional Board to implement the Subchapter 15 regulations for a particular site under any specific timetable.

In a letter dated November 16, 1977, Regional Board staff notified Apollo that, as a result of the Regional Board's adoption of a new Water Quality Control Plan in 1975, the waste discharge requirements for Apollo needed to be revised. On December 30, 1977, Apollo submitted a revised report of waste discharge. On May 12, 1978, the Regional Board adopted revised waste discharge requirements, Order No. 78-96, for Apollo. At the time Order No. 78-96 was

adopted, the Subchapter 15 regulations that were adopted on March 2, 1972 were in effect, including amendments that were adopted on December 21, 1972, March 3, 1973, November 15, 1973 and May 22, 1974. However, once again, the Subchapter 15 regulations were only applicable after a Regional Board chose to implement the regulations by adopting waste discharge requirements that incorporated the classification systems addressed in the Subchapter 15 regulations, and the Regional Board was under no obligation to implement the Subchapter 15 regulations. Since these waste discharge requirements did not implement the Subchapter 15 regulations for this site, this site was not covered under the Subchapter 15 regulations during the time the site was regulated by Order No. 78-96, which includes the time the Pit ceased accepting waste in 1983, was closed in 1987, and until the waste discharge requirements were rescinded in 1991.

New Subchapter 15 regulations became effective on November 26, 1984.

Section 2510 (d) of the 1984 amendments states:

> Waste management units which are operating, or have received all permits necessary for construction and operation, on or before the effective date of this subchapter shall be designated as existing waste management units. This includes disposal sites classified under previous regulations and unclassified waste management units. Dischargers shall continue to operate existing waste management units under existing classifications and waste discharge requirements until those classifications and requirements are reviewed in accordance with Subsection 2591 (c) of this subchapter.

Section 2510 (d) (1) states:

> Within six months, dischargers are required to develop monitoring programs which comply with the requirements of Article 5 of this subchapter for existing waste management units, and shall submit such programs to regional boards for approval.

Section 2510 (g) of the 1984 amendments states:

> Persons responsible for discharges at waste management units which are closed, abandoned, or inactive on the effective date of these regulations may be required to develop and implement a monitoring program in accordance with Article 5 of this subchapter. If water quality impairment is found, such persons may be required to develop and implement a corrective action program based on the provisions of this subchapter.

Article 10 of the 1984 amendments (Definitions) states:

> "Operating" means waste management units which are *currently receiving wastes.* It also includes temporarily idle units containing wastes and at which discharges of waste may resume. (emphasis added)

On an Inspection Report Form dated January 24, 1985, Bruce Paine of Regional Board staff reported that "They haven't used the pond in 18 months. All extra and inferior gun powder is burned." 18 months earlier would be July 1983—prior to the adoption of the 1984 amendments. Paine also reported on the form that "They want to remove all material (water sludge and debris) from pond so they can demolish pond and sell a portion of their property." On April 2, 1985, Board staff sent a form letter to Apollo that was also sent to numerous dischargers in the Region. The letter requested that a proposed groundwater monitoring program be submitted in accordance with the new revised Subchapter 15 regulations. On April 29, 1985, Board staff received a letter dated April 26, 1985, from Apollo, stating "In response to your request for submittal of proposed monitoring programs, our impervious pond is no longer in use." From this information, and Mr. Paine's inspection report, it is apparent the Pit had not received waste since about mid-1983, well before the effective date of the revised Subchapter 15 regulations.

The Pit was a waste management unit. However, it was also an *unclassified* waste management unit. It was not an *existing* waste management unit. The regulations were clear in that an *existing* waste management unit was one that

was *operating* on or before the effective date of the subchapter. As noted above, the waste management unit had not received waste since about mid-1983, almost a year-and-a-half before the effective date of the revised Subchapter 15 regulations, and therefore was not operating on or before the effective date of the subchapter. In accordance with the Article 10 definition of "operating," the pond was not "currently receiving wastes." Also consistent with the definition of "operating", the information available to the Regional Board staff, as reflected in the record is that the pond was not "temporarily idle... at which discharges of waste may resume," but instead it was an *unclassified* unit that had not received wastes in almost two years as of April 1985, and was intended to be demolished as soon as possible so the property could be sold.

