Attachment 3

LAW OFFICE OF MARC CHYTILO, APC

Environmental Law

September 10, 2018

Santa Barbara County Planning Commission Santa Barbara County 123 E. Anapamu Street Santa Barbara, CA 93101

RE: North Fork Ranch Frost Ponds Appeal, Item # 3, 9/12/18

Dear Chair Blough and Honorable Planning Commissioners,

This office represents Roberta Jaffe and Stephen Gliessman, Appellants in this matter. Ms. Jaffe and Mr. Gliessman are Cuyama Valley residents and farmers of a 5-acre dry-farming operation called Condor's Hope Ranch. We've submitted several letters into the record to support the appeal, including a report by Professional Hydrologist Dennis Gibbs who has 20 years of experience monitoring and reporting on water conditions in the Cuyama Valley, a review of the biological surveys prepared by Dr. Gliessman who has almost 50 years of experience in botany and ecology, and a letter from this office addressing the fundamental legal issue that the consumptive water use of the frost protection system must be considered in the environmental analysis, not only the evaporation from the 3 frost ponds themselves, since CEQA requires analysis of "the whole of a project." (Letter dated September 7, 2018.)

The Cuyama Groundwater Basin is in a state of Critical Overdraft, with groundwater extraction proceeding at twice the rate of groundwater recharge. Groundwater is the exclusive source of water in the Cuyama Valley, and without adequate groundwater agriculture and human habitation would not be possible. The County of Santa Barbara, along with the three other counties that overly portions of the Cuyama Groundwater Basin, is participating in the development of a Groundwater Sustainability Plan (GSP) required by the Sustainable Groundwater Management Act (SGMA), that will regulate groundwater use in the Cuyama Valley in order to stop the overdraft of this groundwater basin. Ms. Jaffe is the Chairperson for the Standing Advisory Committee to the Cuyama Basin Groundwater Sustainability Agency (GSA), a stakeholder advisory committee that advises the GSA Board of Directors regarding the development of the GSP.

Because the Cuyama GSP is not yet final, it is incumbent on the County's planning process to carefully scrutinize projects such as the North Fork Frost Pond Project ("Project") which include large-scale extraction of groundwater from this critically overdrafted basin. Unfortunately the County's Planning Department so far has failed to give this Project the scrutiny it requires, by only counting the tiny fraction of water that will evaporate from these ponds and ignoring the large amount of water that is sprayed to protect the grapes from frost, which are all parts of the Project.

RECEIVED

SEP 1 0 2018

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT

By email to dvillalo@co.santa-barbara.ca.us

AGEN	DA ITEMS
TEM #:	3
MEETING DATE:	9/12/18

When all the Project's water use is totaled, the impacts on the critically overdrafted Cuyama Groundwater Basin are significant, but may be avoidable.

Whether or not the Mitigated Negative Declaration (MND) must consider the full consumptive water use of the Frost Ponds Project is a key issue in this appeal, and in our September 7, 2018 letter we make a clear case for why the California Environmental Quality Act (CEQA) requires that it does. If the amount of water required to fill the frost ponds and protect the grapes from frost is included, the Project clearly exceeds the County's threshold for identifying a significant impact to groundwater resources in the critically overdrafted Cuyama Groundwater Basin, and the Planning Commission may not approve the Project without an Environmental Impact Report ("EIR").

This letter explains that even considering only evaporation from all of the Frost Protection System (the MND considered only evaporation from the ponds themselves), the amount of water consumed exceeds the County's CEQA Threshold and thus there is substantial evidence supporting a fair argument that the Project may result in significant impacts to groundwater resources requiring analysis, and avoidance or mitigation in an EIR.

Additionally, the Staff Report and MND omit a discussion of the Project's consistency with the Comprehensive Plan Conservation Element's Groundwater Policies. Discussed herein, the Project is inconsistent with these policies, precluding the Commission from making required findings of approval.

1. The Project and its MND Violate the California Environmental Quality Act

"The foremost principle under CEQA is that the Legislature intended the act 'to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*The Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 926.) "The EIR requirement is the heart of CEQA." (Cal. Code Regs., tit. 14¹, § 15003 (a).) An EIR identifies the significant effects a Project will have on the environment, identifies alternatives to the project, and indicates the manner in which the significant effects can be mitigated or avoided. (Public Resources Code § 21002.1(a).) Its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made", protecting the environment as well as informed self-government. *Citizens for Goleta Valley v. Board of Supervisors of Santa Barbara County* (1990) 52 Cal. 3d 553, 564.

CEQA "creates a low threshold requirement for initial preparation of an EIR and reflects a preference for resolving doubts in favor of environmental review when the question is whether any such review is warranted." *League for Protection of Oakland's Architectural and Historic*

¹ This code section referred to hereafter as the "CEQA Guidelines" or "Guidelines."

Resources v. City of Oakland (1997) 52 Cal. App. 4th 896, 904-905; Public Resources Code § 21151. Reliance on a Negative Declaration or Mitigated Negative Declaration is only allowed where "mitigation measures would mitigate the effects to a point where clearly no significant effects would occur" and "there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment." (CEQA Guidelines 15070(b).)

If a lead agency is presented with substantial evidence supporting a fair argument that a project may have a significant effect on the environment, "the lead agency <u>shall</u> prepare an EIR <u>even though it may also be presented with other substantial evidence that the project will not have a significant effect</u>." (CEQA Guidelines § 15064 (f)(1).(emphasis added)) Substantial evidence "means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. (Guidelines § 15384 (a).) Substantial evidence includes facts, reasonable assumptions predicated on facts, and expert opinion supported by facts. (Pub. Res. Code, § 21082.2 (c); Guidelines, § 15384.)

"[I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is a disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR." (Guidelines § 15064 (g).)

Discussed below, there is substantial evidence supporting a fair argument that the Project may cause potentially significant impacts in the areas of groundwater, land use, and biological resources, and accordingly CEQA clearly requires that an EIR be prepared. An EIR would include a thorough assessment of the baseline environmental conditions with respect to groundwater and biology, a complete impact analysis, and importantly would identify a reasonable range of alternatives to the Project that would accomplish the Project's basic objective (frost protection) while substantially reducing or avoiding the Project's significant environmental impacts.

> i. Excluding Water Used By the Project from the Environmental Analysis Is Plainly Contrary to CEQA

Our letter of September 7, 2018 explains in detail why CEQA clearly requires that the MND analyze the *whole of the development proposal* with the potential to impact the environment, which includes the Project's consumptive water use. The County may not cut the project up into separate pieces to avoid environmental review – if a portion of the project is discretionary and subject to environmental review, and there is substantial evidence an impact may be significant, all of the project's impacts must be evaluated in an EIR.

ii. Last Minute Changes to the Project Description

The Final MND for the Planning Commission's consideration was released to Appellant on Thursday September 6. Compared to the prior Final MND from August 2017, the Project Description changed significantly. The Zoning Administrator considered an MND that included 535 acres of grapes, with a projected addition of 100 additional acres, dated August 11, 2017. This increased by nearly 100% to 1000 acres of grapes in the Project Description released last week. Detail on the spray nozzles was provided for the first time in the latest MND, enabling calculation of evaporative emissions from frost protection operations. The all-important duration of frost events was provided for the first time in last week's MND, but projected that the spray operations would require only 2 hours per frost event, contrary to generally accepted and observed characteristics of these events which typically entail 5 hours of spraying, on average. These changes and omissions prevented an accurate assessment of the Project's total water use and other critical elements of the Project Description that are necessary for an adequate environmental review process. An accurate and stable Project Description is essential for an adequate environmental review process, and the significant changes to the project disclosed late in this process precludes informed public participation. (County of Invo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193.)

- iii. Substantial Evidence Supports a Fair Argument that the Project May Result in Potentially Significant Impacts to the Critically Overdrafted Cuyama Groundwater Basin
 - 1. The Project's Consumptive Water Use Far Exceeds the County's Threshold for the Cuyama Groundwater Basin

Discussed in our September 7, 2018 letter, the County erred in excluding the Project's full consumptive water use from the MND's impact analysis. The MND clarifies that the Project would utilize approximately 25 AF per 3-hour frost event (MND p. 37), meaning the County's 31 AFY threshold would be exceeded after only two frost events. The quantity of water used just to fill the ponds for just two events exceeds the threshold by over four-fold! The Frost Ponds are needed to operate the Frost Protection System – without them, the system cannot operate. Accordingly when the *whole of the Project* is considered, as CEQA requires, the County's threshold is exceeded, resulting in a potentially significant Project-specific and cumulative impacts (*see* MND p. 38, clarifying that the 31 AFY threshold also applies to determining whether the Project has a cumulatively considerable impact) that must be addressed in an EIR.

2. The MND Understates Impacts from Evaporation

Even if the County can find some justification to consider the Project's impact narrowly by looking only at evaporation from the Frost Pond System, there is additional substantial evidence that even the evaporation losses triggered by approval of the Frost Ponds themselves will cause a

significant impact. Attached hereto is a memo from Katherine Anderson on Evaporative Loss, which explains this issue in detail, and includes the data and references used in the analysis.

The MND significantly understates the quantity of water that will be lost to evaporation by failing to consider evaporative losses occurring from spray irrigating for frost-protection. Water not directly or indirectly used in support of the existing vineyards, such as evaporative losses, must be considered for the County's 31 AF threshold. Since the amount of water lost through evaporation exceeds this threshold, the impact is considered significant. Even at cold temperatures, water will evaporate from the sprayed water as it travels through the air.

Meteorological data from the nearby California Irrigation Management Information System (CIMIS) station was reviewed to identify the quantity and duration of frost events in the Cuyama Valley. The use of real-world data allows a clearer picture of potential water use and evaporation at the North Fork Ranch vineyard. From this data, nine frost events totaling 45 hours during the growing season were identified, with an average duration of 5 hours. This is much greater than the applicant's claim that *"the vines would be sprayed for a duration of two to three hours; and not all frost events require that the entire vineyard be sprayed (MND, p. 37)."* Since the vineyard lies an average of 375 feet lower in elevation than the CIMIS station, the temperatures at the North Fork Vineyard will be colder than those recorded at CIMIS Cuyama and be subject to even more frost events with longer durations, and would indeed represent the entire vineyard being sprayed for frost protection.

