



# County of Santa Cruz

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## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

ALVIN D. JAMES, DIRECTOR

February 6, 2000

AGENDA: February 15, 2000

Board of Supervisors  
 County of Santa Cruz  
 701 Ocean Street  
 Santa Cruz, CA 95060

### **PROGRESS REPORT ON ONGOING ACTIVITIES TO MITIGATE OVERDRAFT IN THE PAJARO VALLEY AND CONTINUED CONSIDERATION OF A DECLARATION OF A WATER EMERGENCY IN THE PAJARO VALLEY**

Members of the Board:

On October 5, 1999, your Board considered recommendations relative to a report on ongoing activities to mitigate overdraft in the Pajaro Valley. The October 5, 1999 meeting was also scheduled as a public hearing for the consideration of a declaration of a water emergency in the Pajaro Valley. At the conclusion of discussions, your Board accepted staffs recommendations which included a comprehensive report back on progress by the Pajaro Valley Water Management Agency (PVWMA) on matters of concern to your Board. Your Board also postponed further consideration of declaring a groundwater emergency in the Pajaro Valley groundwater basin to February 15, 2000, and directed the Clerk of the Board to provide appropriate notice of the public hearing. As previously directed, the findings regarding the basin overdraft and seawater intrusion are contained within the Resolution Declaring a Groundwater Emergency in the Pajaro Valley Groundwater Pursuant to Section 7.70.130 of the Santa Cruz County Code. If your Board chooses to proceed with the declaration of a water emergency in the Pajaro Valley, the Resolution Declaring A Groundwater Emergency and an Urgency Ordinance Relating to a Groundwater Management Program within the Pajaro Valley Groundwater Basin are included as Attachment 1.

Several matters were identified at the October 5, 1999 hearing as being of important concern to your Board. These matters included expanding water conservation, furthering local water supply projects, a possible ballot measure by the PVWMA directed at increasing fees to support expanded groundwater management, and interest regarding the preparation of additional reports which would further characterize the state of the groundwater basin and update the 1993 plan for managing the basins water resources. Progress on these matters is reported 'on in subsequent sections of this report.

## **Water Conservation**

As your Board may recall, staff recommended that your Board encourage the PVWMA to adopt an ordinance which would require mandatory filing of agricultural conservation plans. This practice is currently required of growers in the Salinas Valley in Monterey County. Your Board approved recommendations directing the Chair to write Monterey County and the PVWMA requesting that each Board consider supporting the mandatory tiling of agricultural conservation plans in the Pajaro Valley. Copies of these letters are included as Attachment 2.

Despite your Board's stated preference, the PVWMA Board, on December 15, 1999, approved voluntary rather than mandatory filing of agricultural conservation plans. It should, however, be understood that the PVWMA Board adopted Resolution 2000-03, Setting Policy on Agricultural Water Conservation Practices Questionnaire, on January 19, 2000. The Resolution resolves that, "In the event that the Agency does not receive a response sufficient to analyze the data for its groundwater management purposes within a reasonable time after the Questionnaire is distributed, the Agency may reconsider whether to re-distribute the Questionnaire after imposing a requirement that the Questionnaire information be provided on a mandatory basis." Copies of the Resolution and Questionnaire are included as Attachment 3. A review of the Questionnaire reveals it to be more comprehensive than the reporting requirements contained within the County's proposed Urgency Ordinance.

Recommended conservation programs were outlined for the PVWMA in a November 17, 1999 draft report entitled, Water Conservation 2000. It was additionally recognized in December that some year 2000 conservation activities should be initiated as soon as possible to be most effective. On December 15, 1999, the PVWMA approved funding for on-farm conservation surveys (ie ag conservation plans or questionnaire), new irrigation demonstration projects, and the preparation of grant funding applications. The full suite of conservation programs identified in the draft Water Conservation Plan 2000 was discussed by the PVWMA Board at their February 2, 2000 meeting. The implementation of conservation programs discussed is scheduled for action at the February 16, 2000 Board meeting albeit at a reduced level of implementation from what was recommended in the Plan.

The Water Conservation Plan 2000 recommends an aggressive, long-term conservation plan including both agricultural and urban components. The recommended level of expenditure for the agricultural component is about \$300,000. per year. The urban component would require additional expenditures, but these are not quantified in the report as there is an expectation for cost sharing with the City of Watsonville and other neighboring districts.

In reality, the PVWMA does not have a source of revenue to fund this level of conservation. Their augmentation fees cannot be used for conservation. Management fee revenues can be used for conservation. These revenues generate about \$330,000 per year, but they are already committed in full to administrative expenses and other non-project operational costs. PVWMA staff is proposing \$126,000 from management fee reserves to fund conservation activities this year. They also acknowledge that this level of spending cannot be sustained beyond year 2000 without securing additional conservation funding.

The year 2000 conservation programs includes four new agricultural water conservation demonstration projects, 30 new mobile lab irrigation evaluations, voluntary on-farm agricultural conservation plans and report preparation, agricultural education seminars, grant funding preparation, and computerized irrigation scheduling equipment and assistance. Detailed information on these agricultural programs and the proposed urban water conservation budget is included as Attachment 4. These combined programs, though reduced from those recommended in the Water Conservation 2000 plan, significantly expand the level of conservation activity which began in 1999.

### **Local Water Supply Alternatives Feasibility Study**

The requirement to study the feasibility of local water supply alternatives to mitigate overdraft in the Pajaro Valley was approved with the passage of Measure K in November 1998. The pertinent language of Measure K can be identified as follows: "The Agency shall conduct feasibility studies on implementing local measures within the District including : a) education and technical assistance to promote water conservation; b) tertiary treatment for irrigation water; and c) alternative local supply sources. The Agency shall report to the public on the results of these studies by December 1999." This report, released in draft form for public comment in December 1999, will also be a major component of the Basin Management Plan 2000 report.

Your Board may recall that the purpose of the Local Water Supply Project is to capture approximately 5,000 acre-feet of local surface water per year to supplement local groundwater supplies and reduce groundwater overdraft. The following three sites were selected because they are the most feasible, lowest cost local projects: 1) Diversion of water from Harkins Slough; 2) Diversion of Pajaro River flows near Murphy's Crossing; and 3) Use of water stored in and diverted from College Lake. The unit cost of project derived water from these sites ranges from approximately \$300 to \$400 per acre-foot and is considered to be affordable. Other local alternatives were considered in the Measure K report. The unit cost of water from other alternatives, however, ranged from \$1,300 to almost \$2,400 per acre-foot. Given the increased unit cost for water, studies involving the latter options were discontinued. Table I-1 from the Measure K report, Costs Summary - Local Water Supply Options, is included for your review as Attachment 5.

The Harkins Slough and Murphy's Crossing Projects are presently in final design and permitting stages and are on schedule to be constructed in the year 2000. These two projects go before the County's Planning Commission on February 9, 2000. The third local water supply project, the College Lake project site, has implementation problems associated with the Endangered Species Act and is additionally being considered by County staff as a possible flood control project site. The diminished yield, increased cost and scheduling problems associated with either use of the College Lake site will likely remove this site from further consideration as a local water supply project. Since the Harkins Slough project and the Murphy's Crossing project are anticipated to be completed this year, the PVWMA has had to develop some mechanism to ensure use of the newly developed water supply.

To accomplish this, the PVWMA is considering an ordinance to ensure use of the new water supply. At their February 2, 2000 Board meeting, the PVWMA gave conceptual approval to draft

Ordinance 2000-02, Establishing Regulation For The Classification And Operation Of Wells In The Local Supply Project Service Area. The Ordinance provides for the management of existing groundwater wells within the Local Water Supply Project Service Area following completion and start-up of the two local projects. The ordinance restricts pumping from groundwater wells in the service area so long as delivery yield and water quality standards are met, and it establishes procedures for the operation of wells in case of emergency or domestic supply needs. The \$5 million dollar loan application that the PVWMA has with the State Water Resources Control Board requires a demonstration that the PVWMA adopt an ordinance like the one discussed on February 2, 2000 or institute some other equivalent means to ensure use of the newly developed water supply.

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A copy of the draft ordinance is included for your review as Attachment 6. The PVWMA has now scheduled the ordinance for a public hearing on February 16, 2000 and as an action item on the March 1, 2000 agenda.