Therefore, the information available to the Regional Board staff at the time shows that the waste management unit was an *inactive* waste management unit, similar to an inactive landfill, which is one that contains waste, but is no longer accepting waste. According to Section 2510 (d) (1), only *existing* waste management units were required to submit monitoring programs, and according to Section 2510 (g), *inactive* waste management units "may be required to develop and implement a monitoring program in accordance with Article 5 of this subchapter," but were not required to.

It is evident that Board staff mistakenly sent its April 2, 1985 form letter to Apollo this letter stating that Apollo "was required" to submit a groundwater monitoring program. Considering that implementation of the revised regulations represented a major resource commitment by all of the regional boards, and Board staff, in the interest of implementing the groundwater monitoring portion of the regulations in the short amount of time available (the groundwater monitoring programs were required by the regulations to be submitted by May 28, 1985), likely sent this form letter to all sites in the Region that *appeared to be covered under the new regulations* out of an abundance of caution. The Board's Apollo file does not contain any information to indicate whether, after Apollo notified

Board staff in its letter dated April 26, 1985 that the pond was no longer in use, Board staff realized the pond was not an *existing* waste management unit at that time and for that reason did not pursue submittal of a groundwater monitoring program after that time. There is no basis to assume anything to the contrary. In any event, the Subchapter 15 regulations did not require that a groundwater monitoring program be submitted, and the fact that Board staff did not pursue submittal of a monitoring program was entirely consistent with the revised Subchapter 15 regulations.

Goodrich asserts that Board staff did not provide for proper closure of the pond pursuant to the revised Subchapter 15 regulations. However, the revised Subchapter 15 regulations were clear in that the pond was not required to be closed pursuant to Subchapter 15.

Section 2550 (a) of the 1984 amendments includes the General Closure Requirements and states, in part:

> Partial or final closure of *new and existing* classified waste management units shall be in compliance with the provisions of this article. (emphasis supplied)

The pond was neither a "new" waste management unit nor an "existing classified" waste management unit. In fact, the pond was neither an "existing" waste management unit, as explained above, nor a "classified" waste management unit. There were no closure requirements in the revised Subchapter 15 regulations for waste management units that were not either "new" or "existing classified" waste management units. Therefore, the closure requirements of the revised Subchapter 15 regulations were not applicable to the pond.

Section 2510 (d), above, makes it clear that when the revised regulations became effective, classified and unclassified waste management units both

existed, by stating "This includes disposal sites classified under previous regulations and unclassified waste management units."

Article 10 of the 1984 amendments (Definitions) states:

> Classified waste management unit" means a waste management unit that has been classified by a regional board according to the provisions of Article 3 of this subchapter.

The pond was not a *classified* waste management unit; it was an *unclassified* waste management unit. The Regional Board's Apollo case file is quite clear that the Regional Board never classified the wastes discharged to the pond nor classified the waste management unit itself, and was never required to do so. The Regional Boards were not required to classify wastes or waste management units until the November 1984 revisions required them to do so, and the revisions only required classification for *existing* and *new* units, not *inactive* units, such as the McLaughlin Pit. Even *existing* units were not required to be reclassified by the revised Subchapter 15 regulation until five years from the effective date of the regulations [Section 2591 (c)], which would have been November 1989. Also, since the pond was neither a "new" waste management unit or an "existing classified" waste management unit, the closure requirements of the revised Subchapter 15 regulations were never applicable to the pond.

III. The evidence shows that the staff properly performed its duties with respect to the Pit, including applying the correct regulations in effect at the time and properly classifying the site, its use and contents.