The amount of water that would be used for frost protection during one growing season and subsequently the evaporative loss associated with that sprayed water was calculated based on the CIMIS data, resulting in a total of 372.87 AF applied, and 18.14 AF lost to evaporation by the frost sprinklers. (See attached Anderson Memo.)

The project claims no significant impact through water loss because the reservoir evaporative losses are calculated to total 26.28 acre feet. However, the Project's additional evaporative losses of 18.14 AF from the frost sprinklers themselves increase the total water loss to 44.42 acre feet, well past the threshold of 31 acre feet per year. If the amount applied for frost protection is considered along with the amount evaporating from the frost reservoirs, it totals an astonishing 399.15 AF.

3. Substantial Evidence of a Fair Argument Notwithstanding the County's Numerical Impact Threshold

The County's 31 AFY threshold was calculated based expressly on a lesser level of overdraft based on 1992 data showing an overdraft of 28,525 AFY, whereas the MND identifies a current overdraft of at least 30,000 AFY. (Gibbs Report, p. 3.) Mr. Gibbs observes that the thresholds are "severely out of date (25 years old)" and concludes "[t]he 31 AFY Threshold should

be recalculated to reflect more current data on the status of the Cuyama Groundwater Basin." (Gibbs Report, p. 3.) Discussed in section 2.i below, the County also has an action item in its Groundwater Resources policies requiring that the County update its groundwater thresholds as new data becomes available and as overdraft conditions persist (*see* Comprehensive Plan, Conservation Element Groundwater Resources Section, **ACTION 3.10.1.**)

Moreover, as explained in the Gibbs Report, according to the County's CEQA Thresholds and Guidelines Manual,

Groundwater supplies are limited in terms of the annual amount of water which can be withdrawn without causing a long term drop in water levels ("Safe Yield") and in the amount of total storage of a basin which can be removed without significant environmental effects ("Available Storage"). These limits make conservative use of water a necessary policy in Santa Barbara County in order to avoid or minimize significant and lasting adverse environmental effects.

(Gibbs Report, p. 3, County CEQA Thresholds Manual, pp. 67-68.) Based on this language in the County's thresholds, and his considerable knowledge and expertise regarding the Cuyama Groundwater Basin, Mr. Gibbs concludes:

Based on the overdrafted condition of the Greater Cuyama Groundwater Basin, which per CDWR Bulletin 118 includes the Cottonwood Sub-basin, I believe that the project could result in Potentially Significant Impacts in these areas of Water Resources [subsections a, and g-j of the MND].

(Gibbs Report, p. 3.)

Discussed above, this expert opinion supported by facts that the Project may result in potentially significant impacts to groundwater resources is grounds for requiring an EIR. (See Pub. Res. Code, § 21082.2 (c); Guidelines, § 15384; see also Guidelines § 15064 (g).) This is the case even if an adopted significance threshold is not triggered. (See Mejia v. City of Los Angeles (2005) 130 Cal.App.4th 322, 342 (a public agency cannot apply a threshold of significance or regulatory standard in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect.))

iv. Substantial Evidence Supports a Fair Argument that the Project May Result in Significant Land Use Impacts Resulting from Policy Inconsistencies

"[I]f substantial evidence supports a fair argument that the proposed project conflicts with policies [adopted for the purpose of avoiding or mitigating an environmental effect] this constitutes grounds for requiring an EIR." (*Pocket Protectors*, 124 Cal.App.4th at 930; CEQA Guidelines, App. G, § IX (b).) Here, substantial evidence supports a fair argument the Project is inconsistent

with groundwater conservation policies in the County's Comprehensive Plan, adopted for the purpose of conserving the County's groundwater resources. Specifically, the County's Conservation Element includes a Groundwater Resources Section, which sets forth various policies and actions that are directly applicable to this Project, but were not analyzed in the MND or Staff Report. The Project results in numerous inconsistencies with the applicable policies and actions in the Groundwater Resources Section, which are explained, along with the evidence supporting the inconsistency, in section 2.i of this letter (below).

v. The MND Fails to Accurately Describe the Environmental Setting for Biological Resources and Potentially Significant Impacts to Sensitive Plants May Result from Project Construction

To enable an assessment of whether a project's environmental effects are likely to be significant, the environmental document must describe the "baseline" for environmental analysis. (Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310, 315.) The baseline normally consists of "the physical environmental conditions in the vicinity of the project, as they exist at the time ... environmental analysis is commenced" (Id., CEQA Guidelines § 15125 (a).) If the description of the environmental setting of the project site and surrounding area is inaccurate, incomplete or misleading, an adequate analysis of environmental impacts of a project is not possible. (Cadiz Land Co. v. County of San Bernardino (2000), 83 Cal.App.4th 74, 87.)

Here, the MND does not include an accurate or complete description of the environmental setting with respect to biological resources including sensitive species. Dr. Gliessman, who is highly experienced and qualified in the area of botany and ecology, prepared a letter dated September 6, 2018 addressing the adequacy of the natural resource surveys provided by the Applicant. Dr. Gliessman concluded that because the biological surveys carried out by Kevin Merk Associates (KMA) were conducted during a period of extended drought, they are insufficient to identify several endangered and threatened species of plants that may be impacted by the Project. To support his conclusion Dr. Gliessman refers to a paper on the impact of drought in the Carrizo Plan and northern Cuyama Basin, in which a very dramatic reduction in observed populations of all plant and animal species three years into the drought. (Gliessman Letter, p. 1, fn. 1.)

The inadequate biological surveys result in an incomplete and inaccurate environmental baseline, which render the MND's impact assessment inadequate. (*See Cadiz*, 83 Cal.App.4th at 87.)

Moreover, while the absence of evidence in the record on a particular issue does not automatically give rise to a fair argument that a project may have a significant effect on the environment, an agency "should not be allowed to hide behind its own failure to gather relevant data" and "[d]eficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." (Sundstrom v. County of Mendocino (1988) 202

Cal. App. 3d 296, 311.) Here, Dr. Gliessman also identifies a list of 25 threatened plant species, including four that have been collected in the past in the Project's immediate vicinity and another 13 that have been found in nearby Cuyama Valley areas (Id., p. 2, fn. 2.) Based on the likely presence of these sensitive plants, Dr. Gliessman concludes:

in my opinion, and based on my review of the Project plans and MND, the potential presence of the above plants in and around the Project site creates a reasonable possibility that the Project may result in significant impacts according to the Count's thresholds for impacts to flora through loss or disturbance of unique, rare and threatened plant communities, and a reduction in the numbers of unique, rare or threatened species of plants (MND p. 11.)

Given the deficient biological resource surveys, the expert fact-based opinion of Mr. Gliessman clearly constitutes substantial evidence supporting a fair argument of a potentially significant impact to biological resources. (*See Sundstrom*, 202 Cal. App. 3d at 311; Pub. Res. Code, § 21082.2 (c); Guidelines, § 15384.))

vi. The MND's Analysis of Air Quality Impacts is Deficient, and the Conditions Fail to Identify What Mitigation Measures Are Required to Mitigate Impacts to Air Quality

The Project entails grading in excess of 250,000 cy of earth (cut+fill) over an approximate one year construction period. The grading will be performed with large "earthmoving equipment" that is not further defined or specified. APCD "recommended" mitigation measures suggest that the minimum size necessary equipment be used for projects to reduce emissions and that CARB Tier 3 diesel powered equipment be used "to the maximum extent feasible." The MND and Project Description do not specify what equipment will be used or for how long it will operate, and there is no calculation of the Project's total emissions of ozone precursors, toxic diesel PM_{2.5} or larger PM₁₀ particulate matter. The Project is upwind of the economically disadvantaged community of New Cuyama and air pollution will be generated in and transported between several counties, each of which exceeds state and/or federal health-based ambient air quality standards for pollutants or precursors the Project will generate.

The MND sweeps the issue of air pollution from construction period activities under the rug, noting that there is no established County CEQA threshold for short-term construction-related emissions. The County cannot simply ignore this impact, even if an adopted significance threshold is not triggered. (*See, supra, Mejia v. City of Los Angeles,* 130 Cal.App.4th at 342 (a public agency cannot apply a threshold of significance or regulatory standard in a way that forecloses the consideration of any other substantial evidence showing there may be a significant effect.)) The magnitude of the grading, and extended duration of this project extends beyond what may be considered short-term and involves emission that should be calculated and compared to the applicable thresholds and the applicable State Implementation Plan/State Clean Air Plan emissions

inventories. These plans define the size of emissions inventories modelled in regional air quality models for purposes of projecting whether the region in question can attain and maintain the health-based ambient air quality standards. Unless the emissions inventories and regional air models include these considerable emissions, they conflict with state and federal air quality attainment plans and implicate cumulative impacts. *See, generally, Kings County Farm Bureau v. Hanford* (1990) 221 Cal.App.3rd 692.

Typically MNDs will include a list of the equipment to be used and an estimate of the time such equipment will be running. This information is ordinarily included to establish whether the project will exceed the County's CEQA thresholds of 55 lbs of NOx or ROG, or 80 lbs of PM₁₀ per day for total air pollution. Large construction projects are defined to cause a significant impact when annual emissions exceed 25 tons/year. (*See*, Initial Study/Mitigated Negative Declaration, Peabody Stadium Replacement, DUDEK, March 2015, page 31.) The MND's limited information concerning the Project's air pollution emissions, such as the equipment used and expected total hours of operation prevents any analysis of this impact.

While the MND states that the project will be required to implement standard APCD conditions, there is no condition of approval establishing this or specifying what is required. The APCD letter, attached to the conditions document, including both state-mandated emissions control measures and "recommended" measures. The Conditions fail to articulate which is required of the project, and the MND lacks information to determine whether whatever mitigation measures is imposed will be effective at avoiding significant impacts to air quality.

- 2. Substantial Evidence Does Not Support the Administrative Findings
 - i. The Project Is Inconsistent with the Comprehensive Plan, State planning and zoning laws, and the LUDC

As mentioned in section 1.iii, above, the Project is inconsistent with a number of goals, policies, and actions contained in the County's Comprehensive Plan, Conservation Element, Groundwater Resources Section. The Staff Report did not include an analysis of the Project's consistency with these policies. The most relevant of these Groundwater Resources provisions, and the evidence supporting inconsistencies, are discussed below.

Action 3.3.2: The County shall conserve waters to the extent feasible through exercise of the County's discretionary land use planning and permitting decisions, and shall promote such conservation through related public and private actions.