### **Other Forthcoming Reports and Management Activity**

Two other benchmark reports, the State of the Basin and the Basin Management Plan 2000, were initially scheduled for completion in January 2000. It is anticipated that these two reports will anchor groundwater management practices and policy for the next planning horizon. A January 2000 release date was planned to help the PVWMA inform their constituents if the Agency prepared a ballot measure for the March election which would address financing shortfalls for the local water supply projects. (Revenues from augmentation charges were cut in half by the passage of Measure D). As the PVWMA now intends to prepare a ballot measure for the November election, the January completion date of these two reports became less time sensitive.

The new anticipated completion date for the State of the Basin report is late February 2000. The anticipated completion date for the Basin Management Plan 2000 report is now sometime in April 2000. The information contained in these latter two reports was expected to be available for consideration at today's hearing. As these two reports are the cornerstones for future groundwater management activity in the Pajaro Valley, staff will be recommending a continuation of the public hearing until late Spring.

### **Conclusion**

As it is evident that the PVWMA is making considerable progress on matters discussed in this report, your Board has two potential courses of action to consider today. The first would be to continue the public hearing until May 23, 2000, after the scheduled completion and analysis of the reports. The second course would be to conclude your public hearing and discontinue proceedings to declare a groundwater emergency in the Pajaro Valley. Staff could support either approach but recommends continuing the public hearing.

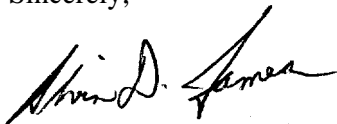
Staffs reasoning for supporting continuation of the public hearing is as follows. Another meeting including County officials and water staff from San Benito, Monterey, and Santa Cruz County and officials from the City of Watsonville is being planned. Although PVWMA adopted Resolution 2000-03, Setting Policy on Agricultural Water Conservation Practices Questionnaire, and this policy clearly moves the Agency toward mandatory filing of agricultural water conservation plans, if the voluntary response is poor, analysis of the returns from the voluntary survey will not be

available until April. Equally, PVWMA Ordinance 2000-02, Establishing Regulations For The Classification And Operation Of Wells In The Local Water Supply Project Service Area is the next step towards managing groundwater in the project service area yet it is still in the discussion stages and has not yet been approved. And lastly, completion of the State of the Basin report and the Basin Management Plan 2000 report will lay the foundation for additional groundwater management aimed at mitigating the overdraft in the Pajaro Valley but these key reports have not been completed in advance of today's hearing as was previously indicated to your Board at the October 5, 1999 public hearing.

It is therefore RECOMMENDED that your Board:

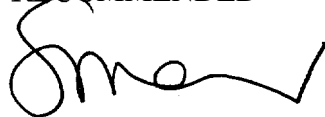
- 1) Accept and file this progress report on ongoing activities to mitigate overdraft in the Pajaro Valley; and
- 2) Continue the public hearing to consider declaring a groundwater emergency in the Pajaro Valley groundwater basin to May 23, 2000 on the morning agenda; and
- 3) Direct staff to provide a comprehensive report back to your Board on May 23, **2000.**

Sincerely,



ALVIN D. JAMES  
Planning Director

RECOMMENDED



SUSAN A. MAURIELLO  
County Administrative Officer

Blc/WRM00-01

#### Attachments

- 1) Santa Cruz County proposed Resolution and draft Urgency Ordinance
- 2) November 1, 1999 letters to Monterey County and Pajaro Valley Water Management Agency
- 3) Copy of PVWMA Resolution #2000-03 and Questionnaire
- 4) Copy of PVWMA proposed Water Conservation Implementation Plan for Year 2000
- 5) Table 1-1 from Measure K Report, Costs Summary - Local Water Supply Options
- 6) Copy of PVWMA proposed Ordinance #2000-02, Establishing Regulations For The Classification And Operation Of Groundwater Wells In The PVWMA Local Water Supply Project Service Area, To Protect The Pajaro Valley Groundwater Basin Against Further Seawater Intrusion

cc: Pajaro Valley Water Management Agency  
City of Watsonville  
County of San Benito  
County of Monterey

BEFORE THE BOARD OF SUPERVISORS  
OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA

0392

RESOLUTION NO. \_\_\_\_\_

On the motion of Supervisor \_\_\_\_\_  
duly seconded by Supervisor \_\_\_\_\_  
the following Resolution is adopted:

RESOLUTION DECLARING A GROUNDWATER EMERGENCY IN THE PAJARO  
VALLEY GROUNDWATER BASIN PURSUANT TO SECTION 7.70.130 OF THE SANTA  
CRUZ COUNTY CODE

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WHEREAS, section 7.70.130 of the County Code states that a groundwater emergency shall be declared in areas **demonstrated** to be experiencing a groundwater overdraft exceeding the safe yield in order to prevent **further** depletion and degradation of water resources where such degradation threatens the **public** health, safety and welfare of the community, and

WHEREAS, it has been documented in extensive past and current basin studies that the basin's **groundwater** supplies are being significantly impacted in the form of long-term overdraft and degradation of groundwater quality from the increasing influence seawater intrusion and nitrate contamination, and

WHEREAS, these findings were reiterated in the Pajaro Valley Water Management Agency's 1993 Basin Management Plan and **are** set forth below, and

WHEREAS, the Issues Fact Sheet which accompanied the Water Resources **Management** Report accepted by your Board on January 26, 1999 stated **the** above findings including that annual **pumpage** in the Pajaro basin is 65,000 acre-feet /year and that the safe yield of the basin is cited in the Basin Management Plan as 3 1,000 acre-feet/year under current pumping patterns and that the rate of seawater intrusion currently averages about 10,000 acre-feet during a normal year,

NOW THEREFORE BE IT RESOLVED, that the Santa **Cruz** County Board of Supervisors recognize the findings of the above mentioned reports relative to the existing problems associated with the current groundwater overdraft in the Pajaro Valley groundwater basin and,

BE IT FURTHER RESOLVED, that the Santa **Cruz** County Board of Supervisors recognizes and supports the need for additional groundwater management programs as an interim measure until ultimate water supply solutions are available and,

BE IT FINALLY RESOLVED, that the Santa Cruz County Board of Supervisors declare a groundwater emergency in the Pajaro Valley 'groundwater basin.

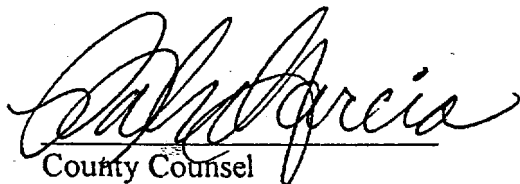
PASSED AND ADOPTED by the Board of Supervisors of the County of Santa Cruz, State of California, this day of August, 1999, by the following vote: **0393**

AYES: SUPERVISORS  
NOES: SUPERVISORS  
ABSENT: SUPERVISORS  
ABSTAIN: SUPERVISORS

\_\_\_\_\_  
Chairperson of the Board of Supervisors

ATTEST: \_\_\_\_\_  
Clerk of the Board

APPROVED AS TO 'FORM:

  
County Counsel

DISTRIBUTION: County Counsel  
Planning Department - Water Resources Management  
Health Services Agency  
Pajaro Valley Water Management Agency  
City of Watsonville  
County of Monterey  
County of San Benito

Blc

PVH2ORES2

0394

URGENCY ORDINANCE ADDING CHAPTER 7.79 TO THE  
SANTA CRUZ COUNTY CODE RELATING TO A GROUNDWATER  
MANAGEMENT PROGRAM WITHIN THE **PAJARO**  
VALLEY GROUNDWATER BASIN

The Board of Supervisors of the County of Santa Cruz ordains as follows:

SECTION I

The Santa Cruz County Code is hereby amended by adding Chapter 7.79 to read as follows:

Chapter 7.79

- 7.79.010 Declaration of emergency.
- 7.79.020 Applicability.
- 7.79.030** Definitions.
- 7.79.040 Reporting requirements.

7.79.010

In accordance with Section 7.70.130 of this code, it is hereby found and declared that a water shortage and groundwater emergency exists with the Pajaro Valley groundwater basin, and that it is necessary to **require** the submittal of specified reports and information from agricultural water users as provided in this chapter.

7.79.020 Applicability.

The provisions of this chapter shall apply to all persons within the unincorporated area of Santa Cruz County using groundwater from the Pajaro Valley groundwater basin.

7.79.030 Definitions.

- A. "Agricultural well" means a water well used to supply water for irrigation or other agricultural purposes, including a so-called "live-stock well".
- B. "County" means the County of Santa Cruz.
- C. "Groundwater" means water beneath the surface of the earth within the zone



below the water table in which the soil is completely saturated with water.