Goodrich claims that the Regional Board staff failed to address so called, "repeated violations" at the Pit. To support its erroneous claims, Goodrich refers to documents located in the Apollo file and leaps to conclusions that have no support in law or fact. For example, Goodrich cites several letters that the Staff sent to Apollo and inspection reports to the effect that Apollo had failed to submit quarterly self monitoring reports that were required to be submitted in

accordance with Apollo's WDRs. In each instance, there is no record that a follow-up letter was sent. Goodrich would have one believe that this is an indication that no follow-up action was taken. The more plausible explanation is that Board staff was obviously performing consistent compliance review of this site, as evidenced by the several letters sent to Apollo regarding different instances of their failure to submit quarterly self monitoring reports. If the reports were not submitted in response to the letters or inspections, or if those reports were not in order or contained information that indicated there were violations or threatened violations of the WDRs, Board staff would likely have followed up as necessary with Apollo, as they did when the quarterly monitoring reports were not submitted. There is no evidence that any of these follow up notifications had to be made. Contrary to Goodrich's claim that that "...the Regional Board took no action to resolve the violations...," Board staff sent appropriate administrative enforcement letters in response to those reporting violations and there is nothing in the evidence to indicate that any other further actions were necessary.

In another example, Goodrich claims that there was a freeboard violation after the Board adopted revised waste discharge requirements, Order 78-96, for Apollo on May 12, 1978. However, Order 78-96 prohibited waste discharges to the pond if there was less than 12 inches of freeboard. Goodrich presents no evidence that a discharge of wastes to the pond occurred when there was less than 12 inches of freeboard. There is no evidence that there were violations of the freeboard requirement.

Goodrich also notes in this section that during an inspection on March 3, 1983, Mr. Berchtold observed an overflow of the pond. Mr. Berchtold estimated on his inspection report prepared at the time that the overflow was 5 gallons. Goodrich claims the rainfall that occurred on that day and the days leading up to the inspection, "...make his estimate of only 5 gallons of overflow highly dubious." Goodrich then states that "And despite these serious violations, the only "recommendation" in the contemporaneously prepared report was to "send letter

confirming inspection"" (Goodrich erroneously referred to the lack of freeboard as a violation, which it was not). A letter was, in fact, sent. Goodrich implies that Mr. Berchtold's recommendation and follow up were not sufficient. However, Mr. Berchtold's inspection report also states that Apollo had called a contractor to pump the pond out, that Apollo stated no waste had been discharged to the pond for the two weeks prior to the inspection and heavy rainfall, and that the freeboard the previous day was 6 inches. The next day, the contractor pumped 20,000 gallons of waste from the pond, demonstrating a successful outcome to Mr. Berchtold's inspection. Goodrich's contention that Mr. Berchtold's estimate of 5 gallons of overflow was "highly dubious" is speculation by Goodrich. Clearly, the best estimate of the overflow is what was reported by Mr. Berchtold at the time based on personal observation, not Goodrich's mere speculation,

Without any basis whatsoever, Goodrich asserts that the staff failed to take steps to prevent waste material from discharging from the Pit. The record, however, demonstrates that at all times the Board staff took reasonable, appropriate actions when violations occurred. Goodrich fails to explain how the act of Apollo failing to submit self monitoring reports on occasion would have resulted in discharges from the Pit, there were no known freeboard violations to act on, and the action taken for the estimated 5-gallon overflow that occurred was appropriate.

The Dischargers claim that Apollo discharged 3,000 gallons per day of fireworks manufacturing waste to the Pit, which only had a capacity of 12,000 gallons per day (Goodrich, page 81, lines 17-19; Pyro Spectaculars, page 55, lines 19-23; page 56, 23-27). Goodrich implies that far more wastes were being discharged to the Pit than there was capacity available. *However, there is no evidence showing how much waste was actually discharged to the pit on a daily basis* (Regional Board records show that the file containing the monitoring reports was likely destroyed in December 1993 in accordance with the Regional Board's Records Retention Schedule that was in effect at that time). First, there is no

evidence that any liquid waste was ever discharged to the Pit. The pit was constructed to receive solid wastes, such as waste fireworks, powder and aerial shells. The evidence does show that water was added to the Pit to submerge these solid wastes to mitigate their explosive potential. It is reasonable to conclude that the amount of solid waste discharged to the Pit would likely have been reported by pounds or cubic feet, not gallons, which is a unit of measure that is usually used to report liquid. Therefore, it is likely that the maximum discharge of 3,000 gallons per day listed in Apollo's December 30, 1977 report of waste discharge would have been the maximum volume of water that would have been discharged to the Pit on any one day to submerge the solid waste in the Pit. For example, if the pit was dry, adding 3,000 gallons of water would have been enough provide one foot of liquid in the Pit.

