

Salinas Valley Water Coalition



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Transmitted via Email

Mr. Paul Murphey
Division of Water Rights
State Water Resources Control Board
P. O. Box 2000
Sacramento, Ca 95812-2000

May 3, 2013



Re: Comments on MPWSP Draft Report (Draft Report)

Dear Mr. Murphey;

Salinas Valley Water Coalition (SVWC) has operated 20 years to specifically address our local water issues. SVWC and its members have actively supported the development of water projects within the Salinas Valley. Two reservoirs, the Castroville Seawater Intrusion Project, the Salinas Valley Reclamation Project and the Salinas Valley Water Project (SVWP) have all been approved and funded (over \$352,000,000.00) by the Salinas Valley landowners and ratepayers, in an effort to sustain and manage our basin's water resources and to address its overdraft problem and resultant seawater intrusion problem.

We have worked with our neighbors and other organizations to resolve our differences so these projects could be successfully financed and implemented. We have made significant progress on our basin's water problems, but we are not finished – we still have an overdrafted basin and seawater intrusion continues to advance into the Salinas Valley Groundwater Basin (SVGB). The overdraft is stable; additional intrusion is substantially reduced. However, the Monterey Peninsula Water Supply Project (MPWSP) as proposed threatens that stability and the security of these water resources and water rights. The northern part of our SVGB still has significant water resource problems and these needs must be addressed and not further exacerbated.

The Salinas Valley Groundwater Basin is an overdrafted basin in which coastal farming enterprises are already threatened by saltwater intrusion. There is no "surplus" of groundwater available for appropriation by Cal-Am for the MPWSP, and pumping by Cal-Am from the 180-foot aquifer for its proposed project would harm the overlying water users with superior claims. It would export water from the Salinas Valley Groundwater Basin for use elsewhere, in contravention of both California groundwater law and Monterey County Water Resources Legislative Act (California Water Code Chapter 52, Section 21).

We appreciate the opportunity to comment on the SWRCB's Draft Report on the MPWSP, and we appreciate your review of the issues and recognition of the potential harm this project could have on the SVGB.

Mission Statement: The water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin. The management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

Technical Comments:

A. We agree with you that “additional information is needed to accurately determine MPWSP impacts on current and future Basin conditions regardless of whether the extraction occurs from pumped or gravity wells.”¹

We also agree with you in that specific information is needed on the depth of the wells and aquifer conditions; studies are needed to determine the extent of the Dune Sand Aquifer, the water quality and quantity of the Dune Sand Aquifer, the extent and thickness of the SVA and the extent of the 180-foot aquifer, and the effects/impacts of the proposed MPWSP on the SVGB. The direct testimony of Mr. Timothy Durbin on behalf of the SVWC to the Public Utilities Commission² said that the uncertainty surrounding the MPWSP must be reduced by conducting a thorough hydrologic investigation. He further stated that such an investigation would consist of five parts as follows:

1. Additional site-specific work is needed to define the thickness and extent of the 180-foot aquifer, overlying aquitard, and dune deposits. Especially important are identifying the onshore and offshore extent, thickness, and continuity of the aquitard overlying the 180-foot aquifer, and defining the hydraulic connections among the 180-foot aquifer, overlying aquitard, and dune deposits. The hydrogeologic investigation will require the compilation and analysis of existing hydrogeologic information, the construction of new boreholes, and perhaps conducting geophysical surveys. The number of boreholes must be sufficient to construct at least three hydrogeologic cross section perpendicular to the Monterey Bay shore: through the project site, immediately north of the site, and immediately south of the site. At least nine boreholes into the 180-foot aquifer would be required. Whether the proposed pumping from the 180-foot aquifer or the dune deposits will have adverse impacts will depend largely on the details of the actual hydrogeologic setting.
2. An understanding of the seawater-intrusion mechanisms must be developed. Historical seawater intrusion has occurred by some combination of the mobilization of naturally occurring seawater within the groundwater system, pumping-induced vertical leakage from Monterey Bay into the groundwater system, extrusion of naturally occurring seawater within the aquitards deposited as lagoonal sediments, and other mechanisms. The collection and analysis of geochemical and other information will be required to identify details of the seawater-intrusion processes. Whether the proposed pumping from the 180-foot aquifer or the dune deposits will have adverse impacts may depend significantly on the actual processes that will be activated by the proposed pumping.
3. Large-scale aquifer tests will be needed to supplement the hydrogeologic and seawater-intrusion investigations. As long as wells in both the dune deposits and 180-foot aquifer are considered as primary or contingency water supplies, separate tests must be conducted with pumping from the 180-foot aquifer and the dune deposits. The tests need to include monitoring wells within the 180-foot aquifer, the overlying aquitard, and the dune deposits. The pumping rates and test durations must be sufficient to identify processes that will be activated by the full implementation of the proposed water-supply