The use of spray irrigation for frost protection is contrary to the County's groundwater conservation goals and specifically Action 3.3.2. More efficient irrigation methods (finer spray), as well as other alternatives such as wind machines, late pruning (see e.g. <u>https://www.kj.com/blog/frost-protection-</u>

<u>vineyards.</u>) should be identified and evaluated as feasible alternatives to the Project through the EIR process.

POLICY 3.4: The County's land use planning decisions shall be consistent with the ability of any affected water purveyor(s) to provide adequate services and resources to their existing customers, in coordination with any applicable groundwater management plan.

With the state of critical overdraft, and limited recharge, the ability of existing customers to obtain adequate groundwater is not assured as Policy 3.4 requires. The Gibbs' report explains that groundwater extracted from the Cuyama Groundwater Basin is tens of thousands of years old and that the "mining of groundwater" is occurring. "Given residential wells in the area are shallower than agricultural wells, this mining of groundwater could result in severe implications for residents and farmers using residential-scale wells like Condor's Hope Ranch." (Gibbs Report, p. 2.) Appellants' own well in the Cottonwood Canyon area has shown steady declines, explained in Appellants letter of September 10, 2018 and supported by well data. Specifically, the Appellants letter states:

Santa Barbara County has been monitoring several wells in the Cottonwood Canyon area since September 2016. While data is too short-term to show permanent trends, our own well (data available from Santa Barbara County Water Agency) has shown a worrisome downward trend:

(Numbers are depth to static groundwater level) October 2016: 119.4 feet (at end of 5 years of drought) September 2017: 120.5 feet (at the end of an above average wet year) September 2018: 123.3 feet (at the end of a drought year)

While more study is needed to verify the cause of this downward trend, it correlates with the increased pumping by the North Fork Vineyards.

(Jaffe-Gliessman letter, September 10, 2018, p. 2.)

Action 3.4.3: In areas without a groundwater management plan accepted by the County, County <u>land use plans and decisions shall account for a prudent "margin of safety" against</u> <u>errors in supply/demand estimates, safe yield and available storage estimates, changes in any</u> <u>other relevant conditions in a basin, and other possible unforeseen circumstances.</u> (emphasis added.)

The County has not taken a prudent approach to this Project. Even when only evaporation from the surface of the reservoirs is considered, 26 AFY is close to the 31 AFY threshold. As explained in the Gibbs' report, there are many uncertainties affecting the future availability of water in this area including the effect of increasing climatic uncertainty on groundwater recharge. (Gibbs Report, pp. 2-3.) In Mr. Gibbs' professional opinion based on his extensive knowledge regarding this particular groundwater basin, "[u]ntil water augmentation and recharge projects are planned, funded and

undertaken to increase percolation to 'offset further degradation' and examine 'sustainability' as contemplated by SGMA, *no projects which increase extraction of groundwater should be approved.*" (Gibbs Report, p. 2 (emphasis added).)

POLICY 3.5: In coordination with any applicable groundwater management plan(s), the County shall not allow, through its land use permitting decisions, any basin to become seriously overdrafted on a prolonged basis.

POLICY 3.6: The County shall not make land use decisions which would lead to the substantial over commitment of any groundwater basin.

ACTION 3.5.1: Based on input from the County Water Agency and P&D, the Board, in coordination with the responsible water purveyor(s), shall designate any basins within the county as "seriously overdrafted" if the following conditions are present: Prolonged overdraft which results or, in the reasonably foreseeable future (generally within ten years) would result, in measurable, unmitigated adverse environmental or economic impacts, either long-term or permanent. Such impacts include but are not limited to seawater intrusion, other substantial quality degradation, land surface subsidence, substantial effects on riparian or other environmentally sensitive habitats, or unreasonable interference with the beneficial use of a basin's resources. The County's fundamental policy shall be to prevent such overdraft conditions. (emphasis added)

ACTION 3.5.2: In seriously overdrafted basins, the County shall not approve discretionary development permits if such development requires new net extractions or increases in net extractions of groundwater, pending development and County acceptance of a basin management plan, consistent with the Groundwater Management Act or other applicable law, which adequately addresses the serious overdraft. (emphasis added.)

The Project is a discretionary development permit that requires increases in net extractions of groundwater in a seriously overdrafted basins in violation of Policies 3.5 and 3.6. Pursuant to Action 3.5.2, the County is prohibited from approving such a discretionary permit.

ACTION 3.10.1: The County shall continue to refine and update its "significance thresholds" as new data becomes available and as overdraft conditions persist, as specified in the County's CEQA Guidelines. The County's acceptance of duly prepared and adopted groundwater management plans also may necessitate the adjustment of appropriate groundwater thresholds.

With respect to Action 3.10.1, the County has failed to update its significance thresholds as new data has become available about the severity of the overdraft conditions in the Cuyama Groundwater Basin. Discussed in the Gibbs' report, the County's 31 AFY threshold was calculated based on a lesser level of overdraft based on 1992 data showing an overdraft of 28,525 AFY, whereas the MND identifies a current overdraft of at least 30,000 AFY. Mr. Gibbs concludes "[t]he 31 AFY Threshold should be recalculated to reflect more current data on the status of the Cuyama Groundwater Basin." (Gibbs Report, p. 3.)

The significant inconsistencies with these Comprehensive Plan goals, policies, and actions intended to protect groundwater resources precludes the Commission from finding that the Amendment is consistent with the Comprehensive Plan.

ii. There Are Not Adequate Water Resources to Serve the Project

Pursuant to CUP Finding 4, the Commission must find that there are adequate public services to serve the Project including an adequate water supply. The proposed Findings of Approval only identify the 26 AFY from evaporation from the reservoirs. Explained above and in our September 7, 2018 letter, it was error for the County to focus its impact analysis only on evaporation from the reservoirs. Likewise in the context of this finding, determining whether there is adequate water to serve a Project necessitates an evaluation of the actual water required to serve the Project. If the Applicant's wells are not able to produce the water needed to fill the reservoirs and achieve the Project's purpose of frost protection, the environmental damage and cost of reservoir construction will be for naught. Clearly the Commission must look to the Project's actual, total water demand in the context of the Cuyama Groundwater Basin's Safe Yield before this Finding can be substantiated.

3. Conclusion

For the foregoing reasons, we respectfully request that the Commission grant our appeal, and direct the preparation of an EIR.

Sincerely,

LAW OFFICE OF MARC CHYTILO

Marc Čhytilo Ana Citrin For Appellants Jaffe and Gliessman

Attachment: Memo from Katherine Anderson on Evaporative Loss

MEMORANDUM

TO: Marc Chytilo

FROM: Katherine Anderson

SUBJECT: Evaporative Water Loss at the North Fork Ranch Vineyard, Cuyama, CA North Fork Ranch Frost Ponds Appeal, Item # 3, 9/12/18

DATE: 9/10/18

The North Fork Ranch vineyard has proposed three reservoirs to be installed to impound ground water to be used as frost protection for 1,000 acres of vines. This vineyard is located on Assessor Parcel Number 147-020-045 off the 166 Highway bordering the Cuyama River in Cuyama, CA. The majority of the subject vineyard lies at an elevation between 1700' to 1850' above sea level. These reservoirs require a discretionary Minor Conditional Use permit, subject to the water use threshold of 31 acre feet in the Environmental Thresholds Manual. Although stated that groundwater used for agricultural irrigation does not count toward this threshold, water not directly or indirectly used in support of the existing vineyards, such as evaporative losses, must be included. If water lost through evaporation exceeds this 31 acre foot threshold, the impact is considered significant.

Even at low temperatures, when water is applied by overhead sprinklers, a percentage of the water will evaporate as it travels. This can be calculated when combined with meteorological data. The project claims no significant impact through water loss because the reservoir evaporative losses are calculated to total 26.28 acre feet. However, the project did not consider evaporative losses by the frost sprinklers themselves, pushing the total to 44.42 acre feet, well past the threshold of 31 acre feet of water losses.

Frost protection in grapes

Frost protection of agricultural crops relies on several different methods, one of which is the physics of freezing water when applied to plants. To put it simply, for water to freeze, it has to give off heat stored in its molecular bonds. That microburst of heat given off as water transforms from liquid to solid ice is enough to protect the surface of a plant from damage, if applied correctly. The usual method is to apply water with sprinklers emitting the correct volume of water so that a thin film coats the plants every 30 seconds when temperatures are low enough to cause damage.

For grapes, about .11 inch of water per hour per acre needs to be applied to provide adequate frost protection, which translates to approximately 50 gallons per minute per acre (McGourty, 2018).

Grapevine Frost Tolerance

The proposed North Fork vineyard frost ponds are supposed to be filled from January to May of

table in temperature	Soliditity in this tito and potition
Stage of growth	Temperature at 50% destruction of tissue
Dormant Bud	20 degrees F or below
Dormant Swollen Bud	26 F
Bud Break	28F
One Leaf Unfolded	28-29 F
Two Leaves Unfolded	29-32 F Frost tolerance of Pinot Noir grapevines, Nesbitt 2018. Virginia Tech University https://aggie-horticulture.tamu.edu/vitwine/files/2017/06/ Frost-and-Freeze-Protection-Strategies.pdf

Table 1. Temperature Sensitivity in Pinot Noir Grapevines

each year for frost protection. After May, the remaining water will be used for irrigating the vineyard, leaving a three-foot depth in the ponds all year. Although viticultural experts opine that the vines currently would not need frost protection in January, the increasing number of warm winters may push bud break earlier and earlier. Early season bud break is subject to more frequent cold snaps. According to Glenn McGourty, Winegrowing and Plant Science Advisor, University of California Cooperative Extension (UCCE), these stages of growth can be different each year. The earliest he's seen bud break is Feb 24th (McGourty, personal communication 2018). Warm spells during the normal winter dormancy period can cause buds to break too early, when the risk of frost in early spring is high in the Cuyama area. Indeed, the Mitigated Negative Declaration for the project states that "the months of February, March and April…is the part of the year when frost would have the greatest potential to result in damage to the existing vineyards." (p 37).

Grapevines break dormancy in stages; fully dormant stage, swollen bud stage, bud break, and leafing out. Each stage has a different critical temperature and can differ year to year. Grape variety plays a part as well - some grape varieties leaf out early, and some late. Pinot Noir grapes, such as planted at the North Fork vineyard, are known for early bud break (McGourty, personal communication, 2018).

