



Ad Hoc Committee On Clean Water



City Managers Office
City of Santa Rosa
Santa Rosa, Ca.

RECEIVED

OCT 07 1996

October 1, 1996

Re: Long-term wastewater treatment and disposal:

CITY OF SANTA ROSA
CITY MANAGER'S OFFICE**Problems:**

- Inadequate review of Public Health Risk

47 PAGES

Solutions:

- Removing pathogens at the source – alternative plumbing, waterless toilets
- Tree irrigation, subsurface emitters
- Water conservation
- Disinfection alternative to chlorine

Introduction:

The goal of the City of Santa Rosa is to create a wastewater system that is weather independent. 001
The major premise is that such a goal is attainable. It is not. And we continue to spend billions trying.

Rather than attempt to be independent of the California weather system, which is distinctly different from the rest of the country, we should be learning to adapt to California's "Mediterranean climate".

A cultural change is needed. Each one of us needs to be persuaded that there is nothing which gives us the right to pollute water and to discharge wastewater without regard to rainfall and the amount of water flowing in our rivers and streams. Nothing requires transport of waste in water. We are wasting millions attempting to defy nature, attempting to deny its restrictions, and misusing a most precious resource – water.

Currently, the Health Department permits the unsanitary practice of defecation into drinking water. Santa Rosa has the responsibility of treating that polluted water and disposes of the treated product via discharge into the Laguna and its tributaries or by agricultural irrigation. However, "agricultural irrigation" is narrowly defined. The particular crops that have been chosen are ones that require irrigation during the "summer season". Therefore, "irrigation" as practiced, requires dams and reservoirs or storage ponds to hold water until the "summer" months when these particular crops can accept watering.

Alternatives to these scenarios are to:

- Investigate waterless toilets --composting and incinerating
- Change crops (consider irrigating a water-loving Native, namely Redwoods).
- Decrease dramatically, on an individual basis, the amount of wastewater created (conservation), especially in response to weather conditions, cultural change rather than a costly engineering solution.

These options have not been treated adequately in the EIR.

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001 (cont.)

The single most important concern is Public Health risk. For years, proponents of increased river discharge have argued that Santa Rosa's wastewater poses no health risk and is safe for all uses. To the contrary, residents especially along the Laguna, Santa Rosa Creek and the Russian River have expressed concern regarding pathogens and potential well contamination. **This EIR should have provided the definitive answer as to the quality of Santa Rosa's wastewater. It does not. In fact we have good reason to suspect that there are serious biological contaminants that pose health risks that are being ignored. There are real problems that need study. Unfortunately, so much money has been wasted on pseudo-science that the public is fed up with so-called "studies" and wants to throw the corrupted baby out with the wastewater.**

➤ **Public health issues:**

- | | |
|--|----------------|
| 1. It appears that only one sample was taken of only one wastewater storage pond (Delta) during the period of record, 1991-1995 to test for Salmonella and Legionella. Is that correct? That is obviously inadequate. | 002 |
| 2. Only four samples were taken of fresh effluent between 1991-1995 to test for Giardia, Legionella, Shigella, Salmonella, Cryptosporidium and Heterotrophic bacteria. Is that correct? Also inadequate. | 003 |
| 3. Why wasn't that one Delta Pond sample tested for Cryptosporidium and Giardia like the other samples? If it was, why weren't the results reported in the EIR? | 004 |
| 4. The Delta Pond test results showed a coliform level of 280! Why wasn't a second sample taken immediately? Regulations require that you show no more than 23 coliform per ML in 30 days. Why was there no further testing in the 30 day period? If there was, why wasn't it reported in the EIR? | 005 |
| 5. The EIR proclaims that E. coli is an indicator of fecal contamination and possible presence of pathogens in water. What steps have been taken to protect the public from exposure to pathogens considering that Delta Pond effluent, which tested high in E. coli, is used for agricultural irrigation along River Road and used for urban irrigation in the city of Santa Rosa? | 006 |
| 6. Why no analysis of cyclospora and E. coli 0157? | 007 |
| 7. What steps were taken during the outbreaks of cyclospora (US) and E.coli (Seattle and Japan) to determine whether there was incidence of cyclospora locally? | 008 |
| 8. Have the hazards of using stored Delta Pond wastewater for irrigation of food crops and watering livestock been addressed? What about the hazards of spray irrigating Delta Pond wastewater and the potential hazard of spreading contaminated aerosols? | 009
010 |
| 9. Which food crops are presently irrigated with wastewater and what ponds does the wastewater come from? Which commercial growers are using Santa Rosa wastewater, how often and to what extent? | 011 012
013 |
| 10. The EIR states that the Maximum Contaminant Levels established for chlorinated hydrocarbons was set prior to the discovery of the estrogen mimicry property of chlorinated hydrocarbons and their potential for major damage to the endocrine systems of aquatic and terrestrial life. Since you do not know the smallest amount of these chemicals that can disrupt reproduction and reproductive organs, how do you propose to protect the public from these chlorine compounds that are in Santa Rosa's wastewater? | 014 |