¹ SWRCB Draft Review of MPWSP, dated April 3, 2013, pg 42

² PUC Evidentiary Hearings, SVWC Exhibit SV-3: Technical Memorandum No. 2 by Timothy Durbin, February 21, 2013.

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pumping. This could involve pumping for a year or more. However, a shorter duration might be sufficient for pumping from the dune deposits. The tests should be designed with respect to pumping rates, observation-well placement, and test duration using a groundwater model to predict the expected response of the groundwater system during the test and to evaluate the identifiability of critical hydraulic characteristics of the groundwater system.

4. A local groundwater model must be developed that represents the essential elements of the groundwater system onshore and offshore along Monterey Bay. The model must simulate both groundwater flow and solute transport. The model must represent the hydrologic setting, including the thickness and extents of the dune deposits, 180-foot aquifer, 400-foot aquifer, and deep aquifer, and the intervening aquitards. The model must represent the hydraulic characteristics of the groundwater system, and it must represent the seawater-intrusion process active within the groundwater system. The development of an adequate model may require simulating the effects of water density on the hydrodynamics of the groundwater system. The boundary and initial conditions for the local model should be derived from SVIGSM. However, the simulation run on the SVIGSM must represent a realistic representation of baseline conditions. The appropriate baseline condition is for the continued operation of the CSIP project without additional acreage. An expansion of CSIP is not in place or envisioned at this time, and it is not an appropriate or realistic depiction of baseline conditions for analyzing the potential impacts of the CalAm proposal. The proposed CalAm pumping must be simulated for a finite period, and an extended post-project period must be simulated.
5. The modeling results for both the primary and contingency proposal must be subjected to a thorough sensitivity analysis. The modeling results will unavoidably always contain uncertainty, even though the objective of the modeling exercise and supporting investigations described above will be to minimize the uncertainty. The sensitivity analysis will quantify how the modeling results might change with different assumptions about the hydrogeologic setting, seawater intrusion processes, and the hydraulic characterization of groundwater system.

We believe your recommendation in the Draft Report is consistent with these proposed five steps. During his cross-examination, Mr. Durbin also discussed a proposed 'work plan' and schedule for completing the investigations, as shown below:

Study Schedule for Work Described in Durbin Exhibit SV-3

Task	Work Element	Month																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
1	Hydrogeologic Investigation	■																								
2	Geochemical investigation		■																							
3	Aquifer Testing ¹																									
	Design			■	■	■	■																			
	Constructing Test Monitoring Wells Testing						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
4	Model Development and Use				■																					
5	Sensitivity Analysis																							■		

¹Aquifer test duration will be 1-12 months depending on duration required to identify process that will be activated by project. Schedule shows a 6-month testing period. If a different period is required, the schedule would be adjusted accordingly.

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These studies must be completed to provide a thorough analysis of the potential impacts to the SVGB, its landowners and ratepayers. These studies must be completed regardless of where in the SVGB the proposed wells will be located and whether the extraction will be from pumped or gravity wells. This issue is a 'fatal flaw' for the MPWSP and must be identified as quickly and efficiently as possible.

Cal-Am has proposed some alternatives, such as the Potrero Road site, should their proposed location at the Cemex site not work. The Potrero Road site is still within the SVGB and therefore, the same level and extent of hydrogeologic investigation discussed above must be completed in order to show the level of potential impact to the SVGB.