Groundwater” does not include any water which, on the effective date of this ordinance, is subject to appropriation under Part 2 (commencing with Section 1200) of Division 2 of the Water Code.

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D. “Overdraft” means the conditions of the groundwater basin where the average annual amount of water extracted exceeds the average annual supply of water to the basin, plus any temporary surplus.

E. “Pajaro Valley groundwater basin” means the groundwater basin within the boundaries of the Pajaro Valley Water Management District.

F. “Program” means a groundwater management program required by the County pursuant to this chapter.

#### 7.79.040 Reporting requirements.

A. Each owner of a metered agricultural well within the Pajaro Valley groundwater basin that extracts in excess of 35 acre-feet per year shall:

1. Prepare an Agricultural Water Conservation Plan and submit copies of said plan to the County Planning Director and the Pajaro Valley Water Management Agency. An Agricultural Water Conservation Plan shall include a preliminary review of soil type, water quality, and nutrient management conditions pertinent to the agricultural operations supplied by the well. Irrigation management practices shall also be discussed within the context of past or present cropping practices (in acres). -The plan shall also identify each of the following agricultural best management practices put into use by the agricultural operation:

- a. 12 Month Set Aside.
- b. Summer Fallow/other Fallow.
- c. Flowmeters.
- d. Time clock/pressure switch..
- e. Soil moisture sensors.
- f. Pre-irrigation reductions,
- g. Reduced sprinkler spacing.
- h. Sprinkler improvements.
- i. Off-wind irrigation.
- j. Leakage reduction.
- k. Micro irrigation system.
- l. Surge flow irrigation.

- m. Tailwater return system.
- n. Land leveling/grading.
- o. Less water intensive cropping pattern.

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2. Obtain an Irrigation System Evaluation by a professional agronomist or irrigation specialist to evaluate the distribution uniformity of applied water for the irrigation technique employed by the agricultural operation, and submit copies of said evaluation to the County Planning Director and the Pajaro Valley Water Management Agency. The evaluation shall be specific enough to quantify and allow an evaluation of the overall efficiency of the irrigation system employed, whether the system is drip, sprinkler, furrow, or some combination thereof. A Irrigation System Evaluation shall be completed and submitted at least once every five years.

## SECTION II

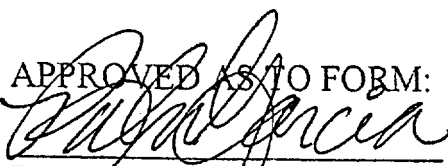
This ordinance shall take effect immediately for the preservation of the public peace, health and safety. The facts constituting the urgency are: (1) groundwater pumpage is currently exceeding the known groundwater supply within the Pajaro Valley groundwater basin resulting in a significant overdraft situation; (2) seawater intrusion is increasing within the Pajaro. Valley groundwater basin threatening the productive use of lands; and (3) the Pajaro Valley groundwater basin is currently experiencing a groundwater shortage and water supply emergency. Any unnecessary delay will allow the situation to exacerbate.

PASSED AND ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 1999, by the Board of Supervisors of the County of Santa Cruz by the following vote:

A Y E S : SUPERVISORS  
 N O E S : SUPERVISORS  
 A B S E N T : SUPERVISORS  
 A B S T A I N : SUPERVISORS

\_\_\_\_\_  
 Chairperson of the  
 Board of Supervisors

Attest: \_\_\_\_\_  
 Clerk of the Board

APPROVED AS TO FORM:  
  
 RAHN GARCIA  
 Assistant County Counsel



# County of Santa Cruz 0397

## BOARD OF SUPERVISORS

701 OCEAN STREET, SUITE 500, SANTA CRUZ, CA 95060-4069

(831) 454-2200 FAX: (831) 454-3262 TDD: (831) 454-2123

JANET K. BEAUTZ  
FIRST DISTRICT

WALTER J. SYMONS  
SECOND DISTRICT

MARDI WORMHOUDT  
THIRD DISTRICT

TONY CAMPOS  
FOURTH DISTRICT

JEFF ALMQUIST  
FIFTH DISTRICT

November 1, 1999

Judy Pennycook, Chair  
Monterey County Board of  
Supervisors  
1000 South Main Street, #213  
Monterey, CA 93901

Dear Chair Pennycook:

On October 5, 1999, our Board accepted a progress report on ongoing activities to mitigate overdraft in the Pajaro Valley and continued consideration of a declaration of a water emergency in the Pajaro Valley. A copy of the staff report is attached for your information. Among other actions, I was directed to write the Monterey County Board of Supervisors, and copy the Board of Directors of the Monterey County Water Resources Agency, to request that Monterey County officials also **request the** Pajaro Valley Water Management Agency to consider adopting an ordinance requiring the mandatory filing of agricultural water conservation plans.

As you know, it is our Board's position that given the magnitude of the overdraft problem, additional groundwater management programs are warranted throughout the Pajaro Valley. Specifically, our Board would recommend additional programs aimed at evaluating on-farm conservation practices and overall irrigation efficiencies. It is the Board's desire to see that these type of programs get expanded in the near term and continue throughout the interim period until a long-term solution is agreed upon.

Our staff has drafted an urgency ordinance which would add such a groundwater management program within the Santa Cruz County portion of the groundwater basin. Our staff has also presented us with a copy of the Monterey County Water Resource Agency's Ordinance No. 03851, an ordinance requiring the filing of Agricultural Water Conservation Plans. Our Board would prefer that each of our Counties support both near term and interim water management programs in the Pajaro Valley. We have communicated this request to the Pajaro Valley Water Management Agency.

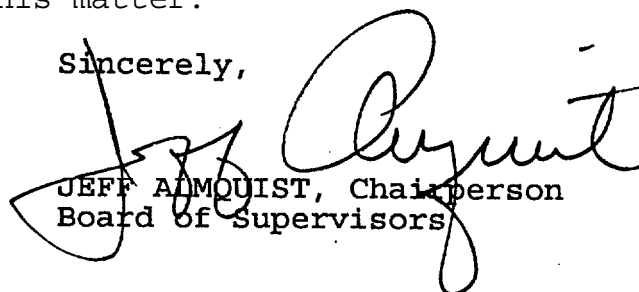
November 1, 1999  
Page 2

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We therefore ask that your Board also write the Pajaro Valley Water Management Agency requesting that it consider adopting an ordinance requiring the mandatory filing of Agricultural Water Conservation Plans. Our County Water Resource Manager is following the progress of the North Monterey County Comprehensive Water Resources Management Plan and suggests that an ordinance requiring agricultural water conservation plans is complementary to the Mission Statement and objectives of your developing Plan.

We appreciate your consideration of this request and thank you in advance for your actions on this matter.

Sincerely,



JEFF ALMQUIST, Chairperson  
Board of Supervisors

JA:lg  
Attachment

cc: ☒ Bruce LacLergue, Planning Department  
Board of Directors, Monterey County Water Resources Agency

2022C5



# County of Santa Cruz

## BOARD OF SUPERVISORS

701 OCEAN STREET, SUITE 500, SANTA CRUZ, CA 95060-4069  
(831) 454-2200 FAX: (831) 454-3262 TDD: (831) 454-2123

0399

JANET K. BEAUTZ  
FIRST DISTRICT

WALTER J. SYMONS  
SECOND DISTRICT

MARDI WORMHOUDT  
THIRD DISTRICT

TONY CAMPOS  
FOURTH DISTRICT

JEFF ALMQUIST  
FIFTH DISTRICT

November 3, 1999

Brad Bennett  
Pajaro Valley Water  
Management Agency  
36 Brennan Street  
Watsonville, CA 95076

Dear Mr. Bennett:

On October 5, 1999, our Board accepted a progress report on ongoing activities to mitigate overdraft in the Pajaro Valley and continued consideration of a declaration of a water emergency in the Pajaro Valley.

As you know, it is our Board's position that given the magnitude of the overdraft problem, additional groundwater management programs are warranted throughout the Pajaro Valley. Specifically, our Board would recommend additional programs aimed at evaluating on-farm conservation practices and overall irrigation efficiencies. It is the Board's desire to see that these types of programs get expanded in the near term and continue throughout the interim period until a long-term solution is agreed upon.

Our staff has drafted an urgency ordinance which would add such a groundwater management program within the Santa Cruz County portion of the groundwater basin. Our staff has also presented us with a copy of the Monterey County Water Resource Agency's Ordinance No. 03851, an ordinance requiring the filing of Agricultural Water Conservation Plans. Our Board would prefer that each of our Boards support both near term and interim water management programs in the Pajaro Valley.