11. Are any "organic" farms irrigating with Santa Rosa wastewater? Which ones are using wastewater from storage ponds and which take wastewater directly from the treatment plant? 015
12. Your economic analysis suggests that irrigating with wastewater would enhance and increase the value of agricultural production. The EIR does not address possible public rejection of wastewater irrigation of food crops and subsequent decrease in value. 016
13. Wastewater from Delta Pond is discharged into the Russian River and the Laguna. What is Santa Rosa going to do considering the high E. coli count in Delta Pond? Is the Regional Water Quality Control Board allowing you to continue to discharge from Delta Pond? Are they requiring additional testing? 017 018
14. Why not de-chlorinate the wastewater destined for wastewater storage ponds? Which chlorinated hydrocarbons do you test the ponds for and how often? 019 020
- > Study of waterless toilets should be included in the EIR. 021
Significant advances have been made in this area and Santa Rosa would be applauded for taking a positive step in this direction. In 50 years, people will no doubt look back in amazement at our current practice of defecating in potable water only to spend millions using dangerous chemicals trying to get the bacteria out!
- > Irrigation of redwoods should be studied as well as underground emitters. 022
What is the impact of wastewater irrigation on Rohnert Park's Golf Courses? Most people do not realize how many thousands of trees grow on the 2 hundred-acre courses. How many redwoods are there? What is their growth rate? Do they show any sign of disease or other problems? I am told there are rabbits, foxes and pheasants at Mountain Shadows and counted 500 mud hens and over 500 Canadian geese congregating on the tenth hole water hazard along with scores of mallards, domestic geese and ducks. Are any long-term problems showing up in the bird population? 023
1. Consider expanding irrigation of redwoods and the combination of short grass, redwoods and small ponds on city-owned land. 024
2. Consider planting redwoods around Delta, Meadowlane or any of the other ponds.
- > Water conservation 025
With waterless toilets, the amount of nitrates as well as pathogens in the wastewater stream would be dramatically reduced. Since permitted contaminant levels are based on dilution, water could be conserved dramatically without raising the concentration of contaminants. An educational program should be started informing people about the need to curtail water use especially during certain weather scenarios.
- > Ultraviolet 026
Santa Rosa is to be commended for trying to reduce the amount of chlorine used by the system. Hopefully, ultraviolet for disinfection will prove beneficial and cost-effective. This procedure must be monitored carefully for "unintended consequences". The best way to deal with pathogens is not to put them in water in the first place.

Ann Maurice
Ann Maurice



Regional Water Quality Control Board
Skylane Blvd
Santa Rosa, Ca.

Ad Hoc Committee On Clean Water



Sept. 29, 1996

Dear Members of the Regional Board,

Certain issues in Santa Rosa's DEIR on Wastewater have come to my attention:

027

1. The one sample of effluent from Delta Pond showed a value of E. coli 100 times the 2.2 MPN per L set by the Department of Health. Wastewater is discharged from Delta Pond into Santa Rosa Creek, destined for the Laguna and the Russian River. Has there been other testing? If so, why wasn't it reported in the EIR? If other testing was reported in the EIR, what section is it in and why wasn't it reported in the section on Human Health risk?

2. I see no evidence of testing Delta Pond for trihalomethanes and other chlorinated hydrocarbons even though chlorinated water is sent to Delta Pond and distributed for irrigation.

028

3. I am concerned that the wastewater that is spray irrigated along Occidental Road and Guerneville Road may contain harmful aerosols that may be even more dangerous inhaled than by ingestion because contaminants can move directly into the blood stream in the lungs. These roads are highly traveled.

029

4. Droplets travel for miles and hang in the breathable air in even higher concentration during certain weather conditions like temperature inversions. Water destined for spray irrigation must be tested for micro-organisms, organic compounds and any chemicals or other substances that can travel in aerosol form.

030

Has any of this testing been done? If not why is Santa Rosa being allowed to continue irrigating? If these matters have not been investigated, the spraying should be stopped at once pending investigation.

031

There has been testimony that Sonoma County has an unusually high cancer rate. Is this true? Please provide statistics regarding cancer, especially breast, prostate, testicular and uterine, for Sonoma County.

032

Since these are serious public health matters, an urgent reply would be greatly appreciated.

Sincerely,

Ann Maurice

cc. Santa Rosa

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Ad Hoc Committee On Clean Water



Twelve million dollars to produce an Environmental Impact Report! Copies cost \$1600 for 17 volumes totalling 8000 pages.

For **\$12 MILLION** this should be a "magnum opus" answering every conceivable question. Unfortunately, one of the most serious concerns, human health risk from exposure to reclaimed water is treated so inadequately it should be an embarrassment to the City in a \$12 million dollar document.

Most people fear continued contamination of the Russian River, local wells, the groundwater, and the aquifer. The quality of the wastewater and the reliability of the sewage plant are the main questions.