B. Legal Comments:

We support your legal conclusion that "the burden is on Cal-Am to show no injury to other users."³ However, we believe the discussion pertaining to your legal conclusions fails to adequately consider two key legislative enactments specific to the Salinas Valley Groundwater Basin. These must be considered when determining any impacts to current and future Basin conditions and users. In order for Cal-Am to prove no injury to current and future users, these enactments must be included in that evaluation:

1. MCWRA Agency Act, Water Code Chapter 52, Section 21.

"Sec. 21. Legislative findings; Salinas River groundwater basin extraction and recharge. The Legislature finds and determines that the Agency is developing a project which will establish a substantial balance between extraction and recharge within the Salinas River Groundwater Basin. For the purpose of preserving that balance, no groundwater from that basin may be exported for any use outside the basin, except that use of water from the basin on any part of Fort Ord shall not be deemed such an export. If any export of water from the basin is attempted, the Agency may obtain from the superior court, and the court shall grant, injunctive relief prohibiting that exportation of groundwater."

This legislation was established to give Monterey County and particularly the Salinas Valley tools and resources to address water resource issues; most particularly the chronic problem of salt water intrusion in the Salinas Valley Groundwater Basin that was and continues to be a decades-long issue of major local, regional and statewide concern. This legislation specifically prohibits the export of ANY groundwater from the Salinas Valley. This legislative act and expression of protection for the SVGB underscores the need that any proposed action/project must be consistent with protection of the Salinas Valley Groundwater Basin – AND must show that there is no exportation of groundwater from the SVGB.

2. Monterey County Water Resources Agency Ordinance No. 3709⁴.

This Ordinance, which is attached for your convenient reference, was adopted by MCWRA on September 14, 1993. The ordinance **prohibits the extraction of groundwater** from groundwater extraction facilities that have perforations between zero feet mean sea level and -250 feet and are located within the territory between the City of Salinas and Castroville. It also prohibits the drilling of **any new wells** with perforations between zero feet mean sea level and -250 feet in the portion of the pressure Area north of Harris Road to the Pacific Ocean.

³ SWRCB Draft Review of MPWSP, dated April 3, 2013, pg ii

⁴ Attachment #4

Mission Statement: The water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin. The management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

This Ordinance remains in place today and is known as the ordinance that prohibits pumping in the **180 foot aquifer**. This is an important piece of information for the SWRCB's record and for the public to understand, as it shows that no well in the northern part of the SVGB can legally pump water from the 180 foot aquifer, and demonstrates the existing public policy of protecting Salinas Valley's 180 foot aquifer. And yet, this is potentially what Cal-Am is proposing to do – something that is prohibited to legal overlying landowners.

The ordinance includes the attached map delineating the boundary of the territories subject to the prohibition. It should be noted that the Ordinance was adopted in 1993, three years prior to the annexation of certain lands that have subsequently been recognized as part of the SVGB and are now included as such as part of Zone 2C.

Zone 2C was defined based on geological conditions and hydrologic factors, which defined and limited the benefits derived from the reservoirs and the proposed changes to the operations, storage, and release of water from the reservoirs. As the Map⁵ shows, Zone 2C is essentially the Salinas Valley Groundwater Basin (SVGB) extending from the most southern Monterey County border up to the Monterey Bay. It also includes all of the former Ft. Ord area and up to the Elkhorn Slough in Moss Landing.

This area is critical to any hydrological analysis and consideration of the potential impacts to the SVGB, and proof of no injury to water users within the Basin. Cal-Am's proposed slant well sites are located just adjacent to the southern and northern coastal boundary – just on the 'other side' of the line. Their proposed well sites may not technically be subject to this Ordinance, but they remain within the SVGB and Zone 2C, and have the potential to affect them.

As your Draft Report notes, Basin conditions may change in the future so that the seawater intrusion front moves seaward. If this occurs the MPWSP may then be extracting a higher proportion of freshwater from its wells. Any legal or technical analysis must also consider this potential future impact to the SVGB and its water users, including impacts to landowners' ability to utilize their overlying groundwater rights.