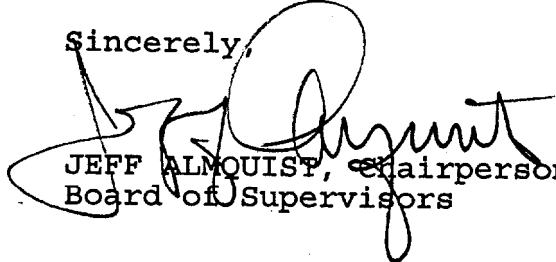
We therefore ask that your Board consider adopting an ordinance requiring the mandatory filing of Agricultural Water Conservation Plans. Our County Water Resource Manager is following the progress of the North Monterey County Comprehensive Water Resources Management Plan and suggests that an ordinance requiring agricultural water conservation plans is complementary with the development of that plan as it overlaps in your jurisdiction.

November 3, 1999  
Page 2

0400

We appreciate your consideration of this request and thank you in advance for your actions on this matter.

Sincerely,



JEFF ALMQUIST, Chairperson  
Board of Supervisors

JA:pmp

cc: ✓ Bruce Laclergue Planning Department  
Board of Directors, Monterey County Water Resources Agency

2022C5

**Resolution 2000-03**

0401

A Resolution of the Board of Directors of the  
Pajaro Valley Water Management Agency

**Setting Policy on Water Conservation Practices Questionnaire**

The Board of Directors of the Pajaro Valley Water Management Agency does resolve as follows:

**WHEREAS**, the Pajaro Valley Water Management Agency (Agency) was formed, among other reasons, to provide integrated management of the ground and surface water resources within the Pajaro Basin. As the sole local agency responsible for the integrated management of water resources for the Pajaro Basin, the Agency bears responsibility for the management and augmentation of water supplies for domestic, agricultural, municipal and industrial purposes; and

**WHEREAS**, the Pajaro Valley Water Management Agency Act (Act) provides that conservation and economically efficient management of water resources are necessary to meet the needs of agriculture, industry and urban communities and further provides that water conservation programs appropriately include the ability of a water management agency to recognize existing beneficial uses; and

**WHEREAS**, in this year and/or subsequent years, the Agency proposes to distribute the *Agricultural Water Conservation Practices Questionnaire* (Questionnaire) in substantially the same form as that attached as Exhibit A to this Resolution and incorporated herein, to its agricultural water users in an attempt to gather the information it needs to effectively carry out its powers and purposes; and

**WHEREAS**, the Agency acknowledges that there is a split of opinion amongst its agricultural water users as to whether response to the Questionnaire should be done on a mandatory or a voluntary basis; and

**WHEREAS**, the Agency shall take reasonable means to encourage response to the Questionnaire, including the releasing of names of persons who have responded and/or not responded; and

**WHEREAS**, the Agency recognizes the importance of maintaining the confidentiality of the content of the individual responses received, which confidentiality will in part encourage a greater number of agricultural water users to respond to the Questionnaire, which in turn will satisfy the long term goals of the Agency; and

the Agency believes that it is legally entitled to maintain the confidentiality of the responses, and intends to maintain the confidentiality of such responses to the extent permitted by law.

**NOW, THEREFORE, BE IT RESOLVED**,  
Management Agency does hereby find as follows:

Directors of the Pajaro Valley Water

1. Obtaining and utilizing the information requested in the Questionnaire are necessary for meeting the long-term goals of the Agency.

2. The Questionnaire shall be distributed to its agricultural water users with a request that the information be provided on a voluntary basis. 0402
3. In the event that the Agency does not receive a response sufficient to analyze the data for its groundwater management purposes within a reasonable time after the Questionnaire is distributed, the Agency may reconsider whether to re-distribute the Questionnaire after imposing a requirement that the Questionnaire information be provided on a mandatory basis.

**PASSED AND ADOPTED** by the Pajaro Valley Water Management Agency, County of Santa Cruz, State of California, the 19<sup>th</sup> day of January 2000, by the following vote:

**AYES:**

**NOES:**

**ABSENT:**

**ABSTAIN:**

---

Brad Bennett, Chair

Attest:

---

Barbara Jordan, Secretary



**Pajaro Valley Water Management Agency**

0403

**1999 Agricultural Water Conservation Practices Questionnaire**

This conservation practices questionnaire has been designed to provide the Agency with needed information regarding the current status of on-farm conservation practices in the Pajaro Valley, as well as providing you the opportunity to review your own practices.

In some cases, you may farm multiple ranch units in different areas of the Pajaro Valley or you may farm multiple varieties of crops. Ranch units or crop types may be grouped together, regardless of crop type, as long as the crop type and affected acreage are specified where requested. For example, suppose you farm 100 acres split evenly between lettuce and cauliflower both of which provide 2 rotations per season; the 100 acres is comprised of two distinct ranch units; and irrigation water is pumped from three wells. Under this set of conditions, the total net acreage is equal to 100; the cropped acreage is listed as 100 acres "double;" crop type and net acreage is 50 acres "lettuce" and 50 acres "other vegetable." If a conservation practice does not affect both crop types or all ranch acreage, the affected acreage and crop type should be indicated in the spaces provided. All three wells should be listed, regardless of their usage. Please list the wells by their assigned PVWMA Well Number, this number can be found on the invoice this form accompanied.

You may use multiple forms, if you so choose, for each ranch unit or crop type. You should have received a copy of this questionnaire with each invoice received; if you require additional copies you may copy the questionnaire form as required or request additional copies from the PVWMA.

If your situation is more complicated than the example given, and you would like direct assistance, you may call Douglas Coty at 831-722-9292.

Name (printed): \_\_\_\_\_

Company Name: \_\_\_\_\_

I, the undersigned, do attest that: I farm property within the boundaries of the Pajaro Valley Water Management Agency; the information included in this 1999 Agricultural Water Conservation Practices Questionnaire is correct; I am engaged in the business of raising crops for commercial purposes; and I am a responsible managing official of the business entity.

---

Name

Date

Phone No.

**Si usted requiere una version en espanol favor de llamar a 831-722-9292**

**General information****NET ACRES FARMED**

This should represent the total net acreage at this farm unit or ranch.

**CROPPED ACRES**

Please indicate what acreage is utilized for multiple rotations per season. The sum of this line should equal the total net acres farmed.

**METHODS UTILIZED FOR IRRIGATION**

Please indicate the main method utilized. It is known that some irrigation practices are combined, (i.e. sprinkler pre-irrigating prior to drip tape installation or furrow/sprinkler in combination). You may list any alternate or minor irrigation methods as "Other."

**Water Conservation Practices****TWELVE MONTH FALLOW**

No irrigation water applied for 12 consecutive months.

**90 DAY CONSECUTIVE FALLOW (SUMMER FALLOW)**

No irrigation water applied for 90 consecutive days, between April 01, and October 01.

**FLOW METER**

Water use can be quantified for improved management of applied water.

**TIME CLOCK AND/OR PRESSURE SWITCH**

An automatic time clock will turn off pump when irrigation is complete. A pressure switch will turn off booster pump.

**SOIL MOISTURE SENSORS**

Irrigation set times and frequency can be estimated using tensiometers, or other devices used to measure soil water content.

**TRANSPLANTS**

Using transplants for crops normally direct seeded can reduce the number of initial irrigations and reduce applied water.

**REDUCED PRE-IRRIGATION**

Reducing pre-irrigation time or frequency can lower overall applied water.

**RE-USE OF TAILWATER OR RUN-OFF**

Tailwater or run-off can be collected in a sump and re-used for irrigation or dust control.

**IRRIGATION EVALUATION WITHIN LAST 3 YEARS**

Mobile lab irrigation evaluations can be used to determine irrigation efficiencies, uniformity of water applications and can help identify possible improvements, problems and current irrigation management effectiveness.

**LASER FIELD LEVELING**

Smooth, graduated slope fields can increase uniformity of irrigation waters.

**C.I.M.I.S. OR EVAPOTRANSPIRATION INDEXES**

Used along with soil moisture sensors, the crop evapotranspiration rate can aid in estimating irrigation times and frequency.

**EDUCATIONAL SESSIONS/CONFERENCES**

Attendance at U.C. Cooperative, NRCS or other irrigation management courses.

**Sprinkler Irrigation****OFF-WIND IRRIGATION,**

Wind speeds greater than 5 mph can reduce the amount and uniformity and efficiency of sprinkler irrigation.

**NIGHTTIME IRRIGATION**

Nighttime irrigation may reduce loss of applied water to evaporative forces.