What assurances does the \$12 million document give us regarding biological and other organic contamination? 0 3 3

• They took **one sample** from Delta Pond on **one day** in November 1994 and four samples from the plant on each of four days and drew conclusions regarding **lack of health risk** from biological components (giardia, salmonella, legionella and cryptosporidium) from that data! They did not even discuss cyclospora and E. coli 0157! That is **beyond ridiculous!** 0 3 4

• The discussion of **coliform bacteria** references **10 year old documents** ignoring completely the outbreak of a "new" strain of pathogenic E. coli 0157 in Seattle and the recent epidemic in Osaka affecting **10,000 people!** 0 3 5

• The utilities department **does not appear to be testing** for viruses, cyclospora, cryptosporidium etc. at present. And, there does not appear to be **any testing** of the effluent in the **storage ponds.** 0 3 6

• They admit they do not know the extent of damage and disruption to our endocrine systems caused by organo-chlorines in the wastewater, and have no standard by which to **assess risk.** 0 3 7

• The one sample of wastewater taken from Delta Pond had a coliform count **over 100 times the maximum allowed by the Department of Health Services** for spray irrigation. The "heterotrophic" bacteria count of Delta Pond water was **3100 colonies per mL.** (What are heterotrophic" bacteria? They are indicators of the overall bacteria count in water and help assess the cleanliness of the distribution lines and the effectiveness of the disinfection process. "Data on human health effects resulting from exposure to these organisms following ingestion or inhalation of aerosols is **lacking.**" DEIR) 0 3 8

So what do we have? The consultants made assurances based on a piddling five samples taken on only **five days** in four years: assurances regarding the satisfactory quality of the wastewater as regards biological contamination even though the **one sample from Delta Pond showed extremely high bacteria counts.** The wastewater may have been treated and come out of the 0 3 9

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plant with few detectable bacteria, but after residing in the ponds, the organisms either came back to life or were picked up and carried in the distribution lines and multiplied, or there is some new source of contamination, or all of the above! We cannot ignore this. The quality of the wastewater in the storage ponds must concern us because wastewater flows from the storage ponds to farms for irrigation and we can breathe in dangerous aerosols as we drive past wastewater irrigation fields around the County.

039 (cont.)

- According to the DEIR, between 1991 and 1995, the City of Santa Rosa examined its wastewater for giardia, cryptosporidium, legionella and salmonella only four times. That's four days out of 1460. And, a minute, infinitesimal amount of water was analyzed in comparison to the billions of gallons discharged, irrigated and consumed by livestock during that four year period. It is an insult to anyone trying to develop sound municipal policies regarding disposal of wastewater to have tested so little especially considering the exorbitant cost of this study.

040

The data the City does present shows Delta storage pond wastewater has a fecal coliform bacteria count 100 times the maximum allowed to be considered "tertiary". Therefore it is a travesty, a joke, a distortion, and preposterous to claim that they are discharging or irrigating with "tertiary water" if any of that water comes from Delta Pond. The Delta Pond Water test results exceed by more than 100 times the maximum coliform level allowed more than once in any 30-day period by the Department of Health Services for water used for spray irrigation!

041

Wastewater from Delta pond should be considered unsuitable for spray irrigation and unsuitable for use on food crops pending further investigation. The inhalation of contaminants poses as great or greater risk as ingestion. Think of that as you drive past wastewater irrigation fields. What about other storage ponds? Have any of the other ponds been tested?

042

043

How many farms are irrigating their produce with Santa Rosa effluent and selling their produce as "organic"? Isn't there at least one?

044

What can we do? Attack the problem at its core.

045

- Experiment on irrigating REDWOODS. Redwoods can utilize water and accept irrigation during the rainy season.

- Incinerating and/or composting toilets are the only long-term solution. We must treat our human bodily waste the same way we treat other dangerous toxins. Keep them out of the wastewater stream.

046

It is no longer feasible to continue our present sewer system. It is unreasonable to spend \$12 million on studies of waste disposal and disinfection and not one cent on studying irrigation of non-food crops or on removing the waste and bacteria from the water stream in the first place.

047

Sincerely



Ann Maurice



Ad Hoc Committee On Clean Water



**Important Santa Rosa Board of Public Utilities Meeting
Thursday, October 17th 1:30 PM City Council Chambers
100 Santa Rosa Ave**

!!!!UNBELIEVABLE but TRUE!!!!

***Demonstration projects for COMPOSTING TOILETS
and REDWOOD IRRIGATION will be on the BPU agenda.
They need your support!***

**Further expenditure on the controversial "Aquifer injection" will
also be considered.**

We don't need to spend millions more on that one!

**Your presence is needed. Please try to come!
(or mail or Fax us your comments and we'll present them for you)**

1. Composting and/or incinerating toilets have been discussed, developed, but little used over the last 20 years. At last, the Santa Rosa Utilities Department is considering a pilot project for alternative toilets. A growing number of technicians, Public Health officials and sanitary engineers as well as the general public believe that the flush toilet is outmoded, outdated and past due for an overhaul. We spend billions to flush our bacteria-laden waste for miles and then spend millions studying how to dispose of the treated effluent. Instead, why not see what a waterless commode has to offer?

Support Santa Rosa's starting a demonstration project so the Water Quality Board and the Public Health Department can evaluate waterless toilets along with the rest of us.

2. Why not irrigate redwoods with wastewater? Thousands are already being irrigated on the Rohnert Park Municipal Golf Courses. Why not add additional acreage in trees? Redwoods can be irrigated in the rainy season, that's the key! No need for additional storage ponds. No need for dams and reservoirs. Let's give it a try!

3. Santa Rosa will be deciding whether or not to spend millions more dollars on aquifer injection monitoring wells. We don't need to inject wastewater into the aquifer. We don't need to spend more money on this. It's a dead end. Let's stay positive and productive and avoid the risk of contaminating our groundwater.