The Salinas Valley Groundwater Basin is an overdrafted basin in which coastal farming enterprises are already threatened by saltwater intrusion. There is no "surplus" of groundwater available for appropriation by Cal-Am, and pumping by Cal-Am from the 180-foot aquifer for its proposed project would harm the overlying water users with superior claims. It would export water from the Salinas Valley Groundwater Basin for use elsewhere, in contravention of both California groundwater law and Monterey County Water Resources Legislative Act (California Water Code Chapter 52, Section 21).

SVWC wants the Peninsula to be successful in securing its water needs. But those needs cannot be met at the expense of degradation to the Salinas Valley Groundwater Basin. Those who steward the SVGB--water right holders, users and ratepayers—will diligently work to assure that the basin's resources are conserved. The communities and ratepayers of the Salinas Valley have spent over \$352,000,000.00 to build two reservoirs as well as the

⁵ Attachment #5 Map as shown in Engineers Report To Support an Assessment for The Salinas Valley Water Project of the Monterey County Water Resources Agency, RMC, January 2003

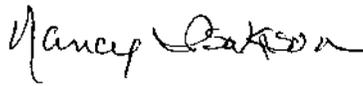
Mission Statement: The water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin. The management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

Castroville Seawater Intrusion Project, the Salinas Valley Reclamation Project and the Salinas Valley Water Project to solve the basin's water problems. Stakeholders have worked as neighbors to resolve their differences so these projects could be successfully financed and implemented.

Cal-Am's proposed project for the Monterey Peninsula puts a 'straw' into the Salinas Valley Basin and potentially in the 180-foot aquifer, which is the aquifer most vulnerable to seawater intrusion. They should not be allowed to put the stability and security of these water resources and water rights at risk. We ask the State Water Resources Control Board to acknowledge the validity of our concerns and to support our request that Cal-Am move its pumping out of the Salinas Valley Groundwater Basin.

We thank you for your consideration of our concerns.

Sincerely,

A handwritten signature in black ink that reads "Nancy Jackson". The signature is written in a cursive style with a large initial "N".

President, Salinas Valley Water Coalition

W/ Attachments

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Monterey County
Water Resources Agency

Ordinance No. 3709

AN ORDINANCE OF
THE MONTEREY COUNTY WATER RESOURCES AGENCY
PROHIBITING GROUNDWATER EXTRACTIONS AND
THE DRILLING OF NEW GROUNDWATER EXTRACTION FACILITIES
IN CERTAIN PORTIONS OF THE PRESSURE 180 FOOT AQUIFER
AFTER JANUARY 1, 1995

County Counsel Summary

After January 1, 1995, this ordinance prohibits the extraction of groundwater from groundwater extraction facilities that have perforations between zero feet mean sea level and -250 feet and are located within the territory between the City of Salinas and Castroville, bounded by Highway 183 and the dividing line between the Pressure Area and the East Side Area. After January 1, 1995, it also prohibits the drilling of new wells with perforations between zero feet mean sea level and -250 feet in the portion of the Pressure Area north of Harris Road to the Pacific Ocean. It provides a variance procedure in case of hardship and penalties for violations.

The Board of Supervisors of the Monterey County Water Resources Agency ordains as follows:

SECTION 1. The following provisions are hereby enacted:

PART I -- INTRODUCTION

1.01.00 AUTHORITY

Under the Monterey County Water Resources Agency Act (Stats. 1990, Chap. 1159), the Agency has jurisdiction over matters pertaining to water within the entire area of the County of Monterey, including both incorporated and unincorporated areas. Under the Act, the Agency is authorized to conserve water in any nanner, to prevent the waste or diminution of the water supply within the territory of the Agency, to conserve water for the present and future use within the territory of the Agency, and to prevent groundwater extractions which are determined to be harmful to the groundwater basin. The Agency may further adopt, by ordinance, reasonable procedures, rules, and regulations to

(NOMO180.ORD -- 9/14/93)

implement the Act, and may specify in any ordinance that a violation of the ordinance is an infraction. The Board further has power to perform all other acts necessary or proper to accomplish the purposes of the Act.

