

Friends of the Esteros / EAC

Box 609, Point Reyes Station, CA 94956 voice(707)875-2345 fax(707)875-2947



October 4, 1996

Att'n: Ms. Marie Meredith
City of Santa Rosa
Community Development Department
Post Office Box 1678
Santa Rosa, CA 95402-1678

CITY OF SANTA ROSA

P.O. Box 1678
Santa Rosa, CA 95402

OCT 07 1996

DEPARTMENT OF
COMMUNITY DEVELOPMENT

Re: Comments on the Draft EIR/EIS Documents.

Dear Councilmembers:

I am submitting the enclosed comments on the Draft EIR/EIS on behalf of myself, 001
and on behalf of Friends of the Esteros/EAC.]

It is our finding that the Draft EIR/EIS is deficient in that it fails to consider the 002
following substantial issues, in addition to omissions identified by the specific
referenced technical comments on the document which are enclosed herein:]

1. The Draft EIR/EIS does not consider the full range of available and feasible 003
alternatives. Specific alternatives were discarded by the City and the Corps prior to
the Scoping and NOI/NOP process, and were not considered in the Draft EIR/EIS
document in spite of being raised by commentors during the Scoping process.] Some 004
of the alternatives which were considered in the Draft EIR/EIS document, such as
the proposal for 20% Russian River discharge, are not reclamation options.] This 003 (cont.)
lack of consideration of the full range of project alternatives has been brought to the
attention of the City of Santa Rosa and the Corps of Engineers in previous written
comments, resubmitted herewith in Attachments A and B to this letter, and
incorporated by reference in our comments on the Draft EIR/EIS.]

2. The Draft EIR/EIS arbitrarily establishes thresholds of significance for project 005
impacts,] and then suggests hypothetical mitigation measures which have not been 006
demonstrated to be effective.] The Draft EIR/EIS contains a number of erroneous 007
assumptions, which are cited in our detailed technical comments,] wherein 008
significant impacts are identified and no mitigation measures are suggested.] The 009
Draft EIR/EIS also frequently fails to consider the CEQA Guidelines in establishing
levels of significance for the purpose of designing mitigation strategies.]

3. The Draft EIR/EIS fails to adequately consider the regulatory impediments to any of the elements of the West County disposal option posed by the Gulf of the Farallones National Marine Sanctuary and the Central Coast International Biosphere Reserve, and fails to provide mitigation strategies for the determination by the National Oceanic and Atmospheric Administration that *any* change in the condition of the Estero de San Antonio and the Estero Americano is deemed a significant impact (15 CFR 922). Section 4.6 of the Draft EIR/EIS on Surface Water Quality indicates, in discussing the Storage Reservoir Component, that "The change in streamflow is expected to cause a water quality change in the esteros." The Draft EIR/EIS identifies several types of impacts deemed "significant" for Alternative 3 in the Americano Creek and Stemple Creek watersheds, including Ammonia (Impact 6.5.1, page 4.6-82), Dissolved Oxygen (Impact 6.5.1, page 4.6-83), and Special Sites (Impact 6.5.3, page 4.6-84), for which no feasible mitigation can be identified. The Draft EIR/EIS identifies several impacts associated with the irrigation component as "significant" for Alternative 3, including Dissolved Copper (Impact 6.7.1, page 4.6-87), Salinity, Ammonia, Dissolved Oxygen, Planktonic Algae, Benthic Algae, and Metals (Impact 6.7.3, page 4.6-89), for which no feasible mitigation can be identified. Mitigations *must* be identified or Alternative 3 should be discarded in the Final EIR/EIS as infeasible. 010 011 012
4. The Draft EIR/EIS fails to consider the Point Reyes National Seashore Boundary Study, and federal legislation which would expand the Point Reyes National Seashore to include both the Estero de San Antonio and the Estero Americano, on the City's wastewater disposal plans. National Park Service jurisdiction over project areas and resources must be considered. 013
5. The Draft EIR/EIS fails to consider the implications of the federal Endangered Species Act, and ESA-listed species impacted by project elements, with respect to the feasibility of permitting and completing various project elements, and on the feasibility of establishing effective mitigation strategies. CEQA Guidelines also specifically require a finding of significance for a project which will significantly affect a rare or endangered species of animal or plant in the habitat of the species, as is the case with several of the proposed project elements. 014 015
6. The Draft EIR/EIS does not adequately consider the issue of jurisdictional wetlands, does not clarify how jurisdictional wetlands within various project elements were identified, and does not address Section 404 compliance issues related to jurisdictional wetlands. The questionable long-term biological viability of created wetlands intended for mitigation uses is not addressed. 016 017 018
7. Draft EIR/EIS has not been adequately circulated for public review. The documents, at a prohibitive cost of \$120 for a set of Volumes 1-3, and \$1400 for a set including the appendices, are not affordable to the majority of the public. Advertised public locations for review do not have the documents in accessible form or do not have advertised documents at all. (The Sebastopol Library, 019 020

identified in City mailings as having the full set of Draft EIR/EIS documents and appendices, does not have any appendices at all. The Santa Rosa Library has the CD-ROM disk for reference use within the library only, but has no compatible computer system capable of reading the disk.) 020 (cont.)

8. The Draft EIR/EIS refers to technical mitigations which would pump downstream effluent leakage from West County reservoir sites back upstream into the reservoirs, and to recapture agricultural irrigation tail water, but does not identify what these mitigations will consist of, what biological impacts could be anticipated from their operation, nor what their level of reliability might be. 021

9. The Draft EIR/EIS fails to address mitigations for and biological impacts of elevated levels of salts in the wastewater. 022
 [The Draft EIR/EIS fails to address 023
 mitigations for and biological impacts of elevated levels of metals in surface flows of wastewater, as well as in percolate and subflow.] 024
 [The Draft EIR/EIS fails to address 024
 mitigations for and the biological implications of impacts of diminished levels of dissolved oxygen resulting from anoxic conditions due to reservoir stratification.]

10. The Draft EIR/EIS fails to address data from a recent Washington State Department of Health study providing evidence that nitrates occurring in groundwater in concentrations as low as as 10 parts per million have been implicated in the inducement of blue baby syndrome, including infant deaths, associated with children under four months who drink infant formula. 025

11. The Draft EIR/EIS fails to disclose and delineate legislative efforts and lobbying activities which have been undertaken by and on behalf of the City of Santa Rosa to weaken federal clean water statutes to permit increased levels of effluent discharge into the Russian River and to remove jurisdictional wetlands in the path of Santa Rosa's wastewater disposal project elements from regulatory jurisdiction. This discussion should explain the cumulative impacts nationwide, should the City succeed in weakening the Clean Water Act. 026
 [Federal lobbying activity and 027
 expenditure reports, required by law to be filed quarterly by the City with the Clerk of the U.S. House of Representatives and the Secretary of the U.S. Senate, should be included in the Final EIR/EIS explaining past and present City of Santa Rosa congressional lobbying activities in this regard. See Attachment I.]