**LEAKAGE REDUCTION**

Water savings from reducing or eliminating pump, mainline and irrigation pipe leakage can be significant.

**REDUCED SPRINKLER SPACING**

Reducing the spacing between sprinkler lines may improve the uniformity of applied irrigation water.

**SPRINKLER IMPROVEMENTS**

Includes, replacing older worn nozzles, gasket replacements or other adjustments to increase uniformity of irrigation.

**OTHER**

Other sprinkler irrigation management techniques or technology not listed here. Please specify.

**Drip/Micro-Irrigation****PLASTIC MULCH**

The use of full or partial plastic mulch over drip lines is widely considered to reduce evaporative losses.

**MULTIPLE DRIP TAPE LINES**

The use of multiple drip tape lines is considered to increase irrigation efficiency.

**PRESSURE COMPENSATING EMITTERS**

Pressure compensating drip emitters can help ensure uniform water distribution, especially on sloping fields or with long tape runs.

**CENTER-RISER MICRO SPRINKLERS**

Center-riser micro sprinklers can increase irrigation uniformity

**OTHER**

Other drip or micro irrigation management technique or technology not listed here. Please specify.

# 1999 Water Conservation Practices Questionnaire ATTACHMENT

3

Attached for your reference: "Definition of Terms"

0405

Total number of wells serving this ranch unit: \_\_\_\_\_

PVWMA Well Number(s): \_\_\_\_\_

Net acres farmed: \_\_\_\_\_ net acres

Cropped acres: Single: \_\_\_\_\_ acres Double: \_\_\_\_\_ acres Triple: \_\_\_\_\_ acres

Crop type(s) and net acreage: Strawberry \_\_\_\_\_ Bushberry \_\_\_\_\_ Lettuce \_\_\_\_\_ Nursery \_\_\_\_\_

Orchard \_\_\_\_\_ Greenhouse \_\_\_\_\_ Other Vegetable \_\_\_\_\_ Other Row Crop \_\_\_\_\_ Other \_\_\_\_\_

What method(s) do you utilize for irrigation? Please note affected acreage and crop type.

- ☐ Drip or micro-sprinkler \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Sprinkler \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Furrow \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Other, (please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

Please indicate which water conservation practices were implemented, the acreage affected and crop type

- ☐ Twelve month fallow \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ 90 days consecutive fallow (summer fallow) \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Flow meter installed \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Use of soil moisture sensors \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Transplants (certain vegetables only) \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Reduced pre-irrigation \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Re-use of tailwater ~~or~~ run-off \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Time clock ~~and/or~~ pressure switch \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Irrigation evaluation within last 3 years \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Laser field leveling \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ CIMIS or other evapotranspiration indexes \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Educational sessions/conferences \_\_\_\_\_
- ☐ Other, (please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

**Sprinkler Irrigation and affected acreage**

- ☐ Off-wind irrigation \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Nighttime irrigation \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Leakage reduction \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Reduced sprinkler spacing \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Sprinkler improvements \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Other, (please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

**Drip/Micro-irrigation**

- ☐ Plastic mulch, (please **circle Full or Partial**) \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Multiple drip tape lines per bed \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Pressure compensating emitters \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Center-riser micro-sprinklers \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Other, (please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

# 1999 Water Conservation Practices Questionnaire

Attached for your reference: "Definition of Terms"

ATTACHMENT

3

0406

Total number of wells serving this ranch unit: \_\_\_\_\_

PVWMA Well Number(s): \_\_\_\_\_

Net acres farmed: \_\_\_\_\_ net acres

Cropped acres: Single: \_\_\_\_\_ acres Double: \_\_\_\_\_ acres Triple: \_\_\_\_\_ acres

Crop type(s) and net acreage: Strawberry \_\_\_\_\_ Bushberry \_\_\_\_\_ Lettuce \_\_\_\_\_ Nursery \_\_\_\_\_

Orchard \_\_\_\_\_ Greenhouse \_\_\_\_\_ Other Vegetable \_\_\_\_\_ Other Row Crop \_\_\_\_\_ Other \_\_\_\_\_

What method(s) do you utilize for irrigation? Please note affected acreage and crop type.

- ☐ Drip or micro-sprinkler \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Sprinkler \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Furrow \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Other, (Please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

Please indicate which water conservation practices were implemented, the acreage affected and crop type

- ☐ Twelve month fallow \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ 90 days consecutive fallow (summer fallow) \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Flow meter installed \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Use of soil moisture sensors \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Transplants (certain vegetables only) \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Reduced pre-irrigation \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Re-use of tailwater or run-off \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Time clock and/or pressure switch \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Irrigation evaluation within last 3 years \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Laser field leveling \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ CIMIS or other evapotranspiration indexes \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Educational sessions/conferences \_\_\_\_\_
- ☐ Other, (please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

**Sprinkler Irrigation and affected acreage**

- ☐ Off-wind irrigation \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Nighttime irrigation \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Leakage reduction \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Reduced sprinkler spacing \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Sprinkler improvements \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Other, (please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

**Drip/Micro-irrigation**

- ☐ Plastic mulch, (please circle **Full** or **Partial**) \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Multiple drip tape lines per bed \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Pressure compensating emitters \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ Center-riser micro-sprinklers \_\_\_\_\_ acres \_\_\_\_\_ crop
- ☐ (Please specify) \_\_\_\_\_ acres \_\_\_\_\_ crop

**Proposed Water Conservation Implementation Plan for Year 2000  
For Board Review, Discussion and Comment Only**

ATTACHMENT

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0407

The following is a draft Water Conservation Program Implementation Plan for Year 2000 for Board review and discussion. The elements contained in this proposed Implementation Plan reflect the plan proposed in Water Conservation 2000 (WC 2000). All elements of WC 2000 have been incorporated into the proposed Implementation Plan, however most elements have been proposed at greatly reduced funding levels. The Implementation Plan as proposed here, contains both Agricultural and Urban programs. The proportion of funding reflects the proportion of groundwater consumed in the Pajaro Valley with approximately 75% going to agricultural elements and 25% going to urban elements.

## **Proposed Agricultural Water Conservation Program**

### **Agricultural Water Conservation Demonstration Projects**

This program has already received Board approval for the Year 2000. Up to four projects will be funded to a maximum of \$10,000 per project. Based on an analysis of total costs during the 1999 project a total budget for this program should be \$45,500. The additional \$5,500 will be used to pay technical consulting costs, grower outreach and project field tours.

*Budget Amount:* \$45,500

### **Mobile Laboratory Irrigation Evaluations**

This program will consist of 30 mobile lab irrigation evaluations performed during the course of the Year 2000 growing season. The budget amount listed reflects the benefit of the current grant assisted evaluations available through the San Luis and Delta Mendota Water Authority. Approximately 100 total evaluations are available to the 33 member-districts as a result of this grant. This budget item calls for 30 evaluations to be routed through the SL&DMWA program at a cost to the PVWMA of approximately \$300 per evaluation. An additional amount of \$1,500 has been budgeted for advertising and grower outreach, as well as to pay the Agency's expected ~~pro~~ rata share of the expense incurred by the SL&DMWA for grant administration.

*Budget Amount:* \$10,500

### **Agricultural Water Conservation Questionnaire, Data Analysis and Report Preparation**

The cropping and conservation practice data acquired through the Agricultural Water Conservation Practices, Questionnaire will be analyzed and compiled into an informational report. The report would include crop types and acreage, methods of irrigation, total and unit water use, and estimated consumption by crop type and area. This report would also include a summary of conservation practices employed on Pajaro Valley farms and a summary of PVWMA water conservation programs conducted during the previous year. This report would be distributed with the Agency's January 2001 billing. Copies would also be available directly through the PVWMA.

*Budget Amount:* \$5,000

### **Agricultural Educational Seminars**

The Agency will sponsor or co-sponsor grower educational seminars on the topic of irrigation management, scheduling and design. The seminar(s) will be targeted to Pajaro Valley growers and the common crops produced in the Pajaro Valley.

*Budget Amount:* \$10,000

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**Proposed Water Conservation Implementation Plan for Year 2000  
For Board Review, Discussion and Comment Only**

**ATTACHMENT**

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**Water Conservation Program Grant Preparation**

The Agency will pursue additional grant funding from the Bureau of Reclamation, California Department of Water Resources and other public and private sources of funding. These costs are for consultant assistance in researching, preparing and filing grant applications. These grants may be applicable to both the agricultural and urban elements of the Agency's Water Conservation Program. The opportunities for grant funding for water conservation activities may be greatly enhanced upon passage of a water bond in the next statewide election.