Ann Maurice

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1996 Guide to Products & Services

**National Small Flows
Clearinghouse**

1-800-624-8301



Research—Technology Packages

Technical Evaluation of the Vehicle Loop Reactor Process Technology

A verticle loop reactor (VLR) is a treatment process similar to an oxidation ditch. The water in a VLR circulates in a verticle loop around the horizontal divider baffle that extends the entire width of the reactor and most of its length. The theory of the process is detailed in this document, as is oxygen transfer, diffusers, denitrification and phosphorus removal, deign criteria, reactor configuration, operation and maintenance requirements, and performance data. A comparison of the VLR system with other equivalent technologies is also included. (Engineer, researchers, operators.)

WWPCRE13/Photocopy-79 pp. - 1992..... \$11.35

Technology Packages

Series 1 Brochures: Land Treatment

This series consists of six brochures on alternative land treatment methods, including aquaculture, wetlands treatment, overland flow, rapid infiltration, large soil absorption systems, and silviculture. (Engineers, local officials.)

WWBRGN04/Brochure-14 pp. - 1983 \$2.05

Series 2 Brochures: Innovative/Alternative (I/A) Technologies

This series of four brochures deals with innovative and alternative technologies, including biological phosphorus removal, sequencing batch reactors, alternative wastewater collection systems, and intermittent sand filtration. (Engineers, local officials.)

WWBRGN05/Brochure-13 pp. - 1983 \$1.90

Series 3 Brochures: Ponds and Lagoons

This package consists of four brochures: wastewater stabilization ponds, nitrogen and pathogen removal, hydrograph controlled release lagoons, and wastewater treatment and disposal using total containment ponds. (Engineers, local officials.)

WWBRGN06/Brocure-8 pp. - 1985 \$1.15

Series 4 Brochures: Innovative/Alternative (I/A) Technologies

This package consists of five innovative and alternative technology brochures: intrachannel clarification, ultraviolet disinfection, rotating biological contactors, countercurrent aeration, and cold weather operation of conventional wastewater treatment facilities. (Engineers, local officials.)

WWBRGN07/Brocure-16 pp. - 1983	\$2.30
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Series 5 Brochures: Sludge Technologies

This package contains four sludge technology brochures: land application, composting, in-vessel composting, and vacuum-assisted sludge dewatering beds. (Engineers, local officials.)

WWBRGN08/Brochure-6 pp. - 1983 \$0.90

Alternative Toilets

This book lists addresses, telephone numbers, and product literature for manufacturers of alternative toilet systems such as composting, incinerating, low-flush, and portable toilets. Product brochures for 12 manufacturers are included. (Engineers, contractors/developers.)

WWBKGN09/Book-90 pp.: 1990.....\$12.95

Introductory Package on Sand Filters

This collection of articles provides an overview of sand filter use in wastewater treatment for those who cannot use conventional soil absorption systems. A case study, technology assessment, and cost comparisons are included. (Engineers, general public, local officials, state officials.)

WWPCGN29/Photocopy-151 pp. - 1990..... \$14.10

Municipal Wastewater Reuse: Selected Readings on Water Reuse

This manual describes successful projects and provides guidance to those considering or managing water reuse and reclamation projects. (Engineers, local officials, planners, managers, state officials, public health officials, operators.)

WWPCGN35/Photocopy-75 pp. - 1991..... \$10.80

Information Package on Ruck/Nitrification-Denitrification

This information package contains six articles concerning Ruck and denitrification systems. Various other articles that support these systems are included. (Engineers, researchers.)

WWPCGN38/Photocopy-182 pp. - 1991 \$26.15

Septic Tank Effluent Pump Pressure Sewer Systems: Information Package

This package contains general system characteristics, design information, performance data, operation and maintenance costs, and tips on septic characteristics and disposal alternatives for septic tank effluent pump systems. (Local officials, contractors/developers, engineers, planners, managers, general public.)

WWPCGN41/Photocopy-192 pp. - 1991.....\$27.60

Spray Irriga

This collection of general guidelines for the design and installation of wastewater treatment systems for industries are included.

**Constructed
Package**

This package relating to performance includes art house's new public, local state regula
WWPCGN5

Wastewater:

This helpful
works, prov
ment projec
information
officials, loc
WWPCGN5

Separation

This collect
distances at
groundwater
water moun
neers, state
planners, re
WWPCGN6

Septic Tank:

This update provide additional information on the house's management of the NSFC's data, and information from public systems. (C) researchers WWPCGN6



Ad Hoc Committee On Clean Water



Friday, September 27, 1996

To the Editor

*All We Are Saying Is Give Trees a Chance
Irrigate Redwoods with wastewater
 A 100% Solution for Zero Discharge*

This is the Redwood Empire. Plant thousands more Redwoods and irrigate them with wastewater. Redwoods are strong, beautiful solar-powered pumps that love water. Redwoods can be irrigated with wastewater during the rainy season. That's the key! Irrigating redwoods is safer than using wastewater on food crops, safer than injecting wastewater into the aquifer, safer than increasing discharge into the Russian River and less expensive than building huge reservoirs.

Thousands of redwoods are already being irrigated in Rohnert Park at Mountain Shadows where there is a surprising abundance of waterfowl. Thousands of Canada geese flying in formation and honking, splash-land to spend the night and feed with scores of mallards, killdeer, hundreds of mud hens, hundreds of rabbits, and even some foxes and pheasants! Rolling meadows of short grass, redwoods and small ponds. People love it, wildlife love it. We're already irrigating redwoods, we just need more of it.