12. The Draft EIR/EIS fails to document the cumulative effects of combinations of project elements, including but not limited to, consideration of the cumulative impacts of multiple reservoirs within the same watershed (including construction impacts), cumulative impacts of multiple irrigation operations within the same watershed, cumulative impacts of mitigation measures in any single watershed, and the cumulative effects of the destruction of multiple wetland sites within the same watershed. 028

13. CEQA Guidelines clearly require preparers of an EIR to consider as significant 029
any effects which may induce substantial growth or concentration of population, or
which substantially degrade or deplete ground water resources. The Draft EIR/EIS
has failed to consider the growth-inducing impacts of providing a replacement
potable water supply to supplant damage which the Draft EIR/EIS acknowledges will
occur to the water quality of domestic water wells in the West County if that project
is selected. |

14. CEQA Guidelines require preparers of an EIR to consider as significant project 030
elements which expose people or structures to major geologic hazards. The West
County project elements create such hazards through the construction of earth fill
dams near the San Andreas fault zone and in the immediate proximity of mapped
existing secondary faults. |

15. CEQA Guidelines require preparers of an EIR to consider as significant activities 031
which disrupt or adversely affect a prehistoric or historic archaeological site or a
property of historic or cultural significance to a community or ethnic or social
group; or a paleontological site except as a part of a scientific study. The Draft
EIR/EIS fails to identify effective mitigation measures for several of the proposed
reservoir sites where archaeological resources have been identified. Table 1-8
indicates that the Two Rock reservoir site has "especially valuable" cultural
resources, with 232 known cultural resources impacted. The Bloomfield site
evaluation has identified 203, Carroll Road 197, Huntley 196, and Valley Ford 191
known cultural resources, respectively. |

16. CEQA Guidelines require preparers of an EIR to consider as significant activities 032
which interfere substantially with the movement of any resident or migratory fish
or wildlife species. The Draft EIR/EIS fails to make this finding for a number of
project elements, including dams which will block fish passage and for which no
fish ladders or migratory bypass mechanisms are proposed. |

We are enclosing, and incorporate herein by reference, extensive technical 033
comments on the specific sections of the DEIR/EIS for the record. |

Thank you for your response in detail to each of the issues raised. Please note that 034
grouping of comments by the document preparers for the purpose of superficial
generic responses, or the avoidance of responding to commentors through the use
of a "comment noted" approach, is *not* considered to provide an adequate response
to the issues raised by the Draft EIR/EIS comments. |

Sincerely,

Richard Charter

Richard Charter
Co-Chair, Friends of the Esteros

Enclosures (incorporated by reference in our comments):

Attachment A - Letter of December 1, 1994 to Corps of Engineers notifying the agency of the lack of consideration of the full range of potential project alternatives and requesting preparation of a new NOI and NOP and a new scoping process. 035

Attachment B - Letter of December 1, 1994 to Ms. Marie Meredith notifying the City of Santa Rosa of the lack of consideration of the full range of potential project alternatives and requesting preparation of a new NOI and NOP and a new scoping process.

Attachment C - Article from August 1996 issue of "Cascade" magazine, citing Washington Department of Health Study of the Tri-Cities region of Washington State indicating health threat to infants of extremely low levels of nitrogen in groundwater.

Attachment D - Oral testimony of Richard Charter at September 24, 1996 Public Hearing on Draft EIR/EIS at Finley Center, Santa Rosa.

Attachment E - "Tomales Bay/Bodega Bay Watershed Boundary Study, Point Reyes National Seashore, Marin and Sonoma Counties, California, July 1995."

Attachment F - "The Natural Resources of Esteros Americano and de San Antonio", State of California, Department of Fish and Game, August 1977.

Attachment G - U.S. Army Corps of Engineers, "Explore 4, The California Coastline, Arena Cove to the Golden Gate", esp. Chapters 4, 5, 6 and 7, delineating coastal transport processes affecting river, bay, and estuary mouths in contradiction to erroneous assumptions published in the Draft EIR/EIS document and appendices.

Attachment H - Detailed technical comments on the Draft EIR/EIS document.

Attachment I - News coverage of lobbying efforts by the City of Santa Rosa to weaken the federal Clean Water Act instead of mitigating impacts of the City's wastewater disposal project.

Attachment J - Hearing Notice on Endangered Species Act Proposed Listing of Steelhead, Santa Rosa Press Democrat, October 5, 1996.]

cc: Representative Lynn Woolsey
 Senator Milton Marks
 Senator Mike Thompson
 Supervisor Gary Giacomini, County of Marin

Mr. Pat Gallagher, Heller, Ehrman, White & McAuliffe
Mr. Gary Epperley, Heller, Ehrman, White & McAuliffe
Mr. Trent Orr, Law Offices
Ms. Susan Brandt-Hawley, Attorney
Mr. Bill Walton, Estero Mutual Water Company
Mr. Tom Roth, Friends of the Russian River
Mr. Robert Sulnick, Mr. Andrew Palmer, American Oceans Campaign
Ms. Brenda Adelman, Russian River Watershed Protection Committee
Mr. Richard Gray, Marin Conservation League
Mr. Dick Shannon, Agricultural Property Rights Alliance

ATTACHMENT A

Richard Charter 6947 Cliff Avenue, Bodega Bay, CA 94923
(707)875-3482 (707)875-2345 fax (707)875-2947

December 1, 1994

Mr. Wade Eakle
District Engineer
U.S. Army Corps of Engineers
San Francisco District
211 Main Street
San Francisco, CA 94105

Re: Comments Submitted on behalf of Friends of the Esteros/EAC on the NOI for the Santa Rosa Subregional Long-Term Wastewater Project in Response to the Federal Register Notice.

Dear Mr. Eakle:

These comments are being submitted on behalf of Friends of the Esteros / 036
Environmental Action of West Marin on the Notice of Intent for the Santa Rosa
Subregional Long-Term Wastewater Project.

These comments are intended to supplement the oral testimony which I presented on behalf of these groups at the 3:00 pm public scoping hearing on November 17, 1994 in Santa Rosa. The attached technical comments are also part of our submittal at this time.]

There are several serious flaws with respect to lack of legal compliance with CEQA 037
and NEPA which relate to the NOP, the NOI, and with the hearing process conducted on November 17, 1994. These problems have rendered four primary areas of the process, as conducted to date by the City of Santa Rosa, City staff and consultants, and the U.S. Army Corps of Engineers, in noncompliance with applicable statutes:]

I. The NOI Fails to Identify the full range of project options under consideration: 038
The NOI must be republished in the Federal Register, and a new comment period initiated, due to the inadequacy of the published range of project options. The NOI contains no information of the ocean outfall option, pursuant to City of Santa Rosa Resolution #467 adopted by the Santa Rosa City Council on June 16, 1994, which deleted this alternative from further consideration. The NOI must be renoticed and recirculated to affected agencies and the public to permit written and oral comment on ocean outfall if this alternative is to be belatedly reintroduced. A new action by the Santa Rosa City Council will also be required, rescinding Resolution #467, prior

to renouncing of the NOI.]

038 (cont.)

II. The NOP Fails to Identify the full range of project options under consideration: 039

The NOP must be republished, and a new comment period initiated, due to the inadequacy of the published range of project options. The NOP contains no information on the ocean outfall option, pursuant to City of Santa Rosa Resolution #467 adopted by the Santa Rosa City Council on June 16, 1994, which deleted this alternative from further consideration. The NOP must be renounced and recirculated to affected agencies and the public to permit written and oral comment on ocean outfall if this alternative is to be belatedly reintroduced. A new action by the Santa Rosa City Council will also be required, rescinding Resolution #467, prior to renouncing of the NOP.]

III. The "Summary of the Environmental Consultants Scope of Work" for the Proposed Environmental Study Phase Was Not Released Prior to the November 17, 1994 Santa Rosa Public Hearing: 040

As a result of an acknowledged error on the part of the City of Santa Rosa, the "Summary of the Environmental Consultants Scope of Work" document was not released for public review in a timely fashion which would permit reasonable public review. This document was not made available to the public until November 17, 1994, where it was circulated only during the public hearings on the document itself. To expect the public to read, analyze, and provide comment on a fifty-page technical document with no prior circulation is unreasonable by any standard. The "Summary of the Environmental Consultants Scope of Work" must be also be revised to incorporate the proposed ocean outfall alternative and this document must be subsequently recirculated for public comment for a reasonable review period.]