Goodrich persistently refers to the liquid in the pond as a Class I hazardous waste. The term "Class I hazardous waste" has a very broad definition, and the use of this term by the Dischargers to describe the liquid in the pond gives the *erroneous impression* that the liquid should have been considered by Board staff at the time, and others, as a liquid waste that posed a significant threat to water quality or human health. Actually, the evidence is clear in that the wastes discharged to the pond were described as K044 wastes, which identified the waste as hazardous only because of its *explosive* potential. As noted above, the wastes were submerged in water to mitigate their explosive potential. There is no evidence that shows the wastes were considered hazardous for any other reason. This is consistent with the Regional Board's case file for Apollo which shows that the concern regarding the waste in the pit was always its explosive potential.

Goodrich compounds its exaggeration by referring to the pond as a "Class I hazardous waste disposal site" in an apparent attempt to incorrectly *dramatize* the regulatory status of the pond at the time, and to infer that the Regional Board should have been doing something different with the pond. However, the site

was never classified by the Regional Board as a Class I site, was not regulated as a Class I site, and there is no indication that it should have been classified or regulated as a Class I site.

In fact, the terms "Class I Hazardous Waste Unit" and "Class I hazardous wastes" did not exist in Subchapter 15 until amendments were made to Subchapter 15 in November 1984. Using these terms to describe the Pit and the wastes discharged to the Pit during that time period is inappropriate, erroneous and factually incorrect.

The Subchapter 15 regulations that were in effect when Order No. 78-96 was adopted and when wastes were last discharged to the Pit, established a disposal site and waste classification system on a statewide basis. The classes of disposal sites were Class I, Limited Class I, Class II-I, Class II-2 and Class III. The classes of wastes were Group 1, Group 2 and Group 3.

Section 2510 of the Subchapter 15 regulations that were in effect when Order No. 78-96 was adopted defined a Class I disposal site as follows: "Class I disposal sites are those at which complete protection is provided for all time for the quality of ground and surface waters from all wastes deposited therein and against hazard to public health and wildlife resources." Section 2510 also included, in part, the following criteria that must be met to qualify a site as Class I:

- "Geological conditions are *naturally* capable of preventing *vertical* hydraulic continuity between liquids and gases emanating from the waste in the site and usable surface or groundwaters" (Italics added)
- "Geologic conditions are *naturally* capable of preventing *lateral* hydraulic continuity…, or the disposal area has been modified to achieve such capability." (Italics added)

The December 1978 report prepared by the SWRCB for statewide distribution of general guidelines and minimum standards for waste disposal to land, states that, for a Class I site, "Artificial barriers may be used for the control of lateral waste movement only. Usable groundwater may underlie the site, but only under extreme cases where *natural* geologic conditions prevent movement of the wastes to the water and provide protection for the active life of the site." (Italics added)

Section 2511 of Subchapter 15 defined a Class II-I disposal site as follows: "Class II-I sites are those overlying usable groundwater and geologic conditions are either naturally capable of preventing lateral and vertical hydraulic continuity between liquid and gases emanating from the waste in the site and usable surface or groundwaters, *or the disposal area has been modified to achieve such capability*." (Italics added)

The December 1978 report prepared by the SWRCB for statewide distribution of general guidelines and minimum standards for waste disposal to land, goes on to state that, for a Class II-I site, "These sites may overlie or may be adjacent to usable groundwater. Artificial barriers may be used for both vertical and lateral waste confinement in the absence of natural conditions. Group II and Group III wastes can be accepted and under special conditions, certain Group I materials may be accepted."

Section 2532 stated "The disposal of certain Group I wastes may be allowed in a Class II-I site by a regional board when, in the judgment of the board, such disposal will not unreasonably affect water quality. Such restricted disposal of specific Group I wastes shall be subject to terms and conditions considered appropriate by the regional board."