*Budget Amount:* \$10,000 (*split 50/50 between agricultural and urban programs*)

**Install CIMIS Weather Station**

The Agency is currently pursuing grant funding from the U.S. Bureau of Reclamation to fund the installation of an additional CIMIS Weather Station in the Pajaro Valley. The grant would provide funding up to a maximum of \$15,000. The Agency may incur additional costs above the grant during the site selection, installation, calibration and maintenance of the station. These costs are estimated to not exceed \$2,500.

*Budget Amount:* \$17,500 (\$15,000 grant funded)

**Irrigation Scheduling Technology Assistance**

The Agency is also pursuing a second grant from the Bureau of Reclamation. The second grant, also to a maximum of \$15,000, would look to the Agency providing training on irrigation scheduling. The training would include training in the use of CIMIS data, irrigation scheduling software and alternative methods of irrigation scheduling. Anticipated Agency costs may include the purchase of dedicated computer equipment for software training, purchase of software, and training of Agency staff. These costs are estimated to not exceed \$2,500.

*Budget Amount:* \$17,500 (\$15,000 grant funded)

**Proposed Urban Water Conservation Budget**

**Residential Drought Tolerant Landscaping Demonstration Gardens**

In cooperation with the University of California Cooperative Extension and the Santa Cruz County Master Gardeners Association, the Agency would fund or partially fund a drought resistant demonstration garden project. This garden would be in publicly accessible location, allowing residents to review drought resistant plants and acquire information on designing and planting low water use landscaping.

*Budget Amount:* \$10,000

**Urban Water Conservation Education and Outreach**

This program will include participation in countywide projects, including those currently in development through the County Water Managers Working Group Water Conservation Subcommittee. Specific items may include restaurant and hotel/motel conservation notices, provision of educational materials to local schools installation of water conservation mobile billboards and media outreach.

*Budget Amount:* \$5,000

**Proposed Water Conservation Implementation Plan for Year 2000  
For Board Review, Discussion and Comment Only**

0409

**Rural Residential Toilet Rebate Program and Showerhead Replacement**

This program would add to the toilet rebate program currently operated through the City of Watsonville for the City's Water Service Area. The rebate program and provision of low flow showerheads would be modeled to provide an equal service to the rural residential private well user, as the service provided to customer of the City of Watsonville Water Department. This program would require coordination with the City to ensure that rebates are provided through the correct agency and that multiple rebates are not provided.

*Budget Amount:* \$5,000

<b>Agricultural Water Conservation Subtotal:</b>	\$71,000
<b>Total Urban Water Conservation Subtotal:</b>	\$25,000
<b>Staff Time Budget:</b>	<b>\$30,000</b>
<b>Total Year 2000 Implementation Plan Budget:</b>	\$126,000

**Additional Agency Water Conservation Related Spending**

The Agency budgets approximately \$50,000 for the *Water Metering Program*. The data gathered as a result of the metering program will provide necessary quantitative data to support the water conservation questionnaire and will assist in providing direction to future conservation programs. The Agency is currently proposing to spend \$20,000 to improve data collection through a contract for *Water Meter Program Improvement Services*. This project is intended to improve water meter reliability, increase decrease lost water revenue, decrease maintenance costs, deliver improved services to metered users and improve data collection abilities. As proposed in WC 2000, any changes to the Agency's billing software will include the ability to relate *Historic Pumping Information to Metered Users*.

**Elements Limited or Eliminated from Proposed Implementation Plan Due to Budget Constraints**

**CIMIS Weather Station:** WC 2000 proposed the installation of 2 additional CIMIS Stations, The Current proposal would add one additional Station. This item is contingent on receiving grant funding from the Bureau of Reclamation,

**Provide Irrigation Scheduling Technology/Assistance:** This element, also contingent on receiving grant assistance, has been scaled to approximately half of the size proposed in WC 2000.

**Mobile Irrigation Laboratory Program:** WC 2000 proposed a schedule of 120 evaluations performed each year. The draft implementation plan proposes that 30 evaluations be performed, all being partially funded through an existing grant with the SL&DMWA. This element is an excellent candidate for seeking additional grant funding.

**Financial Assistance for Irrigation System Improvements:** Proposed in WC 2000, this element has not been proposed to receive funding in 2000.

**Ongoing Public Education Program:** This funding for this agricultural element has been reduced by 2/3 from the level proposed in WC 2000. The urban element has been reduced by 90%. Some of this shortfall may be made up through integrating other program outreach and general educational efforts and cooperative programs with the City of Watsonville and Countywide efforts.

**Specific Recommendations for Urban Water Conservation Not Proposed for Implementation:** Residential, Commercial and Landscaping Audits; High Efficiency Washing Machine Rebates; Commercial Toilet Replacement Program; and Conservation Pricing or Tiered Pricing.

**TABLE 1-1 Costs Summary - Local Water Supply Options**

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PROJECT	SUPPLY	STORAGE	YIELD (AF/Y)	CAPITAL COST(\$M)	O&M COSTS(\$)	UNIT COST(\$/AF)
<b>Pajaro River at Murphy Gassing</b>	<b>Pajaro River</b>		1,600	4.6	164,000	311
<b>Harkins Slough</b>	<b>Harkins Slough</b>		1,600	6.4	233,000	436
<b>College Lake</b>	<b>Surface Runoff</b>	<b>2,000 AF @ College Lake</b>	1,600	6.8	252,000	466
<b>Recycled Water Blended with Groundwater</b>	<b>Groundwater and Recycled Water (9 mgd)</b>		5,700	26.2	1,015,000	512
<b>College Lake with Corralitos Geek</b>	<b>Surface Runoff and Corralitos Creek</b>	<b>3,700 AF @ College Lake</b>	2700	43.7	479,000	1,360
<b>Balsa de San Cayetano with Pajaro River</b>	<b>Pajaro River</b>	<b>5,000 AF @ Balsa de San Cayetano</b>	5,000	87	838,000	1,430
<b>Recycled Water Blended with Desalinated Seawater Option 2: Coastal Service Area Delivery with Storage</b>	<b>Recycled Water (7 mgd) and Desalinated Seawater (13.7 mgd)</b>	<b>5,000 AF @ Balsa de San Cayetano</b>	17,500	188	13,460,000	1,550
<b>Recycled Water Blended with Desalinated Seawater Option 3: PYWMA Service Area Delivery</b>	<b>Recycled Water (9 mgd) and Desalinated Seawater (36 mgd)</b>	-	29,500	333	33,120,000	1,940
<b>Recycled Water Blended with Desalinated Seawater Option 1: Coastal Service Area Delivery</b>	<b>Recycled Water (7 mgd) and Desalinated Seawater (21.3 mgd)</b>	-	17,500	214	20,340,000	2,050
<b>Desalinated Seawater Blended with Groundwater</b>	<b>Groundwater and Desalinated Seawater (36 mgd)</b>	-	23,600	317	32,400,000	2,350



## Pajaro Valley Water Management Agency

0411

## Ordinance No. 2000-02

AN ORDINANCE OF  
THE PAJARO VALLEY WATER MANAGEMENT AGENCY  
ESTABLISHING REGULATIONS FOR THE CLASSIFICATION AND  
OPERATION OF GROUNDWATER WELLS IN THE PVWMA  
LOCAL WATER SUPPLY PROJECT SERVICE AREA,  
TO PROTECT THE PAJARO VALLEY GROUNDWATER BASIN  
AGAINST FURTHER SEAWATER INTRUSION

SUMMARY

This ordinance provides for the management of all groundwater wells within the Local Water Supply Project service area following completion and start-up of the Harkins Slough and Murphy Crossing Projects. The ordinance restricts pumping from groundwater wells in the Project service area if Project water of satisfactory quality and adequate pressure can be delivered by the Pajaro Valley Water Management Agency (PVWMA) to water users in the Project service area. The ordinance provides for the classification of the various wells and for the maintenance and limited operation of standby wells in the event the PVWMA can not deliver Project water of satisfactory quality and at adequate pressure. The ordinance establishes procedures for the issuance of variances, appeals, and penalties for violations of the ordinance.

The Board of Directors of the PVWMA makes the following findings:

A. Appropriate studies have been conducted by the PVWMA, and based upon those studies, the Board of Directors determines that the portion of the Pajaro Valley Groundwater Basin that underlies the Local Water Supply Project service area is threatened with the loss of a usable water supply as a result of seawater intrusion.