IV. The Preliminary Scoping Report Fails to Identify the full range of project options: 041

The Preliminary Scoping Report must be republished, recirculated, and a new comment period initiated, due to the inadequacy of the published range of project options. The Preliminary Scoping Report contains no scoping analysis of the ocean outfall option, pursuant to City of Santa Rosa Resolution #467 adopted by the Santa Rosa City Council on June 16, 1994, which deleted this alternative from further consideration. The Preliminary Scoping Report must be revised to include information on the ocean outfall option, including design parameters, proposed locations, pipeline corridors, impacts on the Sonoma Coast unit of the California State Park System, ocean current patterns, and all relevant CEQA and NEPA issues raised by federal, state, and local permit jurisdictions, including the County of Sonoma, the California Coastal Commission, the State Lands Commission, the State Water Quality Control Board, the U.S. Department of Interior, the U.S. Department of Commerce, and the U.S. Department of the Navy. The Preliminary Scoping Report, as previously circulated, fails to permit agency or public written or oral comment on the ocean outfall option.]

Failure on the part of the lead agencies to publicly disclose all project alternatives in the NOP, NOI, and supporting documents has deprived affected agencies, public 042

commentors, and the court of jurisdiction of the ability to reasonably analyze and provide input on the scope of issues which need to be addressed in the draft EIR and the draft EIS. | 042 (cont.)

Please advise our organization, at the above mailing address, once the City of Santa Rosa and the Corps of Engineers have initiated and renoticed an orderly scoping process which makes a reasonable attempt to comply with applicable statutes. | 043

Sincerely,

Richard Charter

Richard Charter
Co-Chair, Friends of the Esteros

Attachments:

Technical comments submitted by Friends of the Esteros / Environmental Action of West Marin.

Letter of November 16, 1994 from Assistant City Manager Ed Brauner, Jr., City of Santa Rosa.

cc:

Representative Lynn Woolsey
Senator Milton Marks
Lieutenant Governor Leo McCarthy
Mr. Ed Euber, Gulf of the Farallones National Marine Sanctuary
Mr. Pat Gallagher, Heller, Ehrman, White & McAuliffe
Mr. Trent Orr, Mr. Roger Beers, Law Offices of Roger Beers
Ms. Susan Brandt-Hawley, Attorney
Mr. Bill Walton, Estero Mutual Water Company
Ms. Juliana Doms, E.I.R. Magazine
Mr. Tom Roth, Friends of the Russian River
Mr. Robert Sulnick, Mr. Andrew Palmer, American Oceans Campaign

ATTACHMENT B

Richard CharterBox 583, Bodega Bay, CA 94923
(707)875-3482 (707)875-2345 fax (707)875-2947

December 1, 1994

Ms. Marie Meredith
Department of Community Development
100 Santa Rosa Avenue, Room 3
Santa Rosa, CA 94501Re: Comments Submitted on behalf of Friends of the Esteros / Environmental
Action of West Marin on the NOP and NOI for the Santa Rosa Subregional Long-
Term Wastewater Project.

Dear Ms. Meredith:

[These comments are being submitted on behalf of Friends of the Esteros / 044
Environmental Action of West Marin on the Notice of Preparation and the Notice
of Intent for the Santa Rosa Subregional Long-Term Wastewater Project.]

These comments are intended to supplement the oral testimony which I presented
on behalf of these groups at the 3:00 pm public scoping hearing on November 17,
1994 in Santa Rosa. The attached technical comments are also part of our submittal
at this time.]

[There are several serious flaws with respect to lack of legal compliance with CEQA 045
and NEPA which relate to the NOP, the NOI, and with the hearing process
conducted on November 17, 1994. These problems have rendered four primary
areas of the process, as conducted to date by the City of Santa Rosa, City staff and
consultants, and the U.S. Army Corps of Engineers, in noncompliance with
applicable statutes:]

[I. The NOP Fails to Identify the full range of project options under consideration: 046
The NOP must be republished, and a new comment period initiated, due to the
inadequacy of the published range of project options. The NOP contains no
information on the ocean outfall option, pursuant to City of Santa Rosa Resolution
#467 adopted by the Santa Rosa City Council on June 16, 1994, which deleted this
alternative from further consideration. The NOP must be renoticed and
recirculated to affected agencies and the public to permit written and oral comment
on ocean outfall if this alternative is to be belatedly reintroduced. A new action by
the Santa Rosa City Council will also be required, rescinding Resolution #467, prior
to renoticing of the NOP.]

II. The NOI Fails to Identify the full range of project options under consideration. 047

The NOI must be republished in the Federal Register, and a new comment period initiated, due to the inadequacy of the published range of project options. The NOI contains no information of the ocean outfall option, pursuant to City of Santa Rosa Resolution #467 adopted by the Santa Rosa City Council on June 16, 1994, which deleted this alternative from further consideration. The NOI must be renoticed and recirculated to affected agencies and the public to permit written and oral comment on ocean outfall if this alternative is to be belatedly reintroduced. A new action by the Santa Rosa City Council will also be required, rescinding Resolution #467, prior to renoticing of the NOI. |

III. The "Summary of the Environmental Consultants Scope of Work" for the Proposed Environmental Study Phase Was Not Released Prior to the November 17, 1994 Santa Rosa Public Hearing: 048

As a result of an acknowledged error on the part of the City of Santa Rosa, the "Summary of the Environmental Consultants Scope of Work" document was not released for public review in a timely fashion which would permit reasonable public review. This document was not made available to the public until November 17, 1994, where it was circulated only during the public hearings on the document itself. To expect the public to read, analyze, and provide comment on a fifty-page technical document with no prior circulation is unreasonable by any standard. The "Summary of the Environmental Consultants Scope of Work" must be also be revised to incorporate the proposed ocean outfall alternative and this document must be subsequently recirculated for public comment for a reasonable review period. |

IV. The Preliminary Scoping Report Fails to Identify the full range of project options: 049

The Preliminary Scoping Report must be republished, recirculated, and a new comment period initiated, due to the inadequacy of the published range of project options. The Preliminary Scoping Report contains no scoping analysis of the ocean outfall option, pursuant to City of Santa Rosa Resolution #467 adopted by the Santa Rosa City Council on June 16, 1994, which deleted this alternative from further consideration. The Preliminary Scoping Report must be revised to include information on the ocean outfall option, including design parameters, proposed locations, pipeline corridors, impacts on the Sonoma Coast unit of the California State Park System, ocean current patterns, and all relevant CEQA and NEPA issues raised by federal, state, and local permit jurisdictions, including the County of Sonoma, the California Coastal Commission, the State Lands Commission, the State Water Quality Control Board, the U.S. Department of Interior, the U.S. Department of Commerce, and the U.S. Department of the Navy. The Preliminary Scoping Report, as previously circulated, fails to permit agency or public written or oral comment on the ocean outfall option. |

Failure on the part of the lead agencies to publicly disclose all project alternatives in the NOP, NOI, and supporting documents has deprived affected agencies, public commentators, and the court of jurisdiction of the ability to reasonably analyze and 050

provide input on the scope of issues which need to be addressed in the draft EIR and the draft EIS.] 050 (cont.)

Please advise our organization, at the above mailing address, once the City of Santa Rosa and the Corps of Engineers have initiated and renoticed an orderly scoping process which makes a reasonable attempt to comply with applicable statutes.] 051

Sincerely,

Richard Charter

Richard Charter
Co-Chair, Friends of the Esteros

Attachments:

Technical comments submitted by Friends of the Esteros / Environmental Action of West Marin.