These damaging temperatures are determined by both the dry bulb and the wet bulb temperatures. 'Dry bulb' refers to dry air temperature. 'Wet bulb' temperatures are measured by taking into account the relative humidity, and is a better measure of how cold it "feels." When the air (dry bulb) temperature is freezing at 32 degrees F and the wet bulb temperature is 27 degrees, the plants are experiencing 27 degrees (AWIS, 2018), and the crop could be lost. For meteorological data collection, wet bulb temperature is often described as the dew point (Battany, personal communication, 2018).

Estimating Sprinkler Use

In order to estimate the amount of water that would be used for frost protection and the amount of evaporation taking place, it is necessary to estimate the number and duration of frost events when grapevines would be vulnerable and require overhead sprinklers. Evaporative water loss is dependent on many different factors, such as air temperature, wet bulb temperature, wind speed, and relative humidity. Since predicting each of these factors in a future scenario is not possible, the precise number, duration, and evaporation rates of future hypothetical frost events would be difficult to forecast. Therefore, real-world weather data was obtained from a nearby agricultural recording station, and that data used to create a estimate of water use and evaporative losses during actual conditions.

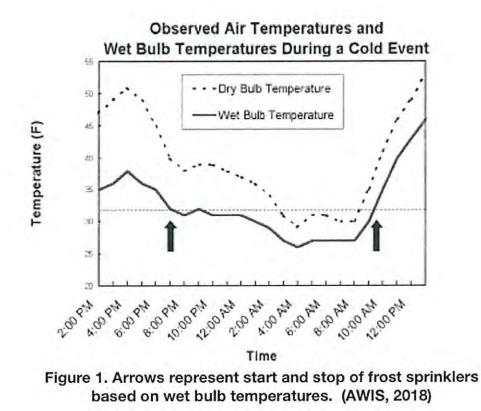
The California Irrigation Management Information System (CIMIS) station in Cuyama is located 11.49 miles from the North Fork vineyard, near the Cuyama River at an elevation of 2190 ft above sea level. This monitoring station has the longest contiguous history of data recording of all of the CIMIS stations, and records weather data as well as pan evaporation data to aid agricultural operations, and is collected on an hourly basis. This hourly data was obtained for the last 10 years and examined for its potential impact on grape crops.

To use this data, we have to 'think like a farmer.' If the forecast is for damaging low temperatures, a farmer will turn on the sprinklers before these temperatures are reached. If sprinklers are to be used, they must be started prior to temps falling below 32 degrees F, or else the farmer runs the risk of applying slushy water or frozen pipes, which would not provide protection (Battany, personal communication, 2018).

This data has its limitations. Being that hindsight is 20/20, this data represents actual temperatures of past events, whereas predicting what the weather will do is far more difficult. In reality, a farmer facing falling temperatures may decide to turn on frost sprinklers far ahead of damaging temperatures. There may be events that merely flirt with damaging temperatures, causing a farmer to turn on the sprinklers 'just in case' rather than risk the crop. Since a vineyard inevitably has cold pockets, the sprinklers may stay on later to provide protection for those spots. Frost sprinklers are often turned on and off manually, meaning that sprinklers stay on in large vineyards until the workers can shut them off (Battany, personal communication, 2018). The coarseness of the data in that it is presented hourly prohibits a fine-tuning of the start and stop times. There may be times where the temperature is above freezing at the beginning of the hour, and dip below freezing before the end of the hour. A farmer would have turned the sprinklers on in the meantime, and that use is not captured by hourly data. Sprinklers are often left on well into the 40F range, to prevent a freezing jolt from ice when molecular heat stops forming (Battany, personal communication, 2018).

Sprinkler Run Times

Wet bulb temperature is the best indicator of when to start frost protection. Frost sprinklers should be turned on before wet bulb temperatures reach critical temperatures, if the dry bulb temperatures are predicted to dip into freezing. As noted above and in Figure 1 below, the sprinklers should be started well ahead of the air temperature reaches freezing.



California Irrigation Management Information System (CIMIS) data

The year 2013 was chosen to represent a "worst-case" scenario, as it was a reasonably cold spring with a low rainfall winter, which forced bud break relatively early (Jervis, 2015). This data is attached to this report as Appendix A. From this data, the number of damaging temperature events can be calculated to provide a projection of how much water would have been applied for a 1,000 acre vineyard. The percentage of water that would have been lost to evaporation can then be calculated based on real-world data.

2013 was a relatively dry winter, with some warm spells. Warming air and soil temperatures pushed bud break early in many areas. Though a definitive bud break date is not available for the North

Fork Ranch vineyard itself, it has been estimated at late March for that year based on local viticultural reports that discuss regional bud break (Jervis, 2015). Since grapevine buds are susceptible to damage prior to unfurling leaves, it is assumed that a grower would begin frost protection most conservatively at 10 to 14 days before bud break, when the bud tissues are beginning to emerge from dormancy and swell.

Given this estimated date of bud break, for a conservative estimate of when frost protection would have begun for the year 2013, this report includes damaging frost events from March 10 to May 31.

The 2013 frost events listed below represent a very conservative interpretation of the data and narrow window of sprinkler operation. The events most likely to cause a farmer to turn on the frost sprinklers, based on dry bulb and wet bulb temperatures, were identified and used. For the purpose of this investigation, it is assumed that all sprinklers are turned on and turned off at the same time, and that the sprinklers are not left on until temps are in the upper 40 F range, as sometimes is done. Under actual ground conditions, the frost sprinklers would likely be run for one to four hours more for each frost event.

From March, 2013, to May 2013 there were 9 frost events that would injure grapevines, totaling 45 hours (Table 2). Damaging temperatures do not rely solely on air temperature; relative humidity as measured by the dew point is a controlling factor. Therefore, the CIMIS temperature data has been adjusted for the dew point to pinpoint damaging temperatures to grapevines.

	Frost Event Start Date	Average Temp (F)	Average Dew Point/Wet Bulb (F)	Duration (hrs)
March 2013	3/10/13	33.3	30.6	8
-	3/11/13	32.0	26.9	6
	3/23/13	34.2	21.0	6
	3/24/13	34.0	20.8	4
April 2013	4/9/13	32.8	.26.6	5
	4/16/13	34.0	25.8	5
	4/17/13	35.9	23.0	4
	4/18/13	34.3	22.0	5
May 2013	5/23/13	37.7	22.7	2
Total Event Hours				45

Table 2. Frost Events in the Cuyama Valley, Spring 2013

For ease of calculation, dry bulb (air) temperatures, wet bulb (dew point) temperatures, and relative humidity were averaged during each event. Since critical temperatures, and the start and stop times of sprinklers are based on damaging wet bulb temperatures, dry bulb temperatures may average higher than 32 F.

These 9 dates represent the events and length of time that the frost sprinklers would be operating. It is to be noted that the May event did not read freezing air temperatures, but that the wet-bulb temperatures are so low that a grower would certainly start frost protection in case a dip occurred at that stage of vine growth.

Calculating Water Evaporation from Sprinklers

The nature of sprinkler irrigation ejects droplets of water under pressure to cover a large area. During this operation, water vaporizes from the droplets themselves as they travel, from the ground, and from the wet surfaces of the plants. Calculating evaporation from complex surfaces is beyond the scope of this report, but, evaporation rates from the sprayed droplets themselves can be done relatively easily.

The percentage of water evaporation is determined by the intersection of temperature, relative humidity, vapor pressure deficit, wind velocity, nozzle diameter, and water pressure. A nomograph for calculating sprinkler evaporation was developed by Frost and Schwalen in 1955 (Figure 2), and remains the standard to this day (Battany, personal communication, 2018; Zazueta, 2014).

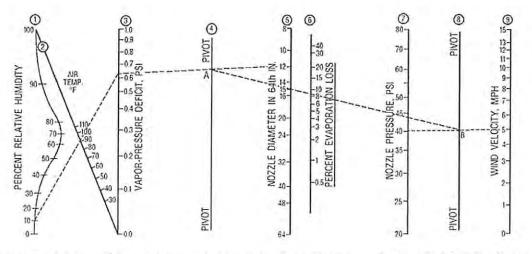


Figure 2. Sprinkler evaporation nomograph (from Frost and Schwalen, 1955).

Zazueta (2014) explains how to use the nomograph:

"The calculations are done in the following steps:

- 1. Draw a straight line from the point representing percent relative humidity in column 1 through the mark for temperature in column 2. Extend this line to indicate a vapor-pressure deficit in column 3.
- 2. Draw a straight line from the point representing vapor-pressure deficit in column 3 to the mark that indicates nozzle diameter in column 5. Locate point A where this line intersects the pivot line in column 4. Point A will be used in step 4 below.
- 3. Draw a straight line from the mark for nozzle pressure in column 7 to the point representing wind speed in column 9. Locate point B where this line intersects the pivot line in column 8. Point B will be used in step 4 below.
- 4. Draw a straight line from point A on the pivot line in column 4 to point B on the pivot line in column 8. Read the percentage of evaporation loss where this line intersects column 6."

To use the nomograph to calculate the evaporation rate of the water sprayed by the frost protection sprinklers at the North Fork Ranch vineyard, the following data must be obtained:

- 1. Relative Humidity
- 2. Air (Dry Bulb) Temperature
- 3. Wind Velocity

	Frost Event Start Date	Average Temp (F)	Average Relative Humidity (%)	Duration (hrs)	Wind Velocity (mph)
March 2013	3/10/13	33.3	90	8	6.0
	3/11/13	32.0	81	6	5.0
	3/23/13	34.2	58	6	5.0
	3/24/13	34.0	58	4	5.0
April 2013	4/9/13	32.8	77	5	3.5
	4/16/13	34.0	72	5	3.0
-	4/17/13	35.9	59	4	4.0
	4/18/13	34.3	60	5	5.8
May 2013	5/23/13	37.7	57	2	4.1

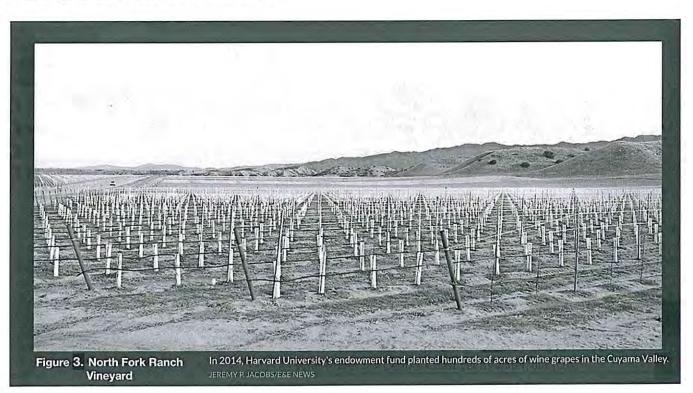
Table 3. Meteorological Data of 2013 Frost Events

4. Nozzle Water Pressure

5. Nozzle Diameter

Table 3 summarizes meteorological data for frost events from March through May, 2013. These numbers represent the average of each data type during each frost event and are used to calculate the evaporation rate of these events.