The July 1980 report prepared by the SWRCB for statewide distribution of general guidelines and minimum standards for waste disposal to land, in

describing a Class II-I site, states "This site classification is also applicable to disposal areas utilizing artificial barriers (impermeable clay with leachate collection systems monitoring or double rubber or plastic liners with collection drains and sumps between the layers) in ponds used for the containment and evaporation of brines and chemicals.

Section 2520 of the Subchapter 15 regulations that were in effect when Order No. 78-96 was adopted and when wastes were last discharged to the pit, defined a Group I waste, in part, as:

> "1. Brines from ...industrial processes...
>
> 2. Other toxic or hazardous fluids from industrial operations such as ...chemicals..."

There is no evidence in the Regional Board's file for Apollo or in Orders 71-39 and No. 78-96 that the Pit was ever classified by the Regional Board. However, it is clear that, if it had been classified, it would have been classified as a Class II-I site and not a Class I site. In any event, using the terms "Class I Hazardous Waste Unit" and "Class I hazardous wastes" to describe the Pit under the Subchapter regulations that were in effect when the Pit was operating is inappropriate.

THE REGIONAL BOARD'S MISSION IS TO PROTECT THE WATERS OF THE STATE

The Regional Board Advocacy Team's motivation in pursuing the proposed CAO is simple: to seek investigation and remediation of the perchlorate discharges by legally responsible parties. Water Code Section 13000 provides in part:

> The Legislature further finds and declares that the health, safety and welfare of the people of the state requires that there be a statewide program for the control of the quality of all the waters of the state; that the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation originating inside or outside the boundaries of the state...

It is implementation of the Regional Board's mission and the Legislative Intent that motivates the Advocacy Staff to move forward with the proposed CAO.

As demonstrated herein, Goodrich's factual and legal arguments concerning the merits of the CAO are without merit. The Advocacy Team has demonstrated by substantial evidence that Section 13304 requires Goodrich to investigate and remediate its discharges of perchlorate and TCE. Moreover, Goodrich has set itself apart from the other named dischargers by accusing the Regional Board staff--based on nothing more than speculation--of mismanaging the McLaughlin Pit activities and failing to apply the proper regulations. As shown above, there is no evidentiary or legal support for those claims. Goodrich has also distinguished itself by submitting claims that members of the Advocacy Staff of inappropriate motivations in pursuing Goodrich.

For example, Goodrich claims that members of the Advocacy Team have pursued the CAO as to Goodrich "despite fact and scientific evidence that exonerates Goodrich." However, the Advocacy Staff is unaware of either "fact or scientific evidence" that exonerates Goodrich. To the contrary, the evidence supports the conclusion that Goodrich discharged perchlorate and TCE. Goodrich has failed to provide either fact or scientific evidence satisfactory to

exonerate Goodrich. Goodrich continues to focus on providing shiny baubles intended to misdirect attention away from the case against Goodrich identified in the Cleanup and Abatement Order, in which a logical progression of evidence is presented documenting why it is appropriate for Goodrich to be named as a responsible party in this matter.

Goodrich further claims that Regional Board staff made efforts to "deliberately overlook key evidence." While it is not immediately obvious, it appears that the Goodrich claims relate to evidence about others who discharged at the subject site, as well as claims about "key evidence" that supposedly would have "exonerated" Goodrich. The Goodrich arguments appear to suggest that, if there are others who discharged at the site, this somehow "exonerates" Goodrich. This type of specious logic fails, in that other viable entities that discharged at the site, while not "exonerating" Goodrich, instead provide Goodrich with companion responsible parties for the investigation and cleanup of the site.

Goodrich claims that Thibeault and Berchtold deliberately avoided determining whether exculpatory evidence existed against Goodrich. Goodrich does not clearly explain this claim, making it difficult to refute. As members of the Advocacy Team, Thibeault and Berchtold have spent many long hours over the last five years considering all the available evidence in this mater. Suffice it to say that the claim is absurd and without basis.