Letter of November 16, 1994 from Assistant City Manager Ed Brauner, Jr., City of Santa Rosa.

cc:

Representative Lynn Woolsey
Senator Milton Marks
Lieutenant Governor Leo McCarthy
Mr. Ed Euber, Gulf of the Farallones National Marine Sanctuary
Mr. Pat Gallagher, Heller, Ehrman, White & McAuliffe
Mr. Trent Orr, Mr. Roger Beers, Law Offices of Roger Beers
Ms. Susan Brandt-Hawley, Attorney
Mr. Bill Walton, Estero Mutual Water Company
Ms. Juliana Doms, E.I.R. Magazine
Mr. Tom Roth, Friends of the Russian River
Mr. Robert Sulnick, Mr. Andrew Palmer, American Oceans Campaign

Field Notes

from Cascadia

Blue Babies, Hot Potatoes

A NEW STATE OF WASHINGTON STUDY LINKS A RARE INFANT DISEASE TO A POISON IN SOME COLUMBIA BASIN DRINKING WATER SUPPLIES. CRITICS SAY FRENCH FRY PRODUCERS ARE TO BLAME.

by Paul Kobertstein

New research on a rare and sometimes fatal infant disease known as methemoglobinemia, or "blue baby syndrome," is raising troubling questions about health effects associated with potato and French fry production in the Columbia Basin.

The Washington Department of Health has reported seven possible cases of blue baby syndrome among infants in the Tri-Cities area of southeast Washington, where drinking water wells are contaminated with a substance known to cause the disease. That substance is nitrates, and the likely source is the nitrogen-based fertilizer applied to the potato fields throughout the area. The cases occurred from 1989 through 1994.

Doctors say blue baby syndrome can result when infants ingest nitrates in concentrations of as little as 10 parts per million in their water, which is the maximum allowed under the Safe Drinking Water Act. According to the U.S. Geological Survey, 46 percent of the residential drinking water wells in the Tri-Cities area violated the 10 parts per million standard during the late 1980s. More recent data are not available.

While varied crops such as onions, sugar beets and peppermint are treated

with nitrogen fertilizers, the lion's share is spread on potato fields. And, according to recent studies cited by Washington health officials, the application is vigorous: farmers apply 24 to 38 percent more of these fertilizers than crops require. Health officials believe at least some of the excess nitrate percolates into underground water supplies.

Similar health studies in the Dakotas and Nebraska have found a correlation between nitrates in drinking water and blue baby syndrome at the same nitrate contamination levels seen in the Columbia Basin. However, health officials in Washington emphasize they don't yet have enough evidence to show a clear connection. There's no evidence any of the cases reported in the study did or did not involve hospitalization. Doctors do not routinely report cases of methemoglobinemia. The study did find 13 other cases of childhood methemoglobinemia outside the Columbia Basin that did involve hospitalization, in Island, King, Yakima, Spokane, Pierce and Clark counties.

Health officials do say there's enough concern to warrant further investigation, says the study's lead author, Joanne Walker Shields, Ph.D., an epidemiologist for the Health Department's Office of Toxic Substances. "We would suspect they (the seven cases) might be



French fries are safe to eat, but growing them can pollute drinking water supplies with nitrate, a potential hazard to infant health.

associated with environmental causes."

Nonetheless, she says the study is very preliminary, adding, "we weren't able to get all the answers we wanted to determine what direction our work should take in the future. The next step

is to survey all of the physicians in the state."

But William Bean, president of the Columbia Basin Institute, a Portland-

FIELD NOTES CONTINUED ON PAGE 4

ATTACHMENT C
"Cascadia" Magazine

August 1996

Field Notes CONTINUED

CONTINUED FROM PAGE 3

based environmental group, says the study is bad news for the potato industry "because it does show there are blue babies just where you'd expect to find them." He insists that the study understates the number of blue baby syndrome cases. "Doctors are not instructed to look for it, and are not trained on how to look for it. So it's not surprising evidence of it is spotty."

But Craig Smith, vice president of environmental affairs for the Northwest Food Processors Association, said the results show there's little problem. "What this indicates is methemoglobinemia is something we need to watch. But this report found no cases of hospital admissions for childhood methemoglobinemia in the Columbia Basin, and it found there was not a significant problem."

The phrase "blue baby syndrome" refers to the bluish color that appears around the mouth, hands and feet of victims; as well as to the fact that infants, especially ones who drink infant formula and are under 4 months of age, are at the greatest risk of contracting the disease. The disease occurs when hemoglobin in the blood absorbs a nitrate molecule in place of oxygen. The body becomes oxygen deprived, leading if untreated to a form of chemical asphyxiation. Infants are vulnerable because their stomachs lack sufficient quantities of an enzyme that can neutralize nitrate. Infants who drink formula milk also typically consume three times more water than adults relative to body weight. Infants who have poor nutrition or suffer gastrointestinal illness are in danger of being misdiagnosed and may be at greatest risk, according to Washington health officials. Long-term exposure can cause physical or mental retardation, and even death.

Infants of dark skin color may be at higher risk, health officials say, because changes in their skin color can be missed. According to Bean, the areas affected in the Columbia Basin have a relatively high Hispanic population.

If nitrates in drinking water are a factor in the illnesses identified in the Washington study, there's likely to be reason for concern throughout potato-growing areas of central and eastern Washington, eastern Oregon and Idaho, where the levels of nitrate contamination in water are similar to those seen in Tri-Cities area supplies. Tens of thousands of people might be affected.

Indeed, nitrate contamination in water is a national concern. In March 1996, the Environmental Working Group reported that 12 million Americans drink water from nearly 1,000 water systems where some or all of the drinking water supply contains unsafe amounts of the substance.

The Columbia Basin Institute first brought national attention to the issue in 1994 with the release of a study reported on the front page of the New York Times. But the study drew heat from the French fry industry, and, Bean says, as a result some foundations discontinued their support of the Portland-based non-profit.

French fry production in the Northwest provides 4,000 year-round jobs, involving 2.5 million acres. The fertilizers help farmers boost crop yields substantially while retaining the quality of the nearly uniformly white, quarter-inch-square, 3-inch-long French fry served at many fast food restaurants around the world. Potato production in the Northwest last year topped 6 billion pounds.

The fact that French fries are a popular snack among children is a wrinkle Bean finds ironic. "One of the great contradictions of the late 20th Century is that Ronald McDonald is not your friend," he says. "Wherever they grow the French fry the pattern of contamination is the same."

The nitrates-blue baby-French fry connection is buttressed by EPA reports that came out after the CBI study. One 1995 EPA report says in the Tri-Cities area, nitrogen-based fertilizers used in agriculture "are a major source of nitrate

in ground water." It also says most drinking water wells that contain unsafe nitrate levels "are immediately downgradient of irrigated cropland."

But Smith of the Northwest Food Processors Association says the industry has improved its practices. "The big issue is what is industry doing so as to be responsible: We have not always done the right thing. In the past we have done a lot of things that have been less than the best management practices that have to do with water quality. The knowledge curve continues to build; we understand a lot more about how to manage ground water than 10 years ago."

The EPA's response to the problem has been cautious. For example, at a January 1995 meeting, Chuck Clark, the EPA's Northwest regional director, said EPA "is not sure how high a priority can be assigned to ground water pollution within the Columbia Basin in light of other pressing demands." The EPA formed a task force to study the problem further, which led to the Washington Health Department's report. The EPA also launched an investigation of Columbia Basin Institute itself — for the purpose of determining "whether an EPA grant was used to produce the original (French fry) report," according to the summary of a May 11, 1995, EPA ground water quality meeting. Bean says no EPA money funded his study; the grant was awarded a year after its completion.

Shields of the Washington Health Department says the public needs better information about what's in its water. "If nitrates are getting in," she says, "perhaps other things are also getting in from surface runoff. That's something to be concerned about regardless of your age. If you suspect your water quality is not what it should be, you should have your water tested."