1.01.01 FINDINGS

A. Groundwater supplies in the Salinas Valley basin are being diminished in both quantity and quality. This inability to maintain a constant, usable water supply is due to historical overdraft, increases in demand, lack of new water supplies, and contamination of the existing supply.

B. Increases in demand have come from all sectors of the Salinas Valley -- agricultural, residential, industrial, commercial, and others. These increases in demand, coupled with the recent six year drought, have exacerbated water quality impacts and significantly accelerated overdraft.

C. Even without drought, overdraft of the groundwater basin is a constant problem; it depletes the existing water supply and contributes to the intrusion of seawater into the basin along the coast.

D. The location of the seawater intrusion front poses an imminent threat to the municipal water supply for the City of Salinas and to farming operations in the lower Salinas Valley. Restrictions on groundwater pumping are necessary in order to reduce the rate of seawater intrusion and allow recharge to raise groundwater levels. Seawater intrusion is most extensive in the Pressure 180 Foot Aquifer and threatens to contaminate lower aquifers which supply drinking water to thousands of Salinas Valley residents. Because of the extent of seawater intrusion in and near these areas, further extraction of groundwater from the water-bearing strata between zero feet mean sea level and -250 feet, within the territory defined in Section 1.01.03.D of this ordinance, would be harmful to the groundwater basin.

1.01.02 PURPOSE

It is the purpose of this ordinance to prohibit groundwater extractions from extraction facilities located in the northern Salinas Valley with perforations between zero feet mean sea level and -250 feet as of January 1, 1995, so as to reduce the rate of seawater intrusion and allow recharge to raise groundwater levels.

1.01.03 DEFINITIONS

A. AGENCY shall mean the Monterey County Water Resources Agency.

(NOMO180.ORD -- 9/14/93)

B. GROUNDWATER EXTRACTION FACILITY ("Facility") shall mean a groundwater well or facility for the extraction of groundwater which employs a motor-driven pump for the extraction of groundwater and which has a discharge pipe with an inside diameter equal to or greater than 3 inches.

C. PERSON shall mean an individual; a sole proprietorship, corporation, partnership, association, trust, or any other form of business or non-profit entity; or a city, county, state, the United States, or any other federal, state, local or foreign government entity.

D. TERRITORY A shall mean that portion of the northern Salinas Valley bounded by Highway 183 (beginning at Blackie Road) to Davis Road to Laurel Drive to Highway 101 to the Pressure-East Side boundary to Blackie Road back to Highway 183, as more particularly described in Attachment A. The boundary between the Pressure and East Side Areas is described on a map on file with the Clerk of the Board of Supervisors and in the office of the Monterey County Water Resources Agency.

E. TERRITORY B shall mean that portion of the northern Salinas Valley bounded by Highway 183 (beginning at Blackie Road) to Davis Road to Laurel Drive to Sanborn Road to Highway 101 to Harris Road to Zone 2A boundary to Potrero Road to Highway 1 to Highway 183 to Blackie Road, as more particularly described in Attachment B.

F. WATER REPORTING YEAR shall be from November 1 to October 31 of the following year.

G. WATER SUPPLIER shall mean a person who owns or operates a groundwater extraction facility.

H. WATER USER shall mean a person who receives water from a groundwater extraction facility for consumptive use.

PART II -- PROVISIONS

1.01.10 GROUNDWATER EXTRACTIONS PROHIBITED IN TERRITORY A

After January 1, 1995, no person may cause, suffer, or permit the extraction of groundwater from any groundwater extraction facility located in territory A, as defined in Section 1.01.03.D, with perforations between zero feet mean sea level and -250 feet.

(NOMO180.ORD -- 9/14/93)

1.01.11 NEW GROUNDWATER EXTRACTION FACILITIES PROHIBITED IN TERRITORY B

After January 1, 1995, no person may construct within territory B, as defined in Section 1.01.03.E, any groundwater extraction facility with perforations located between zero feet mean sea level and -250 feet.