Ann Maurice

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ILLNESS OUTBREAK PUZZLES OFFICIALS

Microbe Elusive as It Navigates
the Nation's Food Supply

By LAWRENCE K. ALTMAN

Federal officials are developing a crash program to test food and other items for an exotic microbe that is known or suspected to have made more than 1,000 people sick in 11 states. Investigators are also shifting the focus of their suspicions from strawberries to raspberries as the source of contamination.

The microbe, known as cyclospora, is a parasite that infects the intestine and can cause intense diarrhea, weight loss and fatigue. It has caused three previous outbreaks of disease in the United States, including one last year in Westchester County, but the ones that started this spring are by far the largest.

The epidemic is yet another in a long line of new and emerging infections like legionnaire's disease and AIDS that have struck this and other countries in recent years.

Despite warnings about such diseases, the current cyclospora outbreak has caught health officials by surprise. They say that parasites are rarely the cause of large food-borne outbreaks and that this is the first major national one in recent years. An outbreak of cryptosporidiosis in the Milwaukee water supply sickened 400,000 people in 1993.

This country's food supply is considered very safe. But Dr. Stephen M. Ostroff of the Centers for Disease Control and Prevention and other Federal officials said that the cyclospora outbreak "highlights the potential vulnerability" of the food supply when a crack appears in the safety walls that protect it.

Even with a crash program, tracking the route by which cyclospora is penetrating the food supply is proving hard because several factors make the parasite elusive.

One is that it takes a week for a person to become sick. Several more

Continued on Page 14, Column 1

Consumers Told To Wash Fruits

Health departments where cyclospora has been found are advising consumers to wash fruits and vegetables before eating them. The outbreak, which began in May, is the first of its kind because of the possibility of contamination by soil, manure or insecticides.

What health authorities mean by "washing" is removing any contaminants physically in a stream of clean, running, drinking water. Using soap or especially detergents is not recommended, as this merely adds another possible contaminant. Gentle scrubbing with a clean vegetable brush can help dislodge soil.

Health authorities believe, but have not documented, that the cyclospora organism stays on the surface of the skin if it is unbroken and undamaged, not in the flesh of any affected fruit. That is true of most other single-cell contaminants, both bacteria and parasites. Nevertheless, produce should be washed even if it is to be peeled before it is eaten.

This outbreak is believed to be the first major outbreak in many years of a food-borne parasite, as opposed to bacterial, disease.



A researcher at Cornell Medical Center in New York examines samples of strawberries, a potential source of an illness-causing parasite.

Illness Outbreak Leaves Puzzles for Officials

many that do are not adequately trained in how to detect it.

Little is known about cyclospora's life cycle, the ways it spreads, and whether birds or animals that feed on berries are involved. This means that experts have little idea how cyclospora reaches the berries, or whether humans are the only hosts.

Adding to the complexity of the medical detective work are the delays in recruiting Federal help to investigate the outbreaks. The C.D.C. can investigate outbreaks only if called on by state health departments. Only this week was the agency invited to send investigators to Texas and the District of Columbia. "The outbreaks were on-going before we were called in," said Bob Howard, of the C.D.C.

In many investigations of disease outbreaks, information obtained in the initial stages often turns out to be wrong. Epidemiologists are looking into the possibility that the initial warning against eating strawberries might have been premature.

On Thursday, the Texas Department of Health and Houston's health department filed an advisory. It stated that the R. applied eating fresh strawberries.

Another difficulty in the investigation is the nature of cyclospora. Food historians are the backbone of the epidemiologic investigations. But with cyclospora, the incubation period is about a week, longer than for many other food-borne infections. Additional days might pass before an infected individual seeks medical attention, and an accurate diagnosis is formed, and an accurate diagnosis is made. By then, many people have forgotten what they ate. Yet the food historians are the backbone of the epidemiologic investigations, and they may be less accurate than they

taken to prevent contaminating laboratories.

Officials said they were aware of the problems and intended to use the P.C.R. tests initially for screening purposes to suspect foods could undergo more standard tests.

Vice President Al Gore said recently that the Clinton Administration was stepping up its battle against infectious diseases. With scientists emphasizing the threat of emerging infections and the Government spending more money to protect the public, why had United States Public Health Service researchers not developed a test for cyclospora in foods earlier?

"We've been asking the same

A new suspect is under scrutiny in a food-borne disease.

question," said Mary Pendergast, a top official of the Food and Drug Administration, which has responsibility for the safety of produce. She and other Federal officials said that cyclospora had received a lower priority than other health problems and that it was unreasonable to assume that scientists could develop such tests only three years after identifying cyclospora as a parasite.

Investigation of the outbreaks has been further complicated by the medical novelty of cyclospora. Most doctors lack experience in diagnosing and treating cyclospora, if they have ever heard of it. Many laboratories do not test for cyclospora, and

Continued From Page 1

days can pass before cases are reported to public health authorities. That can leave investigators trying to identify contaminated food and trace its source with trails that have often gone cold and memories that are hazy.