Attachment D

Testimony of Richard Charter
on behalf of Friends of the Esteros/EAC
and Richard Charter,
at the Public Hearing on the Draft EIR/EIS
September 24, 1994
Finley Center, Santa Rosa

My name is Richard Charter. 053
 I reside at 6947 Cliff Avenue, Bodega Bay, CA 94923
 I appreciate this opportunity to provide
 testimony today on behalf of myself,
 and also on behalf of Friends of the Esteros.
 I would like to incorporate in this testimony, by reference, detailed written
 comments which
 will be submitted prior to the close of the
 formal comment period.]

I would like to first address the issue of 054
 the lack of ready public access for the purpose
 of reviewing the DEIR/EIS.]

The entire purpose of the CEQA and NEPA 055
 statutes with respect to requiring the preparation and circulation of these
 documents has been defeated by your agencies.

To put it bluntly, no one can afford to purchase your documents.

To expect an average member of the public
 to be able to afford to pay \$120 for a set of
 the basic documents, in expensive plastic binders, is a travesty.
 To expect the public to pay \$120 for a CD-ROM
 disk which costs about \$25 at most to manufacture and distribute is
pathetic.]

How many of you paid \$120 for a DEIR/EIS or a CD-ROM?] 056

Further, for the City to advertise that all volumes, including the 057
 appendices, of the DEIR/EIS would be available in specific public libraries,

when in fact they are not, just sends those individuals who are in search of these documents on a wild goose chase.] 057 (cont.)

[There has been no valid public circulation of the DEIR/EIS, given the prohibitive cost to the interested public of both the paper hard-copy versions and the CD-ROM version, and the inadequate number of volumes in the libraries closest to the various impact areas of the project.] 058

[I would like to challenge some of the underlying assumptions of the DEIR/EIS. 059

First, you have asked, fundamentally, the wrong question.

The question is not "What can we do?"

The question is not even "How can we prevail in Court?"

The question is "What kind of world do we want and what will nature require of us?"

[In no measure does the DEIR/EIS ever seek to explore the ultimate carrying capacity of the Santa Rosa plain to support increasing urbanization. The DEIR/EIS refers only to general plan buildouts, many of which will be nearly upon us by the time this project is built. A good question to ask might be "Then What?"] 060

[The DEIR/EIS fails to provide a meaningful ecological risk assement from which decisionmakers, and the public, can draw realistic conclusions.] 061

[Creating the illusory appearance of accumulating a lot of data does not mean that you have provided a framework for resolving the fundamental questions surrounding your project, or for making a rational collective decision about which components to discard and which to adopt.] 062

[The focus of the DEIR/EIS document on identification of arbitrary "levels of significance", and the subsequent emphasis on designing hypothetical "mitigation" methodologies to theoretically diminish thoretically "significant impacts" below the threshold of significance, renders large portions of the analysis meaningless.] 063

[The DEIR/EIS's focus on developing mitigation measures has skewed the cost-benefit analysis and the assessment of relative environmental impacts 064

of various options in a manner which makes rational comparison of the merits and disadvantages of those options virtually impossible.] 064 (cont.)

[Downstream impacts of components of the treated wastestream are generally dismissed in the DEIR/EIS with blind reassurances about the quality of the water. Little is said in the document about the implications for various pollutants which remain in the effluent, on different types of environments - wetlands, rivers, creeks, estuaries, and their inhabitants.] 065

[Nitrates, for example, are not only of concern for their ability to create algae blooms in the Laguna de Santa Rosa and in the Russian River. 066

A recent health effects study by the Washington Department of Health has reported seven possible cases of blue baby syndrome, a rare and sometimes fatal infant disease, where drinking water wells are contaminated with nitrates which have percolated down into the aquifer from nitrogen-based fertilizer applied to potato fields in the Tri-Cities area of Washington. The disease occurs when hemoglobin in the blood absorbs a nitrate molecule in place of oxygen, and infants, especially the ones who drink infant formula and are under 4 months of age, are at the greatest risk of contracting the disease.

The disease occurs when infants ingest nitrates in concentrations of as little as 10 parts per million in their water. The DEIR/EIS fails to consider nitrate impacts on the domestic drinking water wells in the shallow, perched water table of the Two Rock/Bloomfield/Valley Ford area which would inevitably result from wastewater storage and spraying, or from applications of newly required fertilizers on the so-called "high-tech" cultivated crops which the City proposes to impose on the landowners in the West County.]

[Likewise, the impact of pesticides, which would also be required for those "high tech" crops, have not been evaluated for their implications for the estuaries of the Gulf of the Farallones National Marine Sanctuary.] 067

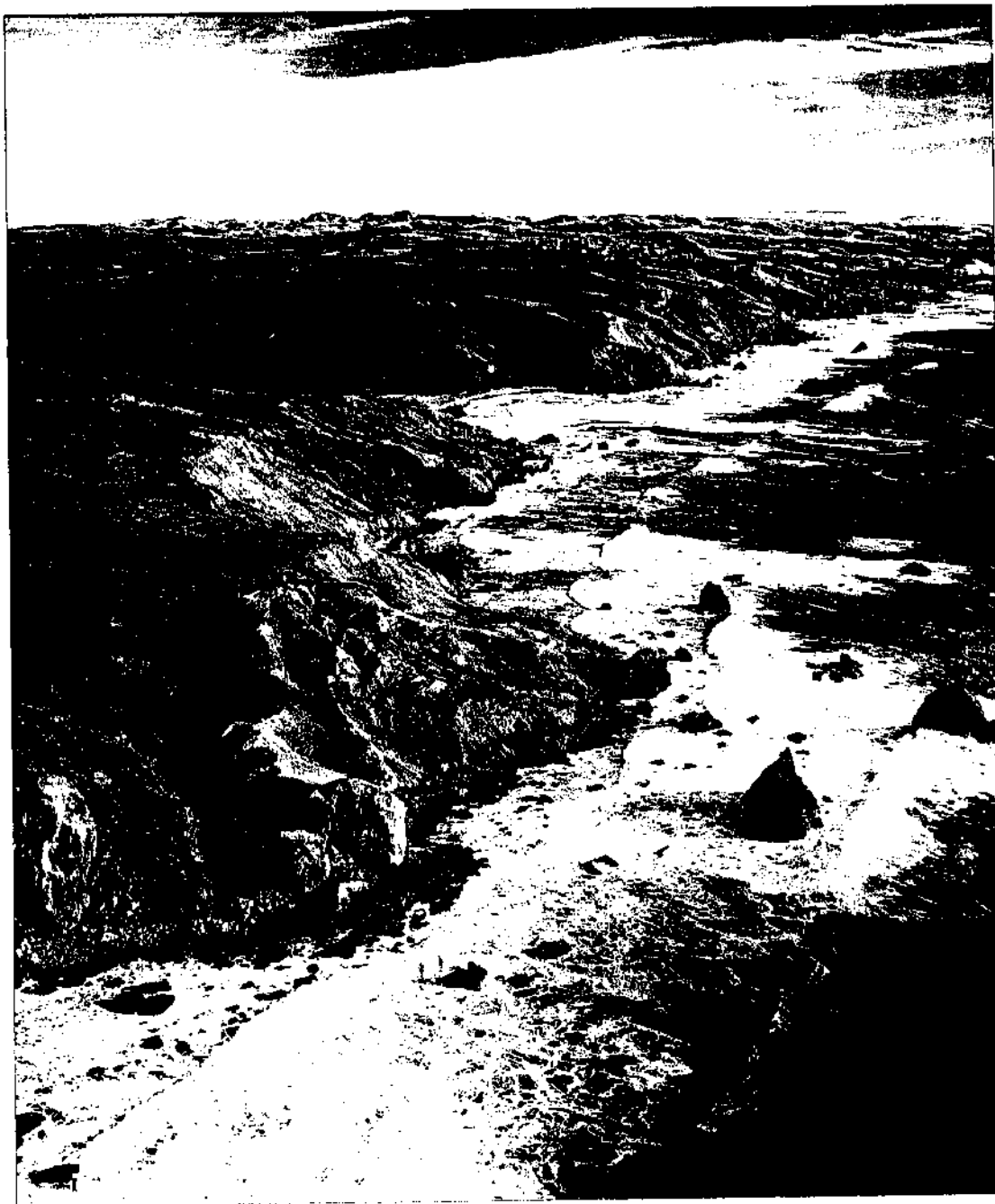
[This is but one example of significant deficiencies in the range of questions which have been asked by the preparers of the DEIR/EIS, not to mention the pitfalls for decisionmakers which have been created by the deceptively reassuring answers provided an approach the document which assures us that all impacts are either insignificant or can be mitigated.] 068