Nozzle diameter can be inferred by standard practices in frost protection of grapes. In order to provide the necessary .109 (.11) inch of water per hour for adequate frost protection, a 2.3 gallon per minute (gpm), 7/64" nozzle diameter is needed (Rainbird Technical Information Sheet, 2018). Most vineyards, especially vineyards of the size and land slope of the North Fork Ranch, would require an operating pressure of 50 psi (McGourty, personal communication, 2013). The Mitigated Negative Declaration (p.1; 37) and the Staff Report of 2017 (p. 3) both state that frost protection will be provided by the vineyard's existing sprinkler irrigation system. The MND of 8/1/18 provided 45 psi as the operating pressure of the frost protection sprinkler system, however, this information was not provided until Thursday, September 6, after these time-consuming calculations were already done. The difference between the two would be negligible, and as such these results using 50 psi still stand.



A photograph of the North Fork vineyard (Figure 3) shows the conventional Rainbird-style impact sprinkler system described above.

Frost and Schwalen's diagram does not calculate nozzle diameters smaller than 8/64". Today's standard nozzles used for frost protection in grapevines are 7/64". In consultation with Mark Battany,

Viticulture Farm Advisor for San Luis Obispo and Santa Barbara Counties, University of California Cooperative Extension (UCCE), frost protection and grape irrigation specialist, it was decided that a conservative approach would be to place a mark at an appropriate, conservative distance on the non-linear graph line to indicate 7/64", as seen in Figure 2. This distance would represent the best estimate for a nozzle diameter of 7/64".

By entering this data into the nomograph, evaporation percentages of applied water can be calculated for each event (Table 4). Figure 4 below shows an example of this calculation, using data from March 10, 2013.

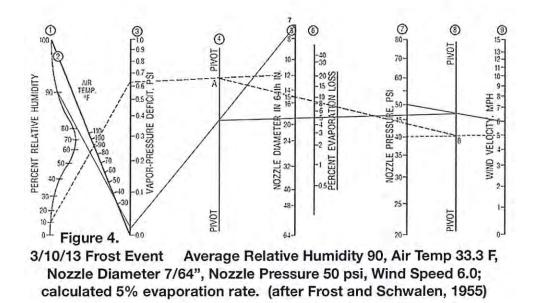


Table 4 below summarizes the calculations of this data for the year 2013, showing the evaporation rates expressed as a percentage of the water applied.

	Frost Event Start Date	Water Applied, in Acre Feet (45 GPM per acre)	Evaporation Rate (%)	Amount of Water Lost to Evaporation, in Acre Feet
March 2013	3/10/13	66.288	5.0	3.314
	3/11/13	49.716	4.9	2.436
	3/23/13	49.716	5.2	2.585
	3/24/13	33.144	5.0	1.657
March Subtotal				9.992
April 2013	4/9/13	41.430	4.3	1.781
	4/16/13	41.430	4.2	1.740
	4/17/13	33.144	4.8	1.591
	4/18/13	41.430	5.4	2.238
April Subtotal				7.35
May 2013	5/23/13	16.572	4.8	0.795
Total Projected Frost Sprinkler Evaporative Loss, Spring 2013		372.87		18.137

Table 4. Projected Evaporation Loss by Sprinklers

These evaporation rates, when applied to the total water used during each event, show an evaporative loss of 18.14 acre feet.

MND Inaccuracies

Using actual data to estimate water use allows a more accurate picture of water use. The MND dated 8-1-18 states that:

"the vines would be sprayed for a duration of two to three hours; and not all frost events require that the entire vineyard be sprayed (p. 37).

From the data presented above, it is clear that frost events in the Cuyama Valley can indeed be much longer than two to three hours. The average duration of a frost event (Table 2) as calculated by actual damaging temperatures is 5 hours. These estimates are very conservative, and it is very likely

that a grower facing these events would extend sprinkling one to two hours (Battany, personal communication, 2018).

The North Fork vineyard sits, on average, about 375 ft lower than the Cuyama CIMIS station, along the Cuyama River bottom. Since cold air drains to lower elevations by gravity, much the same as water (Evans 2000, McGourty, 2018; Nesbitt, 2018) the temperatures at the North Fork Vineyard will likely be colder than those recorded at CIMIS Cuyama and be subject to more frost events with longer durations. The projected calculations shown here would indeed represent the entire vineyard being sprayed for frost protection.

Conclusion

The Santa Barbara County Staff Report for the North Fork Ranch project dated 9/25/17 states:

"If the project- specific or cumulative evaporative losses exceed the groundwater use significance threshold of 31 acre feet per year, mitigation measures would be required to reduce losses to a level below the threshold (p.7)."

The proposed frost ponds would allow large-scale use of sprinkled groundwater, with cumulative evaporative losses from the frost reservoirs (26.28 AF) and the frost sprinklers (18.14 AF) totaling 44.42 AF. This is well above the County's 31 AF threshold and should certainly trigger environmental review. No methods of mitigating this loss is provided in the MND or the Staff Report, and a properly done EIR would identify tools and methods available to prevent this loss.

Respectfully submitted,

Katherine Anderson

References:

Agricultural Weather Services, 2018. AWIS Freeze/Frost Fact Sheets, Karl Harker, Agricultural Meteorologist, AWIS. http://www.awis.com/ag/fact_sheets.html

Battany, Mark, 2018. Viticulture Farm Advisor, San Luis Obispo and Santa Barbara Counties, University of California Cooperative Extension (UCCE). Personal communications.

California Department of Water Resources, California Irrigation Management Information System (CIMIS) <u>https://cimis.water.ca.gov</u>

Evans, Robert, 2000. The Art of Protecting Grapevines From Low Temperature Injury. Proceedings of the ASEV 50th Anniversary Meeting, Seattle, Washington June 19-23, 2000. Copyright © 2000 by the American Society for Enology and Viticulture. All rights reserved. <u>https://www.ars.usda.gov/</u> <u>ARSUserFiles/21563/Art%20of%20Protecting%20Grapevines%20from%20Low%20Temp.pdf</u>

Frost K R; Schwalen H C. 1955. Sprinkler evaporation losses. Agricultural Engineering, 36 (8), 526-528 [10]. Frost K R; Schwalen H C. 1960. Evapotranspiration ...

Jacobs, Jeremy P., 2018. <u>Western Water. Thirsty vineyard, Big Ag test landmark aquifer law.</u> E&E News, Greenwire, Monday, July 16, 2018. <u>https://www.eenews.net/stories/1060089215</u>

Jervis, Laurie, 2015. Another Balmy Winter Drives Some Early Vine Bud Break. Noozhawk, March 5, 2015. https://www.noozhawk.com/article/ laurie_jervis_another_balmy_winter_drives_some_early_vine_bud_break

McGourty, Glenn, 2018. Frost Protection Considerations. California State Water Resources Control Board, https://www.waterboards.ca.gov/waterrights/water...frost/.../2_glenn_mcgourty.pdf Winegrowing and Plant Science Advisor, University of California Cooperative Extension (UCCE), Mendocino and Lake Counties.

McGourty, Glenn, 2018. Winegrowing and Plant Science Advisor, University of California Cooperative Extension (UCCE), Mendocino and Lake Counties. Personal communications.

Nesbitt, Monte L, 2018. Frost and Freeze Prevention Strategies. Texas A&M Agrilife Extension, https://aggie-horticulture.tamu.edu/vitwine/files/2017/06/Frost-and-Freeze-Protection-Strategies.pdf

KATHERINE E. ANDERSON 300 GLEN ANNIE RD. GOLETA, CA 93117 (805) 689-8657 BLUEOAKSB@GMAIL.COM SUMMARY Outside-the-box problem solver, logical, science and research oriented. Mindful that details are everything in solving complex puzzles, and each of those details must mesh perfectly to draw valid conclusions. Wide experience and life skills background. Excellent proofreading skills for content and structure. EXPERIENCE 2017-current Law Office of Marc Chytilo, Environmental Law, Santa Barbara, CA Science Research ·Perform research and analysis of various case issues involving environmental science Livestock Consultant/Small Farmer/Island Seed and Feed, Goleta, CA 2003-current Consultant in Poultry and Small Livestock Management/Store Manager (part time) . Specialize in the health and nutrition of small livestock species, to include proper care, health, housing, and emergency veterinary/medical advice. Own and operate a small organic farm and ranch. 1998-2001 University of Arizona Museum, Tucson, AZ Inventory Curator, Human Remains Collection • Inventoried accessioned skeletonized human remains to assess age, sex, pathology, and number of individuals represented under each accession. Identified and developed research projects. • Specialized in the identification of difficult-to-identify, highly fragmented, and/or cremated remains. •Excavated skeletonized human remains at a number of prehistoric sites under the auspices of the University of Arizona ·Performed background research pertaining to the accession records of the collection 1995-1998 Federal Bureau of Investigation, Ventura and Santa Barbara Resident Agencies, CA **Confidential Clerk** •Transcribed recorded audio tapes, specializing in difficult audio, foreign languages and complex cases. Aided in teaching a class in archaeological forensic excavation at the Los Angeles Field Office Held top secret security clearance 1988-1995 Federal Bureau of Investigation, Santa Ana Resident Agency, Santa Ana, CA Data Analyst ·Implemented, built and maintained computer programs for input, storage, organization, and retrieval of information ·Worked closely with assigned agents in analysis and synthesis of information pertinent to their cases Data management, reports and depositions Held top secret security clearance EDUCATION 1999-2001 University of Arizona, Tucson, AZ Master's Program, Archaeology · Presented original research in peer-reviewed scientific conferences ·Master's Thesis: Implemented original experimentally based research project 1995-1998 University of California at Santa Barbara, Santa Barbara, CA **Bachelor of Science - Anthropology** ·Valedictorian, College of Letters and Science ·California State Presidential Award for Research ·Managed various field excavations, self-directed research projects, and summer archaeological field schools on Santa Cruz Island as well as the mainland, to include excavation of human remains Specialized in lithic reduction and prehistoric quarries, human remains and paleopathology