Patients in some outbreaks have said they recall eating strawberries, but in investigations of more-recent outbreaks raspberries have emerged as prime suspects. It is not yet clear whether the disease shifted from one type of berry to the other, or whether it was in raspberries all along. It is also possible that other fruits are involved.

Health officials have not found cyclospora in any raw fruit. It might be that so few microbes are required to infect a person that they escape detection by current techniques.

Health officials are trying to rush into the field a sophisticated research technique known as polymerase chain reaction, or P.C.R., that could detect even a single microbe.

The Food and Drug Administration has asked six laboratories, four of its own, one at the C.D.C. in Atlanta and another at the National Health Department in the P.C.R. tests to detect cyclospora in food. The tests are being done on leftovers from implicated meals served in homes and restaurants and from random samples collected from stores, distributors and growers.

Testing began on Thursday. But in the rush, some experts expressed concern that the new tests might not be subjected to the usual rigorous scientific process. They also warned that P.C.R. is such a highly sensitive technology that great care must be

Ad Hoc Committee On Clean Water

Before The
STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

In the Matter Of)	California Regional Water Quality
The LOS ANGELES)	Control Board for Los Angeles
DEPARTMENT OF WATER AND)	Region; Order No. 95-133 (File:
POWER)	93-037)
)	
)	State Water Resources Control
)	Board No. _____

PETITION OF THE MILLER BREWING COMPANY
FOR REVIEW OF ORDER NO. 95-133

ROGERS & WELLS
TERRY O. KELLY
ANDREW J. YAMAMOTO
444 South Flower Street
Los Angeles, California 90071
(213) 689-2900

Attorneys for Petitioner
Miller Brewing Company

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Index to Exhibits

- 1 Regional Water Quality Control Board ("RWQCB") Order 95-133, adopted September 18, 1995.
- 2 Letter from Walter T. Shatford III, Fund for the Environment, to RWQCB dated September 7, 1995.
- 3 Letter from Mary Frampton, Save Our Coast, to RWQCB dated September 25, 1995.
- 4 Judgment, Miller Brewing Company v. Upper San Gabriel Valley Municipal Water District, LASC Case No. KC 017765, filed September 27, 1995.
- 5 List of persons known by the RWQCB to have an interest in the Petition.
- 6 Letter from Andrew J. Yamamoto to RWQCB dated September 20, 1995.
- 7 Declaration of Professor Daniel A. Okun ("Okun Decl. I"), dated August 30, 1994.
- 8 Declaration of Professor Ericson John List ("List Decl. I"), dated August 24, 1994.
- 9 Declaration of Professor Talbot Page ("Page Decl. I"), dated September 1, 1994.
- 10 Declaration of John F. Beach ("Beach Decl. I"), dated August 22, 1994.
- 11 Declaration of Henry J. Ongerth ("Ongerth Decl. I"), dated August 31, 1994.
- 12 Declaration of Professor Daniel A. Okun ("Okun Decl. II"), dated November 21, 1994.
- 13 Declaration of Professor Ericson John List ("List Decl. II"), dated November 21, 1994.
- 14 Declaration of Professor Talbot Page ("Page Decl. II"), dated November 22, 1994.
- 15 Declaration of Professor Ruben A. McDavid ("McDavid Decl. I"), dated November 21, 1994.
- 16 Declaration of Henry J. Ongerth ("Ongerth Decl. II"), dated November 21, 1994.
- 17 Declaration of Professor Daniel A. Okun ("Okun Decl. III"), dated January 16, 1995.

(iii)

- 18 Declaration of Henry J. Ongerth ("Ongerth Decl. III"), dated January 17, 1995.
- 19 Declaration of Professor Ruben A. McDavid ("McDavid Decl. II"), dated January 18, 1995.
- 20 Declaration of Ellen Stern Harris, dated January 18, 1995.
- 21 Declaration of Professor Ruben A. McDavid ("McDavid Decl. III"), dated July 13, 1995.
- 22 Letter from Robert M. Plancey, M.D., B.S. Chemistry, to the Upper San Gabriel Valley Municipal Water District ("USGVMWD"), dated January 3, 1994.
- 23 Report by Harding Lawson Associates entitled "Review Comments on the Draft Environmental Impact Report for the San Gabriel Valley Water Reclamation Program: State Clearing House No. 93401060", dated November 19, 1993.
- 24 Report by Flow Science Incorporated entitled "Review and Analysis: Draft Environmental Impact Report: San Gabriel Valley Reclamation Program", dated November 30, 1993.
- 25 Letter from Harding Lawson Associates to USGVMWD, dated July 18, 1994.
- 26 Letter from Professor E. John List, Ph.D., P.E., to Andrew J. Yamamoto, dated July 18, 1994.
- 27 Letter from Harding Lawson Associates to USGVMWD, dated August 9, 1994.
- 28 Report by MCD Consulting Services entitled "Comments on the Final Environmental Impact Report for the San Gabriel Valley Water Reclamation Program", dated August, 1994.
- 29 Report by MCD Consulting Services entitled "Comments on the Health Effects of the San Gabriel Valley Reclamation Program", dated August, 1994.
- 30 Memorandum from the County Sanitation Districts of Orange County's Molecular Microbiology Research Lab to Margaret H. Nellor, dated May 21, 1994.
- 31 Posters for the 1994 Legionella Study conducted by the County Sanitation Districts of Orange County.
- 32 Excerpts from the Report by Richard F. Ambrose, et al., entitled "Enhanced Environmental Monitoring Program at Malibu Lagoon and Malibu Creek", dated March 23, 1995.