This "Don't Worry, Be Happy" approach does not provide for a DEIR/EIS 069 which is certifiable, or which offers us a reasonable look at the how the world around us works.

It is not enough to say that we know a lot if we don't employ our knowledge. We need to apply what we know, and to apply it in such a way as to tread lightly on our surrounding ecosystems.

We have before us a document which feeds the colonizing mind. But colonization is based on plunder and is inherently violent and wasteful, a fact that our civilization and our own community have been slow to acknowledge. The antidote to colonization is discovery. We need to discover how the world works to know better our place in it.

ATTACHMENT E



Tomales Bay / Bodega Bay Watershed Boundary Study

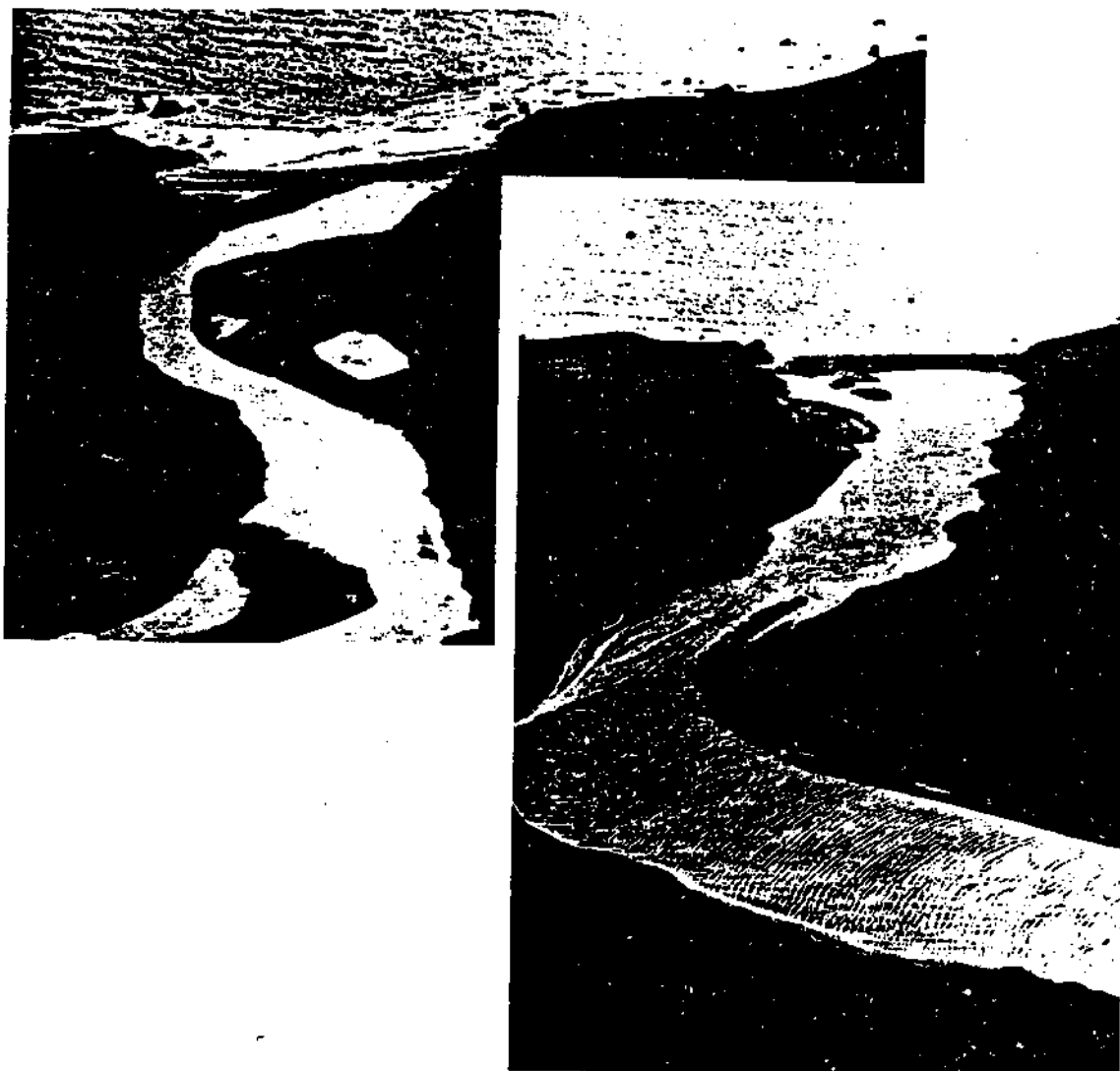
Point Reyes National Seashore
Marin and Sonoma Counties, California

July 1995

**The full text of this comment has become an exhibit to the
Final EIR Comments
and is available by contacting the City of Santa Rosa
Department of Community Development**

Attachment F

THE NATURAL RESOURCES OF ESTEROS AMERICANO AND DE SAN ANTONIO



STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
AUGUST 1977

Attachment F
Draft EIR/EIS Comments

COASTAL WETLANDS SERIES REPORTS:

- # 1 - Natural Resources of Upper Newport Bay
- # 2 - The Natural Resources of Goleta Slough
- # 3 - The Natural Resources of Bolinas Lagoon, Their Status and Future
- # 4 - The Natural Resources of Elkhorn Slough
- # 5 - The Natural Resources of San Diego Bay, Their Status and Future
- # 6 - The Natural Resources of Humboldt Bay
- # 7 - The Natural Resources of Los Penasquitos Lagoon
- # 8 - The Natural Resources of Morro Bay
- # 9 - Natural Resources of the Eel River Delta
- #10 - Natural Resources of Lake Earl and the Smith River Delta
- #11 - The Natural Resources of Bodega Harbor
- #12 - The Natural Resources of San Dieguito and Batiquitos Lagoons
- #13 - The Natural Resources of Carpinteria Marsh
- #14 - Natural Resources of the Coastal Wetlands of Northern Santa Barbara County
- #15 - The Natural Resources of the Nipomo Dunes and Wetlands
- #16 - The Natural Resources of Agua Hedionda Lagoon
- #17 - The Natural Resources of Mugu Lagoon
- #18 - The Natural Resources of Anaheim Bay-Huntington Harbour
- #19 - The Natural Resources of Napa Marsh
- #20 - The Natural Resources of Esteros Americano and de San Antonio

c

THE NATURAL RESOURCES
OF
ESTEROS AMERICANO AND
de SAN ANTONIO

Prepared by:

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Environmental Consultants

Assisted by:

James Swanson, Wildlife Biologist
Region 3, Department of Fish and Game

Under Contract to:

California Department of Fish and Game

E. C. Fullerton, Director
John Speth, Planning Branch
Bruce Browning, Coastal Wetlands Program Coordinator

Coastal Wetland Series #20

August 1977



Estero Americano



Estero de San Antonio

(Calif. Dept. of Fish & Game
photos by John Speth)

ACKNOWLEDGEMENTS

This report has been prepared by Madrone Associates, environmental consultants under contract to the California Department of Fish and Game. Individual consultants involved in report preparation are listed following the Bibliography. Preparation of the report has involved the cooperation of many individuals, most especially the personnel of the Yountville (Region 3) Fish and Game office. Madrone Associates wishes to thank biologists Jim Swanson and Gil Thomson for their help throughout the report preparation and John Speth, Planning Branch, for his review. Seasonal aids, Sally Sample, Tom Studley, Michael Fontana, and Craig Thomsen conducted field studies in 1976 on area vegetation and wildlife.