Appendix A

<u>California Irrigation Management Information System</u> (<u>CIMIS</u>) <u>Station in #88, Cuyama, CA</u>

March 2013 to May 2013 Raw Data

Evaporative Water Loss at the North Fork Ranch Vineyard, Cuyama, CA

North Fork Ranch Frost Ponds Appeal, Item # 3, 9/12/18 By Katherine Anderson 9/10/18

n ld	Stn Name	CIMIS Region	Date	Hour (PST) Ji	ETo (in)	qc	Precip (in) d	c Sol Rad (Ly/day) c	hourly-2 c Vap Pres (mBare)	qc i	Air Temp (F) qc	Rel Hum (%) qo	Dew Point (F) ac	Wind Speed (mph) qc	Wind Dir (0-360)	qc Soil Temp (F
	Cuyama	Central Coast Valleys	100000	1	50 1	0	0	0	5.4	4	38.5	68	29	5.3	113	54
100	Cuyama	Central Coast Valleys	3/1/2013			0	0	0	5.3		36.7	72	28.4	4,4	125	53
88	Cuyama Cuyama	Central Coast Valleys Central Coast Valleys	10000	300 400		0	0	0	5.1	-	35.5 34.7	73	27.8	4.9	113	52
	Cuyama	Central Coast Valleys		500	11	0	0	0		1	34.6	73	26.9	5.9	114	51
	Cuyama	Central Coast Valleys				0	0	0	4.6	1	33.6	74	26.1	4.7	104	
88		Central Coast Valleys		700		0	D	20	4.9	-	33.5	75	26.5	5.4	102	50
88	Cuyama	Central Coast Valleys	3/1/2013	800	30 1	0	0	299	5.3	2	37.5	68	28.1	6.2	99	45
88	Cuyama	Central Coast Valleys	3/1/2013	900	30 0.0	1	0	710	6.2	2	47.1	56	32.2	6.1	71	49
68	Cuyama	Central Coast Valleys	3/1/2013	1000	30 0.0	1	0	1091	6.5	5	55.8	43	33.4	4.7	85	49
	Cuyama	Central Coast Valleys	3/1/2013	1100	50 0.0	2	0	1391	6.0	B	61.6	35	34	3,4	141	49
_	Cuyama	Central Coast Valleys		1200	1		0	1565	6.5	1	65,4	30	33.6	3.6	134	50
88		Central Coast Valleys	3/1/2013		50 0.03	1	0	1621	6.4	· · · · ·	68.5	27	33	4	166	51
88		Central Coast Valleys	3/1/2013		0.0		0	1526	6.6	4	70.8	26	34.5	5.4	339	53
88	Cuyama Cuyama	Central Coast Valleys Central Coast Valleys	3/1/2013		0.0	-	0	1291 949	7.2	1.1	71.2	28	36.2	6.6	75	56
	Cuyama		3/1/2013		0.0 0.0		0	544	7.5		67.5	33	37.1	6.8	97	57
68	Cuyama	Central Coast Valleys	3/1/2013	1800 6	1	0	0	137	7.4		62.6	38	36.8	6.7	129	58
	Cuyama	Central Coast Valleys	3/1/2013			0	0	1	7.4	1	57	48	36.6	5.4	130	59
	Cuyama	Central Coast Valleys	3/1/2013	2000 6		0	0	0	7.4		53.5	53	36.7	5.5	163	59
88	Cuyama	Central Coast Valleys	3/1/2013	2100	0 0	0	0	0	6.9		48.8	59	35	5	192	
88	Cuyama	Central Coast Valleys	3/1/2013	2200 6	0 0	0	0	0	6.6	3	44.4	67	34	3.4	118	58
88	Cuyama	Central Coast Valleys	3/1/2013	2300 0	0 0	0	0	0	6.6	5	42.1	71	33.5	4.1	120	
88	Cuyama	Central Coast Valleys	3/1/2013	2400 6	0 0	P	0	0	6.3	3	40.1	75	32.7	4.4	99	57
88	Cuyama	Central Coast Valleys	3/2/2013	100 6	1 0		0	0	6	3	38.6	76	31.5	4.9	108	56
	Cuyama	Central Coast Valleys	1.	200 6			0	0	5.9	1	37.8	77	31.1	4.6	110	1
	Cuyama	Central Coast Valleys	3/2/2013	300 6			0	0	5.7		37.3	76	30.4	6	118	55
88		Central Coast Valleys	3/2/2013	400 6			0	0	5.5	-	35.7	77	29.3	3	126	54
	Cuyama		3/2/2013	500 6			0	0	5.4	1	35.9	76	29.1	4.7	123	53
0.	Cuyama	Central Coast Valleys		600 6			0	0	5.2	-	35.1	75	27.9	2.6	172	53
	Cuyama Cuyama	Central Coast Valleys Central Coast Valleys	3/2/2013	700 € 800 €	-		0	35	5.9		35.1	72	31.1	2.6	130	52
	Cuyama	Central Coast Valleys		900 6	1		0	695	5.6	1.1	54.6	38	29.8	2.7	103	51
31	Cuyama		3/2/2013	1000 6	-		0	1142	5.7	1	63.2	29	30.1	2.2	302	51
	Cuyama	Central Coast Valleys	1.	1100 6	3		0	1289	5.6	-	69.5	23	29.7	3.6	314	51
	Cuyama	Central Coast Valleys		1200 €			0	1173	4.6	1	74.6	16	26	3	309	52
8	1024-111	Central Coast Valleys		1300 6		2	0	963	4	1	78.1	13	21.6	9.4	226	53
8	Cuyama	Central Coast Valleys	3/2/2013	1400 6	1 0.03	2	0	766	3.6	3	75.8	12	20.5	10.2	217	55
8	Cuyama	Central Coast Valleys	3/2/2013	1500 6	1 0.02	2	0	666	3.7	-	75	13	20.1	11,4	213	56
88	Cuyama	Central Coast Valleys	3/2/2013	1600 6	1 0.01		0	648	3.9		74.6	13	21.1	7.8	219	57
88	Cuyama	Central Coast Valleys	3/2/2013	1700 6	1 0.01		0	586	3.8		74.5	13	20.5	8.5	236	57
88	Cuyama	Central Coast Valleys	3/2/2013	1800 6	1 0	2	0	79	3.4		68.9	14	17.7	7.9	230	58
88	Cuyama	Central Coast Valleys	3/2/2013	1900 6	1 0	2	0	0	3.9		64.1	19	20,9	7.7	222	58
2.1	Cuyama	Central Coast Valleys		2000 6		Y	0	0	4.3	1	62.9 Y	22 Y	23.2 Y	5.8	226	58
20	Cuyama	Central Coast Valleys		2100 6		Y	0	0	5.2	-	62 Y	27 Y	28.1 Y	4.9	250	58
21	Cuyama	Central Coast Valleys		2200 6		Y	0	0	5.4	1	61,3 Y	29 Y	28.7 Y	6,3	254	58
21	Cuyama	and a second a second	3/2/2013	2300 6		Y	0	0	5.1	_	59.3 Y	30 Y	27.6 Y 26 Y	3.7	255	58
- 1	Cuyama Cuyama		3/2/2013	2400 6		Y	0	0	4.8	1 1	57.3 Y 54.9	30 Y	20 7	3.8	127	57
64	Cuyama	Central Coast Valleys		200 6	2		0	0	4.7	1	54,1	33	25.7	4	245	57
- 1	Cuyama	Central Coast Valleys		300 6		-	0	0	4.9		52,9	36	26.5	2	271	57
	Cuyama		3/3/2013	400 6	2 0		0	0	6	-	50.2	49	31.6	3.8	162	56
18	Cuyama	Central Coast Valleys	3/3/2013	500 6	2 0		0	0	6	-	49.9	49	31.7	3.9	135	56
4	Cuyama	Central Coast Valleys		600 6		1	0	0	6.1	1.	48.4	53	32	3.3	138	56
8	Cuyama	Central Coast Valleys	3/3/2013	700 6	2 0		0	5	5.9		49.5	49	31.1	3.4	140	55
8	Cuyama	Central Coast Valleys	3/3/2013	800 6	2 0		0	148	6.5		51.1	51	33.4	2.9	98	55
8	Cuyama	Central Coast Valleys	3/3/2013	900 6	2 0		0	290	6.3		58	41	32.9	3.5	85	55
21	Cuyama	Central Coast Valleys		1000 6	1		0	450	5.5	1	59,2	32	29.6	3.6	286	
1	Cuyama	Central Coast Valleys		1100 6	1.000		0	971	5.8	-	60.7	32	30.9	5.2	289	
4	Cuyama		3/3/2013	1200 6	-		0	983	6.2		63	31	32.2	4	314	55
4	Cuyama	Central Coast Valleys	22000	1300 6	dimension.	1	0	1212	6.7		65.3	32	34.3	3.6	307	
4	Cuyama	Central Coast Valleys Central Coast Valleys		1400 6		1	0	851	7.6	-	64.9 63.8	36	37.5	6.3	291	
1	Cuyama	Central Coast Valleys	and search and	1500 6		-	0	541 819	7.7	1	64.3	40	39.5	8.1	292	
1	Cuyama		3/3/2013	1700 6	1	-	0	401	8.4		62.1	44	39.9	9,1	287	55
1	Cuyama		3/3/2013	1800 6	1		0	118	8.4	- D	60.3	47	40.1	8.4	316	60
Į,	Cuyama		3/3/2013	1900 6	1		0	0	8.9	1.00	57.5	55	41.5	5.2	340	60
J.	Cuyama	Central Coast Valleys		2000 6			0	0	8.4	1.1	55.1	57	40.1	4.1	281	60
1	Cuyama	Central Coast Valleys	3/3/2013	2100 6	2 0		0	0	8.2		54.1	57	39.3	4.6	282	60
ĺ	Cuyama	Central Coast Valleys	3/3/2013	2200 6	2 0		0	0	8.2		52.8	60	39.3	4.1	280	
Í	Cuyama	Central Coast Valleys	3/3/2013	2300 6:	2 0		0	0	8.2		50.8	64	39.3	3.2	281	59
1	Cuyama		3/3/2013	2400 6	2 0		0	0	8.1		50.4	65	39.1	2.7	285	59
з.	Cuyama	Central Coast Valleys	3/4/2013	100 65	the second se		0	C	8.1		49.4	67	39	2,7	280	58
4	Cuyama		3/4/2013	200 6		-	0	0	7.3		45.4	71	36.6	2.3	229	58
а.	Cuyama		3/4/2013	300 6	-	-	0	0	6.9		41.1	78	34.9	4	167	57
1	Cuyama		3/4/2013	400 63			0	0	6.5		39.5	80	33.7	2.7	194	57
1	Cuyama	Contraction of the second s	3/4/2013	500 63		1	0	0	6.4	· .	38.3	82	33.3	3	133	56
1	Cuyama	the second se	3/4/2013	600 6		-	0	0	6.4		37.4	84	33.1	2.1	129	56
ц.		State Street Street	3/4/2013	700 63			0	28	6,1		35.5	87	32	2.6	103	54
4			3/4/2013	800 63			0	316	8.1		43.9	70	41.1	5.2	118	54
1		Central Coast Valleys Central Coast Valleys	3/4/2013	900 63			0	1112	9.1		55.1	62	41.1	5.2	78	54
1		Central Coast Valleys	A	1000 65	1		0	1112	9.1		58.6	55	42.2	3.5	312	54