- 33 Article by Hershel W. Lawson, et al., entitled "Waterborne Outbreak of Norwalk Virus Gastroenteritis at a Southwest U.S. Resort: Role of Geological Formations in Contamination of Well Water", Lancet, Vol. 337 (1991).
- 34 Los Angeles Times article entitled "Bird Deaths at Salton Sea Blamed On Toxic Algae", dated March 29, 1995.
- 35 Los Angeles Times article entitled "Drug-Resistant Bacteria Pose An Increasing Threat", dated March 25, 1995.
- 36 Article by G. Fred Lee and Ann Jones-Lee, entitled "Total Dissolved Solids and Groundwater Quality Protection" dated May, 1994.
- 37 Statement from the Work Session on Chemically Induced Alterations in Sexual Development: The Wildlife/Human Connection (1991).
- 38 Statement from the Work Session on Environmentally Induced Alterations in Development: A Focus on Wildlife (1993).
- 39 Article entitled "Environmental Estrogens Linked to Reproductive Abnormalities, Cancer", C&EN, January 31, 1994.
- 40 Article in Environmental Health Perspectives entitled "Development Effects of Endocrine-Disrupting Chemicals in Wildlife and Humans", by Theo Colborn, et al. (1993).
- 41 Article by L.J. Guillette entitled "Endocrine-Disrupting Environmental Contaminants and Reproduction: Lessons from the Study of Wildlife" in Women's Health Today: Prospectives on Current Research and Clinical Practice 1994.
- 42 Article by Howard A. Burn entitled "The Fragile Fetus" (1993).
- 43 Article in Science entitled "Environmental Toxicants Under Scrutiny at Baltimore Meeting", March 24, 1995.
- 44 Article by John A. McLachlan entitled "Functional Toxicology: A New Approach to Detect Biologically Active Xenobiotics", Environmental Health Perspectives, October, 1993.
- 45 Article in Science entitled "Meeting Briefs: Dioxins Dominate Denver Gathering of Toxicologists", November 18, 1994.
- 46 Fact Sheet, City of San Diego Study of Direct Potable Reuse of Reclaimed Water: Final Results, dated Winter 1992.
- 47 Article by Pierre Payment et al., entitled "A Randomized Trial to Evaluate the Risk of Gastrointestinal Disease Due to Consumption of Drinking Water Meeting Current Microbiological Standards", American Journal of Public Health (1991).

(v)

PETITION FOR REVIEW

Pursuant to California Water Code § 13320, the Miller Brewing Company hereby petitions the State Water Resources Control Board ("SWRCB" or "State Board") for review of Order No. 95-133 of the California Regional Water Quality Control Board for the Los Angeles Region ("RWQCB" or "Regional Board").

For the State Board's convenience, this Petition is organized in the manner set forth in 23 California Code of Regulations § 2050(a).

1. THE NAME AND ADDRESS OF THE PETITIONER

MILLER BREWING COMPANY
15801 First Street
Irwindale, California 91706

2. THE SPECIFIC ACTION OF THE REGIONAL BOARD WHICH THE
STATE BOARD IS REQUESTED TO REVIEW

Petitioner respectfully requests that the State Board review the Regional Board's decision to issue water reclamation requirements to the Los Angeles Department of Water and Power ("DWP") for the East Valley Water Recycling Project Phase 1-A Demonstration Project ("East Valley Project"). The reclamation requirements were formally adopted in RWQCB Order No. 95-133 on September 18, 1995. (A true copy of Order No. 95-133 is enclosed as Exhibit "1" hereto.)

3. THE DATE ON WHICH THE REGIONAL BOARD ACTED

The Regional Board adopted Order No. 95-133 on September 18, 1995.

4. STATEMENT OF THE REASONS THE REGIONAL BOARD'S ACTION
WAS IMPROPER

The Regional Board has violated the California Environmental Quality Act ("CEQA"), California Public Resources Code § 21000, et seq., by refusing to prepare a supplemental or new environmental impact report ("EIR") for the East Valley Project despite the wealth of new scientific information and the changed circumstances under which the project is proposed to be undertaken. This new information and change in circumstances clearly establishes that the 1991 EIR prepared by the DWP is inadequate.

5. THE MANNER IN WHICH THE PETITIONER IS AGGRIEVED

Recently, many environmental groups such as the Center for Community Action and Environmental Justice, Citizens for a Better Environment, Citizens for Clean Water, the Fund for the Environment and Save Our Coast have expressed serious concerns about one or more sewage-to-drinking-water projects (proposed or operational) around the state. For example, the Fund for the Environment has taken an official position opposing the East Valley Project unless appropriate and necessary safeguards are adopted. (A copy of the Fund for the Environment's September 7, 1995 letter is enclosed as Exhibit "2" hereto. As another example, a copy of Save Our Coast's September 25, 1995 letter is enclosed as Exhibit "3" hereto.) The East Valley Project poses many of the same health and environmental

risks as the San Gabriel Valley Water Reclamation Program which, at Petitioner's request, was invalidated by the Superior Court on August 4, 1995. (A copy of the final judgment entered in that case is enclosed as Exhibit "4" hereto.) Based on the foregoing, Petitioner requested that the Regional Board prepare a new EIR, including appropriate microbial and health risk assessments, for the East Valley Project before allowing the project to go forward.¹

Unfortunately, on September 18, 1995, notwithstanding the objections of Petitioner and others such as the Fund for the Environment, the Regional Board approved the East Valley Project without requiring the preparation of an updated or supplemental EIR, a health effects study or a microbial risk assessment.