The numerous persons who provided information included in this report are named in the list of Persons Contacted following the Bibliography. These include many representatives of public agencies, education institutions, and interested individuals.

Reviewers' comments have been appreciated and incorporated where appropriate. Coordination of this report and the coastal wetland studies program has been enthusiastically and understandingly conducted by Bruce Browning, Department of Fish and Game.

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INTRODUCTION

Two of California's most interesting coastal wetlands usually go unnoticed by the general public because there is no access from main roads. They lie within the rolling hills of coastal Marin and Sonoma counties and contain marine, freshwater and brackish water habitats in a setting of upland, terrestrial habitats that make them unique among coastal wetlands.

Unlike many other wetlands along the coast of California, the Esteros Americano and de San Antonio are relatively undisturbed and, hence, retain much of their pristine resources values. Private ownership of the lands immediately surrounding these areas has assured restricted use. However, increasing pressures from encroaching coastal home subdivisions and increasing costs associated with coastal farming are now forces which threaten these invaluable wetland areas. The value and ecological importance of the natural resources of these esteros take on even greater significance when it is recognized that more than two-thirds of California's original coastal wetlands already have been reclaimed, degraded or otherwise destroyed.

One of a Coastal Wetland Series, this report is a synthesis of information accumulated on wetland areas of which little was known until the last two decades. It is hoped that the knowledge herein will aid local and state agencies and governments in their efforts to create sound plans for the preservation, management and wise use of the natural resources of the esteros; and, at the same time, to perpetuate the present uses of the surrounding agricultural lands which also are becoming a threatened resources in northern coastal California.

This report, then, will: 1) document the natural resources of the Esteros Americano and de San Antonio; 2) substantiate uses of those resources; 3) discuss problems and conflicts of existing and

potential uses as they affect the resources; and 4) recommend measures to protect, maintain and enhance these important wetland resources.

SUMMARY

The Esteros Americano and de San Antonio are similar coastal estuaries located on Bodega Bay, north of San Francisco. Their adjacent watersheds drain about 6,800 acres of rolling hills in northern Marin and southern Sonoma counties, most of which is included in the California Coastal Zone, as defined by the Coastal Act of 1976.

The esteros are unique in comparison to other coastal wetland areas. Originally formed from "drowned river valleys", the esteros have steeply sloping hillsides and the abrupt transition from uplands to open water results in a fjord-like quality that is not seen in other California wetlands. Open waters of the Estero Americano inundate about 300 acres and wetland habitats extend over an additional 400 acres. The smaller Estero de San Antonio includes about 90 acres of open water and over 200 acres of wetland habitats. The esteros may best be called "seasonal estuaries" due to the periodic formation of sand bars which close their connection with the ocean. Mild, foggy summer days, cooler nights and winter rainfall produce typical northern California coastal weather.

The esteros area was first inhabited by the Coast Miwok, emigrants from the Miwok of the Sierra Nevada foothills. Their existence was dependent upon local hunting and fishing until trade was initiated with neighboring Pomo Indians. In the late 1700's, the area was dominated by the Spanish. Illegal poaching of the sea otter in Spanish preserves in the early 1800's led to short-lived Russian settlements along the north coast. By the mid-1800's, with the settlement of the Bodega Bay area by U. S. citizens, agriculture began in the form of potato farming, dairying, and livestock grazing. Use of the land today is limited primarily to dairying and livestock grazing.

Fourteen local associations of plants and animals have been identified as habitat types within the esteros' watersheds, reflecting the large spectrum of environmental variables common to estuaries, and

the fact that the estuaries involved are in relatively healthy condition. Major habitats include open water, seasonal brackish marsh, California annual type grassland, coastal prairie, and coastal scrub.

Vegetation of the open water habitat consists primarily of micro- and macroscopic algae and some highly adapted flowering plants, such as eel grass. Seasonal brackish marshland appears similar to a typical tidal marsh community in the winter and spring, when the mouths of the esteros are not blocked. Pickleweed is the major vegetation of this community.

The overwhelming majority of upland areas surrounding the esteros supports "California annual type" grassland. The grasses dominating this habitat type are introduced annuals from Europe. Where minimal grazing has occurred, the original coastal prairie community exists, dominated by perennial bunch grasses. Prime examples of coastal prairie are found south of the mouth of Estero de San Antonio and on steep slopes of the uplands, coastal scrub community is found. Special habitats within the esteros, each small in area but important for species diversity, include mudflats, vernal pools, intermittent streams, coastal strand, and freshwater marshes, ponds and seeps.

The variety of environmental conditions present in the several habitat types results in a high diversity of associated animal species. The diverse habitats of the esteros each have distinctive wildlife species associations, and provide food, water and resting area for local and migrant birds, mammals, reptiles and amphibians. Seventy-one species of water- and marsh-related birds and sixty-six species of terrestrial birds have been observed in the esteros area. Monthly observations indicate the importance of the esteros to migrating and wintering birds as well as to year-round residents. Surveys of fish species are equally impressive, identifying 31 marine and freshwater species in the two esteros. Greatest species abundance and diversity are located at each estero mouth.

The relatively substantial bird and fish populations are due in part to the abundant marine invertebrates inhabiting the mudflats,

eel grass beds, and channel bottom or "benthos" of the two esteros. Surveys of invertebrate populations are far from complete, but segmented marine worms, shrimp, crabs, clams, mussels and starfish have been observed in great numbers. Importance of the open water habitat of the esteros is increased by their use as nursery grounds for fish and large invertebrate species, such as the Dungeness crab.

The State of California, acting through the State Lands Commission, is the owner of all tide and submerged lands in Estero Americano and Estero de San Antonio. Watershed lands adjacent to the esteros are privately owned thus limiting public access. Private land owners are under pressure from surrounding urban developments to abandon dairy farming which is becoming less and less profitable due to increasing property taxes and depleted and expensive water supplies.

Non-appropriative use of the esteros' natural resources has been restricted to nature study by landowners and their guests and limited educational/scientific study by staff and students of Bay Area universities and colleges. A lack of access has restricted the appropriative uses of hunting and fishing to private land owners and/or their permitted guests. Appropriative use has declined over the last several decades.

Major problems threatening existence of Esteros Americano and de San Antonio as they are today include encroachment by urban development and degradation of water quality. Northwest of the mouth of Estero Americano, and south of the mouth of Estero de San Antonio, are coastal subdivisions of immediate threat to the esteros lands. Water quality problems have resulted from improper agricultural practices producing runoff and increased sedimentation. In response to federal water quality regulations, the North Coast Regional Water Quality Control Board in conjunction with the Soil Conservation Service has begun a local program to eliminate point and non-point source discharges which have been degrading the quality of the esteros waters. The effectiveness of this program to date indicates the likelihood of non-polluted esteros water in a few years.