88 Cuyama	Central Coast Valleys	3/4/2013	1200	63	0.02	0	1569	8.7	61.7	46	40.8	4,3	110	
BB Cuyama	Central Coast Valleys	and the second second	1300		0.02	0	1627	8.6	62.7	44	40.7	5.6	333	56
BB Cuyama	Central Coast Valleys		1400		0.02	0	1507	8.5	63.6	42	40.2	5.6	335	57
B8 Cuyama	Central Coast Valleys		1500		0.02	0	1311		64.1		1000	6.6	37	59
		10000					and the second s	8.6		42	40.5			
38 Cuyama	Central Coast Valleys		1600	63	0.01	0	980	8.6	63.4	43	40.7	7.6	62	60
88 Cuyama	Central Coast Valleys	3/4/2013	1700	63	0.01	0	586	8.7	62.1	46	40.8	7.8	84	61
88 Cuyama	Central Coast Valleys	3/4/2013	1800	63	0	0	162	9	58.6	54	41.8	7.5	89	62
88 Cuyama	Central Coast Valleys	3/4/2013	1900	63	0	0	1	8.6	53.8	61	40.6	5.1	123	6
Se Cuyama	Central Coast Valleys		2000		0	0	0	8	50.1	64	38.6	4.9	187	6
	Central Coast Valleys	and the second second				the second se			and the second s	151	27.62	Contraction of the state of the	and the second sec	
8 Cuyama			2100		0	0	0	7.6	47.5	68	37.5	3.7	169	6
8 Cuyama	Central Coast Valleys	3/4/2013	2200	63	O	0	٥	7.2	44.2	73	38.2	2.7	124	6
8 Cuyama	Central Coast Valleys	3/4/2013	2300	63	0	0	0	7	41.7	78	35.4	2.7	233	6
8 Cuyama	Central Coast Valleys	3/4/2013	2400	63	0	0	0	6.8	39.7	82	34.8	2.2	181	
8 Cuyama	Central Coast Valleys											2.6	137	5
	the second se	the second second second	100	and the second second	0	0	0	6.6	38.1	85	33.9	and the second sec		
8 Cuyama	Central Coast Valleys	3/5/2013	200	64	0	0	D	6.5	37.6	85	33.6	2,7	179	5
8 Cuyama	Central Coast Valleys	3/5/2013	300	64	0	0	0	8.2	35.8	87	32.2	2.6	140	5
8 Cuyama	Central Coast Valleys	3/5/2013	400	64	0	0	0	6.1	35.1	88	31.9	2.4	180	5
8 Cuyama	Central Coast Valleys	3/5/2013	500	64	0	0	D	6	34.2	89	31.4	2.4	171	5
B Cuyama	Central Coast Valleys	14 - 16 - 18 - 18 - 18 - 18 - 18 - 18 - 18	600		0	0	D	5.8	33.3	90	30.9	2	151	5
		-		the second second		and the second sec								
8 Cuyama	Central Coast Valleys	3/5/2013	700	(0	0	33	5.8	33	91	30.7	1.9	224	5
8 Cuyama	Central Coast Valleys	3/5/2013	800	64	0	0	293	7	37.7	91	35.4	3.3	270	
8 Cuyama	Central Coast Valleys	3/5/2013	900	64	0	0	387	8.2	41.6	92	39.3	2.7	314	5
B Cuyama	Central Coast Valleys	3/5/2013	1000	64	0.01	0	1069	9.8	46.5	91	44	2.9	47	5
Cuyama	Central Coast Valleys	Section 2.	1100		0.01	0.03 Y	1441	and the second se	55.4	66	44.4	3	42	5
		harmonie						10		1		-		
Cuyama	Central Coast Valleys	3/5/2013	1200		0.02	D	1619	9.3	60.4	52	42.7	7.6	291	
Cuyama	Central Coast Valleys	3/5/2013	1300	64	0.02	0	1664	9.3	60.4	52	42.6	10.2	285	5
Cuyama	Central Coast Valleys	3/5/2013	1400	64	0.02	0	1567	8.6	63.3	44	40.8	10.2	290	5
Cuyama	Central Coast Valleys		1500		0.02	0	1347	8.7	63.5	43	40.8	8.7	289	5
Cuyama	Central Coast Valleys				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				100.001				294	5
		1.000	1600		0.01	0	1014	8.5	62.8	44	40.5	8,1		
Cuyama	Central Coast Valleys	3/5/2013	1700		0.01	0	611	8.5	61.4	45	40.2	7.1	288	5
Cuyama	Central Coast Valleys	3/5/2013	1800	64	D	0	170	9.1	54.5	63	42	8,1	277	6
Cuyama	Central Coast Valleys	3/5/2013	1900	64	0	0	1	8.7	49.2	72	40.8	6.9	267	6
Cuyama	Central Coast Valleys		2000	64	0	0	0	8.4	47	77	40.1	6.8	275	6
	Central Coast Valleys	1.1.2.1.2.1.2							and the second sec	and the second s		and the second sec	274	6
		1000	2100	64	0	0	D	8.2	43.8	84	39.3	8.5		
Cuyama	Central Coast Valleys	3/5/2013	2200	64	0	0	0	8	41.9	89	38.7	7.6	278	5
Cuyama	Central Coast Valleys	3/5/2013	2300	64	0	0	D	7.9	41.2	90	38.3	5.6	261	5
Cuyama	Central Coast Valleys	3/5/2013	2400	64	0	0	0	7.3	39.5	88	36.3	3.4	274	5
Cuyama	Central Coast Valleys	3/8/2013	100	65	0	0	0	6.4	35.9	90	33.3	2.5	111	5
														_
Cuyama	Central Coast Valleys	3/6/2013	200		0	0	0	6.3	35	92	32.8	а	240	5
Cuyama	Central Coast Valleys	3/6/2013	300	65	0	0	0	6.6	36.2	92	34	3.3	102	5
Cuyama	Central Coast Valleya	3/6/2013	400	65	0	0	0	7,3	39.3	90	36.6	5.3	140	5
Cuyama	Central Coast Valleys	3/6/2013	500	65	0	0	0	7.3	40.1	86	36.3	2.9	297	5
Cuyama	Central Coast Valleys	3/6/2013	600	65	0	0	0	7.5	40.6	88	37.3	2.5	208	5
				-										
Cuyama	Central Coast Valleys	3/6/2013	700	65	0	0.01	27	7.6	40.8	87	37.4	3	92	53
Cuyama	Central Coast Valleys	3/6/2013	800	65	0	0	178	8.2	43.4	86	39.5	3.7	91	5
Cuyama	Central Coast Valleys	3/6/2013	900	65	0	0	528	9	47.9	80	41.9	3,8	61	5
Cuyama	Central Coast Valleys	3/6/2013	1000	65	0.01	0.01 Y	1122	9.7	52.1	73	43.8	6.1	236	5
	Central Coast Valleys	3/6/2013			ment								299	5
and a state of the	Contrat Coast Valleys	in merelie	1100		0.01	0	1004	10	52.5	74	44.5	5.2		
Cuyama	Central Coast Valleys	3/6/2013	1200	65	0.01	0	964	10.3	52.3	77	45.2	4,3	297	54
Cuyama	Central Coast Valleys	3/6/2013	1300	65	0.01	0	883	10	52	75	44.5	6.2	299	5
Cuyama	Central Coast Valleys	3/6/2013	1400	65	0.01	0	1040	9.7	52.8	71	43.8	5.9	298	5
Cuyama	Central Coast Valleys	3/6/2013	1500	65	0.01	0	971	9.5	53.3	68	43.1	6.8	291	5
	Special Construction								Carlos A					
Cuyama	Central Coast Valleys	3/6/2013	1600		0.01	0	647	9,4	52.8	69	43	6.8	286	56
Cuyama	Central Coast Valleys	3/6/2013	1700	65	D	0	284	9.2	51.8	70	42.4	7.1	268	5
Cuyama	Central Coast Valleys	3/6/2013	1800	65	0	0	126	9.2	49.1	77	42.3	6.7	278	5
Cuyama	Central Coast Valleys	3/6/2013	1900	65	0	0	1	8.8	46.1	83	41.1	6.8	278	5
Cuyama	Central Coast Valleys	3/6/2013	- Andrewski (65	0	0	0	8.6	45.5	83	40.6	5.9	259	5
			in local to								15.1			
Cuyama	Central Coast Valleys	3/6/2013		65	0	0	0	8.9	45.8	85	41.4	7	265	5
Cuyama	Central Coast Valleys	3/6/2013	2200	65	0	0	0	8.8	45.5	85	41.1	5.2	274	54
Cuyama	Central Coast Valleys	3/6/2013	2300	65	0	0	0	8.7	44.7	86	40.8	4.3	270	54
Cuyama	Central Coast Valleys	3/6/2013	2400	65	0	0	0	8.5	43.8	88	40.4	3.9	273	
Cuyama	Central Coast Valleys	3/7/2013		66	0	0	Ö	8.6	43.5	90	40.7	4.6	264	55
		3/7/2013		66	0	0	0	8.5	43	90	40.4	3.6	273	55
Cuyama	Central Coast Valleys	1000000												
Cuyama	Central Coast Valleys	3/7/2013		66	0	0	0	8.4	42.6	90	40)	1.7	268	54
Cuyama	Central Coast Valleys	3/7/2013	400	66	0	0	0	8.5	42.9	90	40.3	2.7	251	54
Cuyama	Central Coast Valleys	3/7/2013	500	66	0	0	0	8.5	42.6	91	40.3	2.1	274	50
Cuyama	Central Coast Valleys	3/7/2013	600	66	0	0	0	8.5	42.5	92	40.4	1.8	310	5
Cuyama	Central Coast Valleys	3/7/2013		66	0	0	20	8.5	42.2	93	40.2	2.3	22	5
Cuyama	Central Coast Valleys	3/7/2013		66		0		and the second sec	and the state of the second second	92	40.9	1.6	234	5
					0		171	8.7	43		1572			
Cuyama	Central Coast Valleys	3/7/2013	900	66	0	0	508	8.9	44.7	89	41.6	3.2	49	_
Cuyama	Central Coast Valleys	3/7/2013	1000	66	0	0	584	8.3	46.9	76	39.7	3.1	64	5
Cuyama	Central Coast Valleys	3/7/2013	1100	68 0	.01	0	642	7.8	49	66	38.1	3.1	327	-
Cuyama	Central Coast Valleys				.01	0	1275	8	51.8	61	38.9	4.4	308	53
1.1.2.2.2.2.	Central Coast Valleys			1		the second se			SOCI	58		4.4	308	53
Cuyama					1.01	0	869	8	52.8	- C) - L	38.7			
Cuyama	Central Coast Valleys	3/7/2013	1400	66 0	.02	0	1505	6.3	58	41	32.6	8.8	191	54
Cuyama	Central Coast Valleys	3/7/2013	1500	66 0	.01	0	989	5.5	55.4	36	29.2	11.1	217	55
Cuyama	Central Coast Valleys	3/7/2013	1600	66 0	.01	0	370	5.3	53.6	38	28.5	11.5	211	50
Cuyama	Central Coast Valleys	2001.00						the second se	51.5	38	26.9	10.4	217	_
	and the second se	to a serie of the		66	0	D	143	5						
	Central Coast Valleys			68	0	0	45	5.3	50.2	43	28.3	7.6	213	57
Cuyama	Central Coast Valleys	3/7/2013	1900	66	0	0	1	5.9	47.5	53	31.3	7.7	197	57
Cuyama	Central Coast Valleys	3/7/2013	2000	66	0	0	0	5.9	46	56	31.3	6	164	57
Cuyama		3/7/2013		66	0	0	0	6	45.1	59	31.6	8.2	162	56
Cuyama	Central Coast Valleys	3/1/2013		66	0	0	0	6.5	44.5	65	33.5	7	144	56
Part and an and a			2300	0.0	0									
Cuyama	Central Coast Valleys	3/1/2013	2300	66	U	0	0	6.7	45	66	34.4	9,2	129	