6. THE SPECIFIC ACTION BY THE STATE BOARD REQUESTED BY
THE PETITIONER

Petitioner respectfully requests that (1) the State Board order the Regional Board to vacate Order No. 95-133; and (2) the State Board take on lead agency status and commission the preparation of a new EIR prior to considering whether the East Valley Project should be approved. Pursuant to Public Resources Code § 21089, the State Board should require DWP to pay the costs of preparing the new EIR.

¹ Petitioner supported its request by submitting a significant quantity of scientific material to the RWQCB. Some of that material is enclosed as exhibits to this Petition.

7. THE STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT
OF LEGAL ISSUES RAISED IN THE PETITION

Please see the attached Memorandum of Points and Authorities.

8. A LIST OF PERSONS KNOWN TO HAVE AN INTEREST IN THE
SUBJECT MATTER OF THE PETITION

A list of the persons known by the Regional Board to have an interest in the subject matter of the Petition is enclosed as Exhibit "5" hereto.

9. A STATEMENT THAT THE PETITION HAS BEEN SENT TO THE
APPROPRIATE REGIONAL BOARD AND TO THE DISCHARGER

Copies of this Petition have been mailed to both the RWQCB and the DWP.

10. A COPY OF THE REQUEST TO THE REGIONAL BOARD FOR
PREPARATION OF THE REGIONAL BOARD RECORD

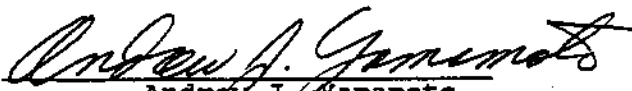
A copy of the Petitioner's September 20, 1995 request to the Regional Board for preparation of the Regional Board record,

including a transcript of the September 18, 1995 Regional Board meeting, is enclosed as Exhibit "6" hereto.

DATED: October 13, 1995

Respectfully submitted,

ROGERS & WELLS
TERRY O. KELLY
ANDREW J. YAMAMOTO

By: 
Andrew J. Yamamoto

Attorneys for Petitioner
Miller Brewing Company

MEMORANDUM OF POINTS & AUTHORITIES

I.

INTRODUCTION

As originally designed by DWP, the East Valley Water Reclamation Project (hereinafter the "Old East Valley Project") was intended to deliver up to 50,000 acre-feet per year of effluents from the Tillman Sewage Plant to spread at the Hansen and Pacoima spreading grounds for recharge into an aquifer currently used for drinking water purposes and to industrial and irrigation customers for direct nonpotable use. (See Final Environmental Impact Report: East Valley Water Reclamation Project ("FEIR"), dated July 1991, p. 1-1.) The Tillman Sewage Plant's primitive treatment train does not include any advanced wastewater treatment methods such as reverse osmosis, granular activated carbon filtration, ozonation or ultra violet disinfection. (Id., pp. 5-2 to 5-3.)

Presumably concerned with the public health and environmental risks posed by the Old East Valley Project, Regional Board staff declined to recommend its approval. Instead, staff recommended that the Regional Board permit a scaled down project (i.e., the current East Valley Project) before deciding whether to allow the implementation of a full scale version (i.e., the Old East Valley Project). The primary factor distinguishing the current project from the Old East Valley Project is that the current "demonstration" project is limited to 10,000 acre-feet per year for a total of three years.

However, even as modified by the Regional Board, the current East Valley Project could irreversibly contaminate an important source of drinking water. New scientific information

(none of which was considered by DWP in its 1991 EIR) establishes that the pollution caused by the East Valley Project could include, but not be limited to, contamination by numerous unidentified organic chemicals and heavy metals, by dissolved solids, and contamination by pathogens. This new information includes studies which have found that recycled wastewaters of the type that will be used in the East Valley Project contain viruses and deadly microbes such as Legionella (which causes Legionnaire's disease), Giardia, and Cryptosporidium.

Indeed, given the many weaknesses in the 1991 EIR, the vast quantity of important new information available and the many changes in the design in the project since the 1991 EIR was prepared, the best course for the State Board would be to prepare a completely new EIR. In these circumstances, although an EIR which only addressed the new information and issues would be better than nothing, it is clear that a new EIR is not only far superior, but is also legally required. (See, e.g., Sierra Club v. County of Sonoma, 6 Cal.App.4th 1307, 1320 (1992) [Holding that the deferential standard of reviewing agency decisions usually applied in Public Resources Code § 21166 cases is inapplicable where the project has substantially changed].)

Moreover, by approving a wastewater project which will admittedly pollute the aquifer, at least to some extent, the Regional Board has violated the fundamental rule of safe drinking water regulation which states that "the proper discharge of public health responsibility requires the selection of the most pristine source for drinking water . . ." (Daniel A. Okun, Robert H. Harris & Robert Tardiff, Water Quality Considerations in the Selection of