1.01.12 REPORTING REQUIREMENTS IN TERRITORY A

Under Agency Ordinance No. 3663, every water supplier must submit to the Agency an annual groundwater extraction report, following the close of each water reporting year during any part of which the water supplier maintained an operational groundwater extraction facility. The annual report for the 1994-95 water reporting year submitted by each water supplier extracting water from territory A, regardless of the depth from which the water is extracted, shall show extractions for that part of the 1994-95 water reporting year prior to January 1; for that part of the 1994-95 water reporting year after January 1, the report shall accurately reflect no groundwater extractions from between zero feet mean sea level and -250 feet in territory A, as defined in Section 1.01.03.D.

1.01.15 VARIANCES

A. Any person may, at any time, apply in writing for a variance from the strict application of this ordinance. The application for the variance shall be filed with the Agency. The General Manager may dispense with the requirement of a written application upon finding that an emergency condition requires immediate action on the variance request.

B. The applicant shall submit an action plan within 30 days after the variance request is filed, describing how and when the applicant will comply with this ordinance without the need for a variance. Compliance with this plan, as presented by the applicant or as modified by the General Manager, shall be a condition of granting the variance.

C. The General Manager may grant a variance to the terms of this ordinance upon making the finding that the strict application of the ordinance would create an undue hardship, or an emergency condition requires that the variance be granted.

D. In granting a variance, the General Manager may impose any conditions in order to ensure that the variance is consistent with the overall goals of this ordinance. Variances may be granted for a limited period of time. The variance and all time limits and other conditions attached to the variance shall be set forth in writing,

(NOMO180.ORD -- 9/14/93)

and a copy of the written variance shall be provided to the applicant.

E. The decision of the General Manager on an application for a variance may be appealed as provided in the section of Ordinance No. 3539, as now in effect or as subsequently amended or superseded, pertaining to appeals.

F. No person shall operate or maintain a groundwater extraction facility or water distribution system for which a variance has been granted hereunder, or use water therefrom, in violation of any of the terms or conditions of the variance.

1.01.20 PENALTIES

A. Any person who violates any provision of this ordinance is guilty of an infraction.

B. Any violation of this ordinance is hereby declared to be a public nuisance.

C. Any violation which occurs or continues to occur from one day to the next shall be deemed a separate violation for each day during which such violation occurs or continues to occur.

D. Any person who violates this ordinance shall be assessed a fine of \$100 for each violation.

E. Any person who violates this ordinance shall be liable for the cost of enforcement, which shall include but need not be limited to:

1. Cost of Investigation
2. Court Costs
3. Attorney Fees
4. Cost of Monitoring Compliance

PART II -- CONCLUDING PROVISIONS

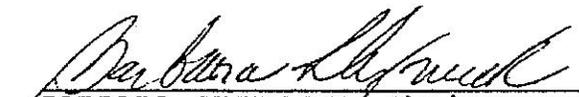
1.01.22 SEVERABILITY

If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by a decision of a court of competent jurisdiction, it shall not affect the validity of the remaining portions of this ordinance, including any other section, subsection, sentence, clause, or phrase therein.

SECTION 2. EFFECTIVE DATE. This ordinance shall take effect 30 days after its final adoption by the Board of Supervisors.

PASSED AND ADOPTED this 14th day of Sept., 1993, by the following vote:

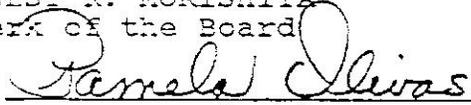
AYES: Supervisors Salinas, Shipnuck, Perkins, Johnsen & Karas
NOES: None
ABSENT: None



BARBARA SHIPNUCK, Chairwoman
Board of Supervisors

ATTEST:

ERNEST K. MORISHITA
Clerk of the Board

By 

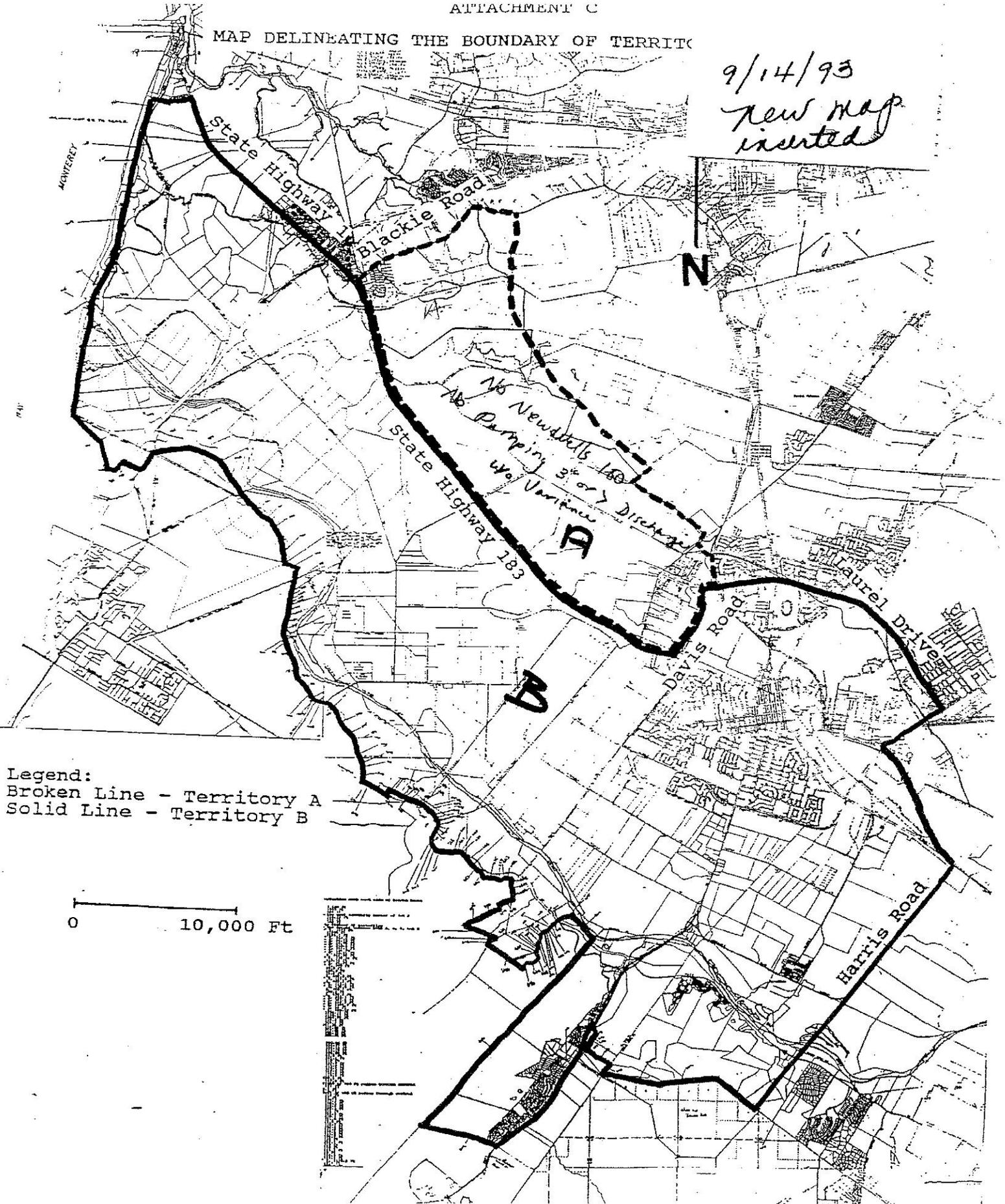
Deputy

(NOMO180.ORD -- 9/14/93)

ATTACHMENT C

MAP DELINEATING THE BOUNDARY OF TERRITORY

9/14/93
New map
inserted



Legend:
Broken Line - Territory A
Solid Line - Territory B

0 10,000 Ft