B. Pursuant to the PVWMA Act, Sections 124-502 and 124-711, the Board finds that the public **necessity** requires that the PVWMA take this action, and the Board further **finds** that it is necessary to take steps to limit, control, prohibit and otherwise restrict the withdrawal of water from a portion of the Pajaro Valley Groundwater Basin, in order to deter the further intrusion of seawater into the Basin and protect the quality of the groundwater, by establishing and defining the area and depth **from** which the further extraction of groundwater is prohibited.

C. The Board has conducted a public hearing upon the proposed determination, with notice of the hearing given in the manner prescribed in Government Code Sec. 6065. At the hearing, the Board accepted evidence showing the nature and extent of the threat of seawater intrusion and the facilities proposed in order to provide to the area threatened a substitute supply of diverted surface water **from** Harkins Slough and the Pajaro River.

D. Said hearing having been concluded, the Board determines that a threat of seawater intrusion exists which will be aggravated by continued groundwater extraction **from** the Alluvium and Aromas Red Sand Formations and that the prohibitions and restrictions on the pumping of groundwater in these aquifers are necessary in order to alleviate the seawater intrusion problem. The Board further determines that the PVWMA Local Water Supply Project will provide a substitute water supply that will be

adequate to replace the water supply previously available from the wells that will be affected by the prohibition against pumping.

E. Property owners and growers in the Project service area have requested that additional wells be maintained as standby wells, as an additional assurance that an adequate water supply will be available at all times. The ultimate success of the projects depends upon the reduction of groundwater pumping. However, the maintenance of standby wells at the expense of owners is an appropriate action and will not compromise the success of the projects if such standby wells are maintained and operated under the limitations set forth in this ordinance.

F. The regulations set forth in this ordinance are designed as measures to protect the groundwater supply of the Pajaro Valley Groundwater Basin. They are not intended to effect any diminution in the basic groundwater rights held by overlying owners in the area subject to regulation but are put into effect in furtherance of the PVWMA duty to manage the Pajaro Valley Groundwater Basin and to protect the water supplies therein. By complying with these regulations and by participating in the Local Water Supply Project, the overlying owners do not waive or prejudice any water rights held by them, now or in the future. If at some time in the future these regulations or any successor regulations are no longer necessary to protect the groundwater basin and are then modified or removed, then the groundwater rights of the overlying owners will be exercisable in conformity with such laws as may then be in effect, and the overlying owners will suffer no prejudice in that regard because of the Local Water Supply Project, these regulations, or any successor regulations.

G. On May 19, 1999, in Resolution No. 99-05, the Board of Directors approved the Local Water Supply Project and certified that the Final EIR for the Project was complete and was prepared in compliance with the California Environmental Quality Act. As so described and approved, the Project included the proposed restriction of further pumping of groundwater. The present ordinance is proposed as part of the Local Water Supply Project and is within the scope of the project described in the EIR; it will cause no new environmental effects beyond those considered in the EIR and no new mitigation measures need be considered for this ordinance; and it does not require further environmental review.

NOW, THEREFORE, the Board of Directors of the Pajaro Valley Water Management Agency ordains as follows:

SECTION I. The following provisions are adopted:

PART I -- DEFINITIONS

1.01.01. GENERAL APPLICATION

As used in this ordinance, the following words shall have the meaning provided in this part.

1.01.02 COMMERCIAL OR INDUSTRIAL WELL

“Commercial or industrial well” means any well used to supply water for commercial or industrial purposes, excluding any well that is used in whole or in part to supply water for agricultural irrigation. A commercial or industrial well may also be classified as a domestic well, provided that it shall not also be classified as a standby well.

1.01.03 DOMESTIC WELL

“Domestic well” means a well used for the supply of groundwater for potable uses. A domestic well may also be classified as a standby well for agricultural use.

1.01.04 GENERAL MANAGER

“General Manager” means the PVWMA General Manager or his or her designee.

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#### 1.01.05 GENDER, NUMBER, AND TENSE

Words used in any gender include any other gender. The singular number includes the plural, and the plural the singular. Words used in the present tense include the future as well as the present.

#### 1.01.06 LOCAL WATER SUPPLY PROJECT

“Local Water Supply Project” includes the PVWMA Harkins Slough and Murphy Crossing Projects.

#### 1.01.07 MONITORING WELL

“Monitoring Well” means any artificial excavation constructed by any method for the purpose of monitoring fluctuations in groundwater levels, quality of groundwater, or the concentration of contaminants in groundwater.

#### 1.01.08 PERSON

“Person” means any individual, organization, partnership, business, association, corporation or governmental agency.

#### 1.01.9 PROJECT SERVICE AREA

“Project Service Area” means the area in the PVWMA service area that will receive project water from the Harkins Slough and Murphy Crossing Projects.

#### 1.01.10 PROJECT START-UP

“Project Start-Up” means the date on which the General Manager declares that the project known as the Harkins Slough Project or the Murphy Crossing Project is operational after water is first delivered or deliverable through the project pipeline to customers in the project service area.

#### 1.01.11 PROJECT WATER

“Project water” means water supplied to property in the project service area by the Harkins Slough or Murphy Crossing Project for use in the irrigation of crops.

#### 1.01.12 SEAWATER INTRUDED

An aquifer is “seawater intruded” at any particular location of measurement when, at the location of measurement, the chloride ion concentration in the aquifer exceeds 500 mg/liter, and the General Manager determines that the contamination is not a localized contamination.

#### 1.01.13 SECTION HEADINGS

Section headings used in this ordinance shall not be deemed to govern, limit, modify, or in any manner affect the scope, meaning, or intent of the provisions of any section.

#### 1.01.14 STANDBY WELL

“Standby Well” means a well not routinely operated but maintained, by the well-owner for purposes of providing a water supply for agriculture to the well-owner’s property under emergency conditions.

#### 1.0 1.15 SUPPLEMENTAL WELL

“Supplemental Well” means any well maintained or operated by the PVWMA as a part of the Harkins Slough or Murphy Crossing Projects.

#### 1.01.16 TEST WELL

“Test Well” means any artificial excavation used for water quality testing, electric logging, water quality testing and/or other tests to determine aquifer quality and quantity characteristics,

#### 1.01.17 WELL

“Well” or “water well” means any artificial excavation constructed by any method for the purpose of extracting water from below the ground surface. “well” or “water well” does not include wells used for the purpose of dewatering excavation during construction or for the purpose of stabilizing hillsides or earth embankments.

### PART II -- BASIC RULES

#### 1.02.01 COMPLIANCE WITH ORDINANCE

No person shall construct, own, operate, or maintain any water well located within the boundaries of the project service area, as those boundaries may exist from time to time, except in compliance with this ordinance.

#### 1.02.02 OPERATION OF WELLS IN PROJECT SERVICE AREA

After the expiration of 30 days following the date on which project water becomes available to any particular property within the project service area no person shall operate any well within the project service area to provide water to such property for agricultural irrigation except when:

- A. The well is a supplemental well operated by the PVWMA, or
- B. The well is a standby well operated in conformity with this ordinance.

#### 1.02.03 IMPORTING GROUNDWATER INTO THE PROJECT SERVICE AREA

After the startup of the Local Water Supply Project, no well located anywhere in the project service area shall be used to supply water for use in the irrigation of agricultural lands located within the project service area, and no person shall cause, suffer, or permit such use of such water, unless:

- A. The well from which such water is obtained is a supplemental well operated by the PVWMA as part of the Local Water Supply Project or the well is operated by the PVWMA as part of another water supply project, or
- B. The well from which such water is obtained is a standby well operated in conformity with this ordinance.

#### 1.02.04 EXPORTING GROUNDWATER FROM PROJECT SERVICE AREA

After the start-up of the Local Water Supply Project, no well located anywhere within the external boundaries of the project service area shall be used to supply water for use outside of the external boundaries of the project service area, and no person shall cause, suffer, or permit such use of such water, except that water from wells within the coastal service area may be used outside the external boundaries of the project service area under the following circumstances:

A. The water is used for domestic purposes on parcels that are immediately adjacent to the external boundaries of the project service area; or

B. The water is used for domestic purposes on other parcels where the use has been established and water delivery pipelines are in place for such delivery on or before the effective date of this ordinance.

#### 1.02.05 CONSTRUCTION OF WELLS

No person may construct a well in the project service area without first obtaining a permit from the General Manager. The General Manager shall not issue a permit for construction of a well unless he or she finds that the construction will be consistent with the purposes of this ordinance.