Goodrich next accuses Thibeault and Berchtold of misstating facts, especially in a 2002 letter to State Senator Soto and a 2002 email to the Regional Board

members with respect to the contributions of fireworks manufacturers. However, as discussed below, the basis of this claim is apparently information generated subsequent to 2002, although the accusation in the brief is constructed to appear as though that data were known at the time the subject Soto letter and email to the Regional Board were drafted. Goodrich misstates deposition testimony and misuses the time history of events to support its allegation. It ignores any differences in the progress of the Regional Board staff's investigations and state of knowledge in 2002, compared to what has been learned by 2007.

The Goodrich brief makes the claim that certain information was known by Regional Board staff in 2002, and if this were indeed true as they claim, this would mean that Regional Board Staff misrepresented information to both Senator Soto and the Regional Board Members. The basis of this argument is a claim by Goodrich that Regional Board Staff were, somehow, already privy in 2002 to the data concerning the perchlorate in the vadose zone under the McLaughlin Pit (this was some four years prior to that data actually being generated by the joint investigation of Emhart/PSI in 2006). It is true that the previously referenced environmental audit by Geo-Logic Associates, on behalf of West Valley Water District, did identify in 2002 that fireworks companies had discharged perchlorate wastes into McLaughlin Pit, but Regional Board Staff did not ignore that report in the 2002 letter to Senator Soto, as Goodrich claims. Instead, the Staff response in the Soto letter reads, as follows, "We have not yet pursued additional detailed investigations to correlate operations at Red Devil and Broco/Denova to perchlorate contamination. This is because the ***preliminary information*** we have indicates that these facilities may not be likely

sources. However, we will attempt to obtain additional information on these sites." (emphasis supplied) (June 6, 2002 letter to Senator Soto, Page 5, paragraph 2) This statement to Senator Soto clearly demonstrates that the investigation with respect to the fireworks companies was not completed in 2002.

Goodrich asserts that Regional Board files controvert a statement made in the June 2, 2002 letter to Senator Soto, and as such, this makes Thibeault's statement "reckless." The file to which they refer is for Apollo Manufacturing, which had been in the State Archives since 1993, in conformance with the Regional Board's Records Retention Schedule in effect at that time. Goodrich is therefore correct about this file not having been reviewed during the less than two weeks that Staff had to respond to the Soto letter. This file was later retrieved from State Archives, consistent with the statement in the letter to Soto that investigation of the fireworks companies would continue.

Goodrich states, "In his email to the Regional Board Members, Thibeault stated that further investigation of the real sources would 'muddy the waters and possibly give Goodrich or Kwikset a reason to delay…'." This is an intentional mischaracterization of Thibeault's email, in that Goodrich added the words, "…the real sources…" in describing Mr. Thibeault's statement. As opposed to what Goodrich implies in their brief, the "muddy the waters" statement extracted from the email refers to an anonymous witness who indicated that he could provide information on additional waste disposal activities at the site. The anonymous witness testimony was later investigated (including the use of backhoe excavations in an attempt to locate drums that were claimed to have

been buried), and this was one of many leads that staff would investigate in the effort to identify all sources of perchlorate from the site, in addition to the contributions made by Goodrich and Emhart.

Goodrich further claims that Thibeault failed to further investigate "the true source: of perchlorate in the basin" thus failing to discover the persons responsible for the McLaughlin Pit, which it alleges is the only confirmed source. This, according to Goodrich, was done in response to Senator Soto's "threats." This claim is an example of Goodrich's disregard for either accuracy or temporal consistency. This Goodrich statement is inaccurate in that it ignores testimony and evidence to the contrary. The letter to Senator Soto clearly indicates that investigations into additional sources for the perchlorate will be undertaken by Staff. Goodrich seems to be under the impression that moving against Goodrich and Kwikset in 2002 meant that all other potential sources of perchlorate would be ignored. The subject 2002 letter to Senator Soto, Staff testimony at the 2002 cleanup and abatement order hearing and the issuance of 23 investigation orders to potential dischargers (21 of which were to companies other than Goodrich or Kwikset), all demonstrate that the misleading Goodrich statement is simply not truthful.