Since the watersheds of both esteros are included in the California Coastal Zone, by statute local plans are required for their future use. Recognition of the esteros' unique qualities, and awareness of the land uses which are compatible with those qualities, is essential to the establishment of appropriate and adequate plans for the future of these invaluable natural resources.

RECOMMENDATIONS

The fjord-like Esteros Americano and de San Antonio are unlike any other coastal wetlands in California or along the entire Pacific Coast. Due to lack of access, these seasonal estuaries have remained in a relatively undisturbed state. They possess significant fish and wildlife values and high aesthetic values. In order to preserve, maintain and enhance the natural resources of these valuable and unique areas, the Department recommends that:

1. The tide and submerged lands of the Esteros Americano and de San Antonio be acquired by the Department and designated as ecological reserves. The surest way to protect the wildlife and aquatic organisms and specialized habitat types that occur in these ecologically sensitive and fragile wetlands is to place them in an ecological reserve. Reserve status would not prevent existing uses, such as hunting, fishing, boating, birdwatching, and educational and scientific use, unless such activities became inimical to the natural resources of the esteros. Acquisition would entail transfer or lease to the Department of those lands now under State Lands Commission jurisdiction. A North Central Coast Coastal Commission report has recommended that the esteros be designated as an ecological reserve (Connors and Chime, 1975).

2. Land uses within the watersheds of both esteros be restricted to those that are compatible with maintenance of viable natural resources in both wetlands. Implementation of this recommendation will be accomplished by local governments in "developing local coastal programs" required by the Coastal Act of 1976. Virtually all of the watersheds of both esteros lies within the "coastal zone" (Plate 2) as defined by this 1976 legislative act. The Department recognizes the esteros and portions of their watersheds as "sensitive coastal resource areas", as defined by the Act, and that they require special consideration in the development of the "local coastal programs." This consideration should

include a stipulation of no development in the watersheds west of Franklin School Road and general zoning of most of the watersheds to open space and/or agricultural land.

3. Special attention be given to the monitoring and control of nonpoint discharges to surface waters of the esteros. Recent programs of the local Regional Water Quality Control Board, in cooperation with local dairymen associations and county administrators are rapidly bringing point source discharge problems into control. Further effort is needed in solving the problem of and monitoring nonpoint sources. Water quality is a real problem at the esteros when the mouths remain closed over a period of two or more dry seasons.

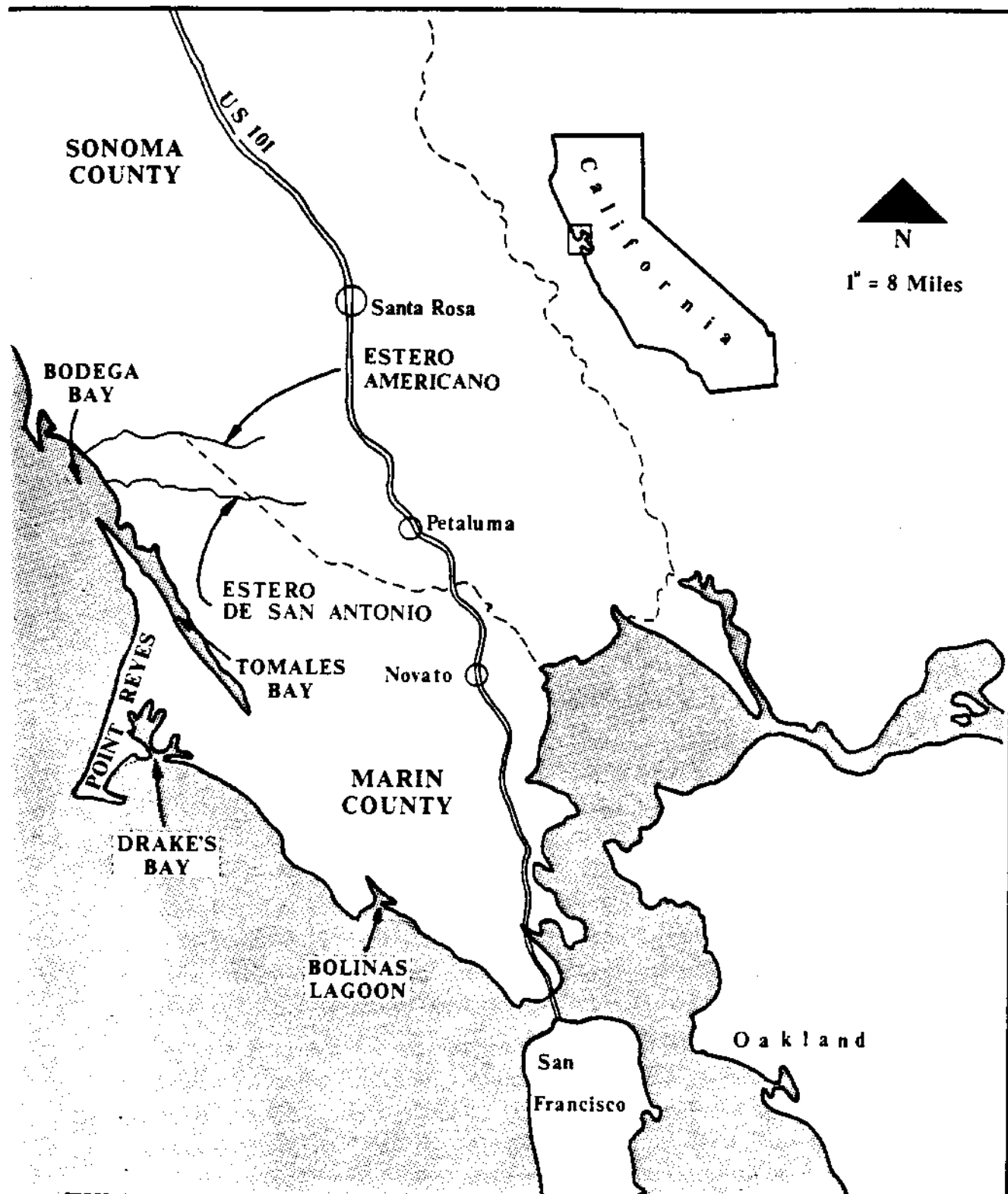


PLATE #1:

**Esteros Americano & De San Antonio
& Vicinity**

ESTEROS AMERICANO AND DE SAN ANTONIO
AND ENVIRONS

PHYSICAL FEATURES

Esteros Americano and de San Antonio are coastal estuaries located north of San Francisco, California (Plate 1). Separated by 12 square miles of rolling coastal hills, they are unique variations of the typical linear estuaries of California.

This unique character is due to the formation of a sand bar at the mouth of each estero during the late spring and summer months. Winter rainfall runoff keeps their mouths flooded and open; tidal influence ranges for three to four miles upstream, approximately half the length of each estero. But in summer and early fall when the inflow of fresh water is small, a sand bar forms at the mouth of each. Tidal influence is eliminated, and evaporation is high, sometimes resulting in a hypersaline estuary with salinities far above that of the ocean.

Estero Americano forms a portion of the northerly boundary between Marin and Sonoma counties. It originates in the sole tributary of Americano Creek and winds amongst low rolling hills for seven miles to its mouth south of the town of Bodega Bay. Containing approximately 301 acres of open water, the estero varies in width from 2 feet to 440 yards, but remains a constant shallow depth of 6 to 13 feet. Wetland habitats which include mudflats, seasonal brackish marsh and freshwater marsh cover approximately 412 acres of the Estero Americano watershed (Plate 2).

Estero de San Antonio lies in the northern two miles of Marin County, entering Bodega Bay just north of Dillon Beach and Tomales Bay. Near the small community of Fallon, Stemple Creek becomes the estero and flows about seven miles to the west, crossing State Highway 1, Middle Road, and Franklin School Road on its way to the