#### 1.02.06 CLASSIFICATION OF WELLS

A. Prior to the start-up of the Local Water Supply Project, the General Manager shall classify all wells located in the project service area and notify all well owners of the classification of their well.

B. At any time, the owner of a well may apply to the General Manager for a change in classification, pursuant to this ordinance. Upon receipt of new information or upon evidence of changed conditions, the General Manager may, on his or her own initiative, change the classification of a well, upon giving 30 days' advance notice in writing to the owner thereof. Before making any reclassification, the General Manager must find that the well no longer qualifies for its existing classification, or that the existing classification was made in error. The General Manager may, and at the request of the well owner, shall hold a public hearing to determine the appropriate classification or reclassification of any well.

C. The well classifications are as follows:

1. Supplemental well.
2. Agricultural well.
3. Domestic well.
4. Commercial or industrial well.
5. Monitoring well.
6. Test well.
7. Standby well.
8. Other well,

D. When a well is classified or reclassified as a domestic well or as a commercial or industrial well the General Manager shall identify by parcel number and/or street address the place where water

from such well may be used and may restrict the use of such water to a portion of the identified parcel.

### PART III -- STANDBY WELL CLASSIFICATION

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#### 1.03.01 CRITERIA FOR CLASSIFICATION AS STANDBY WELL

The General Manager shall classify a well as a standby well, whether on the initial classification or on a change in classification, if he or she makes the finding that the owner of the well will comply with all of the requirements of this ordinance applicable to standby wells.

#### 1.03.02 INSPECTIONS

The PVWMA may at any time inspect any standby well and any well, for which the owner submits an application for classification as a standby well, to ensure that the well and its appurtenant facilities do or will comply with this ordinance. Access to the well site shall be maintained by the well owner, and the PVWMA shall have the right of access to inspect the well at all times.

### PART IV -- STANDBY WELL REGULATIONS

#### 1.04.01 GENERAL RULE

A well that has been classified as a standby well shall immediately thereupon be subject to the regulations set forth below.

#### 1.04.02 FLOWMETER

A flowmeter shall be installed on all of the standby wells at the expense of the well owner and shall be fully maintained by the owner in accordance with PVWMA requirements.

#### 1.04.03 ACCESS

Access to the standby well site shall be maintained by the well owner, and the PVWMA shall have the right of access to inspect the well at all times.

#### 1.04.04 AUTHORIZED PURPOSES FOR OPERATION OF STANDBY WELLS

Standby wells may be operated only for the following purposes:

- A. To perform routine maintenance on the standby well;
- B. To provide an irrigation water supply for property in the project service area in an emergency as described in section 1.05.05;
- C. To provide potable water when the standby well is used as a domestic well.

#### 1.04.05 EMERGENCY JUSTIFYING OPERATION OF STANDBY WELL

An emergency exists and justifies use of standby well when all of the following circumstances occur:

- A. The grower has given advance notice of his or her need for project water and a schedule for delivery of water to the grower's property has been set, in conformity with procedures established by the PVWMA; and

B. The PVWMA fails to deliver project water on schedule of sufficient quality or quantity; and

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C. The grower then makes contact with the PVWMA by telephone and the PVWMA confirms that the water will not be delivered on the day scheduled for delivery; or

D. The grower determines there is a need to protect crops against frost damage; and

E. The grower then makes contact with the PVWMA by telephone.

#### 1.04.06 OWNERSHIP

Standby wells shall remain under private ownership, and are not the property of the PVWMA.

#### 1.04.07 COSTS OF MAINTENANCE AND OPERATION

All costs associated with maintenance and operation of standby wells shall be borne by the owner or operator of said well, or by such other person as may agree to assume such costs.

### PART V -- VARIANCES

#### 1.05 .0 1 APPLICATION

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 PVWMA. An Applicant may submit any additional written and documentary evidence as may be relevant to the consideration of an application. 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.

#### 1.05.02 PLAN FOR COMPLIANCE

The applicant shall, as part of the variance application, submit a plan 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. The General Manager may waive the requirement for such a plan if he or she finds that compliance would not be feasible.

#### 1.05.03 FINDINGS FOR GRANT OF VARIANCE

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

#### 1.05.04 CONDITIONS ON GRANT OF VARIANCE

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

#### 1.05.05 COMPLIANCE WITH TERMS OF VARIANCE

No person shall operate or maintain a groundwater well for which a variance has been granted hereunder, or use water therefrom, in violation of any of the terms or conditions of the variance,

PART VI -- APPEALS

## 1.06.01 RIGHT OF APPEAL

Any applicant or interested party may appeal to the PVWMA any decision by which the General Manager (a) grants or denies a variance, permit, classification, or reclassification under this ordinance; (b) gives or withholds any consent when such consent is established by this ordinance as a prerequisite to further actions or (c) imposes conditions on any such variance, permit, classification, reclassification, or consent. No person may file an appeal of a decision made after a public meeting or hearing on the issue unless that person attended the meeting or hearing upon which the appealable decision was based and expressed his or her concerns orally or in writing at that meeting or hearing, or unless such person filed papers with the PVWMA setting forth such person's concerns prior to such meeting or hearing.

## 1.06.02 PUBLIC HEARING RIGHTS OF APPLICANTS AND INTERESTED PARTIES

An applicant, or any interested person, other than an applicant, may attend any public meetings or public hearings at which the PVWMA considers an appealable decision and may submit such written and documentary evidence as may be relevant to the consideration of an said appeal. Any party other than the applicant who submits written or documentary evidence to the PVWMA with regard to an appeal shall simultaneously submit copies of all such information to the applicant and shall show proof of such submittal to the PVWMA along with the written information provided to the PVWMA. Any person may, in writing, request a copy of the PVWMA's written decision.

## 1.06.03 PROCEDURE ON APPEAL

A. Any appeal authorized by this ordinance shall be filed and processed as provided in this ordinance, as now in effect or as subsequently amended or superseded. Any appeal must be in writing and must state the grounds upon which the appeal is made.

B. Any appeal must be filed with the PVWMA no later than ten days after the date the General Manager issues an appealable decision. A decision is issued when the decision is set forth in writing and personally delivered to the applicant, or on the fifth day after mailing said decision to the applicant, to the address provided by the applicant for such mailing. As to an interested person (other than an applicant) who has requested a copy of the written decision, the General Manager's written decision is issued when it is personally delivered to such person or on the fifth day after mailing said decision to such person, to the address provided by such person for such mailing.

C. The appeal of any decision made by the General Manager following a public meeting or public hearing shall be limited to the issues raised at the public meeting or hearing and thereafter specified in the written appeal. The appeal of any decision made by the General Manager without a public meeting or public hearing may consider any issue that might have been raised at a public hearing or meeting, provided that such issue must be specified in the written appeal.

D. At the hearing on appeal, the Board of Directors of the PVWMA will consider de novo the issues that are before the board on the appeal. The findings on the appeal shall be final and conclusive in the matter.

E. Any interested person seeking judicial review pursuant to Code of Civil Procedure (CCP) section 1094.5 of any final decision, as defined in CCP Section 1094.6(e), of the PVWMA, or any boards, commissions, officers, agents or employees of the PVWMA empowered to make such decisions may do so only if the petition for writ of mandate pursuant to CCP Section 1094.5 is filed within the time limits specified in CCP Section 1094.6.



PART VII - PENALTIES

## 1.07.0 1 INFRACTION

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

## 1.07.02 PUBLIC NUISANCE

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

## 1.07.03 CONTINUING VIOLATIONS

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.

## 1.07.04 FINE

A. Any person who violates any provision of this ordinance which prohibits or restricts the pumping of groundwater shall be assessed a fine of \$100 for each acre-foot (or portion thereof) of water pumped in violation of this ordinance.

B. Any person who violates any other provision of this ordinance shall be assessed a **fine** of \$100 for each violation.

## 1.07.05 LIABILITY FOR COSTS OF ENFORCEMENT

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

- A. Cost of investigation
- B. Court costs
- C. Attorney fees
- D. Cost of monitoring compliance

PART VIII - CONCLUDING PROVISIONS

## 1.08.0 1 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 portion of this ordinance, including any other section, subsection, sentence, clause, or phrase therein.

SECTION II. EFFECTIVE DATE This ordinance shall take effect 30 days **after** its **final** adoption by the Board of Directors.

PASSED AND ADOPTED this \_\_\_\_ day of , by ,the following vote:

AYES:  
NOES:  
ABSENT:

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ATTEST:

Clerk of the Board