With respect to the repeated Goodrich assertion about McLaughlin Pit being the only confirmed source of perchlorate at the 160-Acre Parcel there is no doubt that the McLaughlin Pit is a source of perchlorate at the site, but there is also no doubt that there are other sources. As documented in the findings of the Proposed Amended CAO perchlorate and TCE contamination is present in the

groundwater in locations that are not influenced by the McLaughlin Pit. Scientifically, McLaughlin Pit could not have been the source of this perchlorate and TCE. Further, soil sampling throughout the vadose zone below the McLaughlin Pit demonstrates that the McLaughlin Pit is not a source of TCE. Obviously, other sources of contamination exist on the 160-acre site.

Goodrich asserts that, with respect to a September 1978 Regional Board Staff memo concerning a Pyrotronics violation, "Mr. Berchtold does not recall asking anyone to follow up on this violation." Goodrich also noted that Mr. Berchtold did not know whether any penalty was assessed against Pyrotronics in response to failure to submit monitoring reports, as noted in a May 6, 1980, inspection report. Goodrich fails to grasp the fact that Mr. Berchtold did not join the Santa Ana Regional Water Board staff until November 1981, well after these violations occurred.

Finally, Goodrich makes the following statement, "Despite the evidence pointing to the real culprits, neither Thibeault nor Berchtold ever once directed the Regional Board's investigative team to take action to stop the repeated violations of the WDRs; violations that resulted in gross contamination of the groundwater. Thibeault's and Berchtold's silence speaks volumes about their concern over the Regional Board staff's complicity in the perchlorate contamination that resulted from the McLaughlin Pit", despite assertedly having had several opportunities to act. Those opportunities, however, as stated by Goodrich were in

1973, 1976, 1978, 1980, 1981 and 1983. It has already been demonstrated herein that the 1983 inspection and follow-up resulted in a successful response to the 5 gallon overflow from the Pit. However, it is clear that Thibeault's and Berchtold's purported failure to address the other instances might more accurately be attributed to the fact that neither of them was even working for the Santa Ana Regional Water Board at the time of the identified events.

CONCLUSION

There is no doubt that this is an uncommon case in many respects. First, it is unusual for the State Board to hear a CAO proceeding in the first instance. It differs from other cases in that it involves discharge activities that go back some 50 years in time with unfortunate legacy impacts that must be addressed. Next, it is unusual in that it has involved months of aggressive discovery by the dischargers by means of document requests and deposition of many Advocacy Team witnesses. The Advocacy Team doubts that there is any other example of such extensive discovery in the history of the water boards. This case is also unusual in its duration, having commenced some five years ago with several earlier efforts by the various dischargers to derail the process, by means of several petitions to the State Water Board and a trail of court proceedings, that has led to issuance of the Proposed Amended CAO. It is unusual in that at least one of the parties has gone far beyond defending on the merits, and now attempts to defeat the CAO by, in an effort to intimidate, accusing the prosecutor (the Advocacy Team) of various wrongs.

Despite these distinctions, the case at its core is not different from any other case in which the regional boards (upheld by the State Water Board) have routinely adopted CAOs requiring the responsible parties to investigate and abate the effects of the discharge. Several examples of these cases are cited herein in State Water Board precedential decisions. The Advocacy Staff has presented by substantial evidence all elements necessary to issue a Section 13304 (and Section 13267) order against each of the named parties. It is time to bring the matter to a close and to issue an order requiring that these parties step up and perform their legal responsibility to investigate and cleanup the discharges they have caused.

The dischargers have presented extensive argument and documentation in challenging the CAO. They have hired "experts" who challenge the findings contained in the CAO. The common theme in the dischargers' briefs and their experts' opinions is "we couldn't have done it." But that theme can only be supported only by *selective consideration* of the facts concerning the handling of perchlorate and TCE, rainfall and other water use data, soil information, and infiltration rates. Despite the dischargers' claims and their experts' "opinions," the perchlorate and TCE are IN FACT present in the groundwater downgradient from the dischargers' former and present facilities. There is simply no other plausible explanation for the distribution of contamination. The dischargers' and their experts' "opinions" defy logic and common sense.

For all these reasons, the Advocacy Staff urges the Hearing Officer to recommend that the State Water Board to adopt Proposed Amended Cleanup and Abatement Order No. R8-2005-0053.