8	8 Cuyama	Central Coast Valleys	3/8/2013	100	67	0	0.05	0	7	38.2	89	35.4	8.2	283	57.5
8	8 Cuyama	Central Coast Valleys	3/8/2013	200	67	0	0.03	D	6.8	36.6	92	34.6	5.4	284	56.3
8	8 Cuyama	Central Coast Valleys	3/8/2013	300	67	0	0.01	0	6.9	37	93	35.1	2.6	237	56.1
8	8 Cuyama	Central Coast Valleys	3/8/2013	400	67	D	0	0	7	37.3	93	35.5	3.6	204	55.7
8	the second se	Central Coast Valleys	3/8/2013	500	67	0	0	D	7.1	37.6	93	35.7	3.2	197	55.7
8	8 Cuyama	Central Coast Valleys	3/8/2013	600	67	0	0.01	0	7.1	37.8	93	35.9	4.1	354	55.1
8	1000	Central Coast Valleys		700	12.5	0	0.02	6	7.1	37.9	92	35.9	2	291	54.3
8		Central Coast Valleys	Service of the	800	1.2.2	0	0.01	59	7.1	37.8	92	35.8	3.3	314	53.4
-		Central Coast Valleys	1.	900	-	0	0.01	291	7.1	37.8	92	35.8	4.2	221	53
8			A		1.1					and a second		36.8	3.6	177	52.4
8		Central Coast Valleys	1.22	1000	1.00	0	0	602	7.4	39.3	91	525		7	
8	1	Central Coast Valleys	Contraction of the	1100		0	0	594	7.6	41	87	37.5	2,2		52.5
8	B Cuyama	Central Coast Valleys	3/8/2013	1200	67	0.01	0	771	7.8	43.1	80	37.4	2.4	325	53.7
8	B Cuyama	Central Coast Valleys	3/8/2013	1300	67	0.01	0	1238	7.9	45,9	74	38.3	4	333	52.6
8	6 Cuyama	Central Coast Valleys	3/8/2013	1400	67	0.01	0.01	781	8,2	46.2	77	39.4	4.6	316	52.8
8	B Cuyama	Central Coast Valleys	3/8/2013	1500	67	0	0.01	522	8.4	46	80	40.1	6.2	294	53.4
B	B Cuyama	Central Coast Valleys	3/8/2013	1600	67	0	0	347	8.5	46.9	77	40.2	5.7	298	54.1
8	2	Central Coast Valleys	1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	1700	1.000	0	0	86	8.3	46.3	78	39.7	6.7	295	54.4
8	1	Central Coast Valleys		1800	1.11	0	0	19	8.1	45.2	79	39.2	6.9	293	54.6
1.1	1	Central Coast Valleys	the second second	1900	1.2	0	0	1	7.8	44.5	79	38.2	7	290	54.7
8				1	1.1		and the second se			-	80	38.3	5.3	298	54.5
8		Central Coast Valleys	1	2000	0.01	0	0	0	7.8	44		1	101	299	
8	1	Central Coast Valleys	A COLUMN TO A COLUMN	2100	1.154	0	0	0	7.9	43.3	83	38.5	5.4		54,1
B	B Cuyama	Central Coast Valleys	3/8/2013	2200	67	0	0	0	7,8	42.4	84	38	5,7	287	53.8
8	8 Cuyama	Central Coast Valleys	3/8/2013	2300	67	0	0	0	7,7	41.4	87	37.8	5.5	267	53.4
B	B Cuyama	Central Coast Valleys	3/8/2013	2400	67	0	0	0	7.4	39.6	90	36.9	5.2	263	53
8	8 Cuyama	Central Coast Valleys	3/9/2013	100	68	0	0	0	7.3	38.7	91	38.5	4.1	264	52.7
8	and the second	Central Coast Valleys	and the second second	200	68	0	0	0	7.3	38.5	92	36.4	1.2	325	52.3
8	1.02	Central Coast Valleys		300		0	0	0	7	37.4	92	35.3	1.5	247	51.8
8		Central Coast Valleys	-	400	1.11	0	0	0	6,9	37.2	92	35	3.5	277	51
										-	91	34.7	2.1	302	50.5
B		Central Coast Valleys		500		0	0	0	5.8	37.2		Contra -			
8		Central Coast Valleys		600		٥	0	0	6.8	37.8	88	34.6	4.6	285	50.1
8	8 Cuyama	Central Coast Valleys	3/9/2013	700	1.00	0	0	13	6.7	38	86	34.2	4.5	288	49.7
B	B Cuyama	Central Coast Valleys	3/9/2013	800	68	0	0	81	6.7	38.4	85	34,4	3.6	284	49.4
B	B Cuyama	Central Coast Valleys	3/9/2013	900	68	0	0	267	6.9	40.1	82	35	3.2	302	49.1
8	Cuyama	Central Coast Valleys	3/9/2013	1000	68	0.01	0	665	6.9	41.8	76	34.9	3.7	317	48.9
8	Cuyama	Central Coast Valleys	3/9/2013	1100	68	0.01	0	881	7.1	43.5	74	35.9	4.3	119	49
B	1.255	Central Coast Valleys	-	1200		0	0	545	7.3	44,2	74	38.5	4.6	126	49.3
B	5		1000				0	458	7.4	45.2	73	36.9	4.3	119	49.9
	100 C 100	Central Coast Valleys	and the second sec	1300	100	0				the house			5.9	110	50.3
8	1	Central Coast Valleys		1400	1.1.1	0	0	439	7.7	46	73	37.8			
B	Cuyama	Central Coast Valleys	3/9/2013	1500	68	0.01	0	686	8	47.5	71	38.7	6.8	77	50.6
8	B Cuyama	Central Coast Valleys	3/9/2013	1600	68	0.01	0	522	7.6	48.3	66	37.5	6.2	8	51
8	B Cuyama	Central Coast Valleys	3/9/2013	1700	68	0	0	479	7.3	48.6	62	36.4	6.9	0	51.3
B	Cuyama	Central Coast Valleys	3/9/2013	1800	68	0	0	173	7.4	47.5	66	36.9	5.2	63	51.7
8	Cuyama	Central Coast Valleys	3/9/2013	1900	68	0	0	3	7.4	44.2	75	38.7	4.1	141	51.9
8		Central Coast Valleys	3/9/2013	2000		0	0	0	7.2	41.2	81	35.9	4	204	51.9
8		Central Coast Valleys		2100	1000	0	0	0	6.7	38.7	84	34.3	4.1	103	51.7
17					-			X =		36.8	88	33.5	5.9	120	51.4
8		Central Coast Valleys	Contraction of the second	2200	· · ·	0	0	0	6.5					117	50.9
8	1	Central Coast Valleys	the state of the s	2300	1.11	0	0	0	6.2	35,5	89	32.4	5.8		
8	B Cuyama	Central Coast Valleys	3/9/2013	2400	68	0	0	0	5.9	33.9	90	31.3	5.5	103	50,4
8	B Cuyama	Central Coast Valleys	3/10/2013	100	69	0	0	0	5.9	33.8	90	31.3	6.1	98	49.8
B	B Cuyama	Central Coast Valleya	3/10/2013	200	69	0	0	0	5.9	33.6	90	31	5.7	116	49.2
8	Cuyama	Central Coast Valleys	3/10/2013	300	69	0	0	0	5.8	33.5	90	30.9	6.1	115	48.7
8	Cuyama	Central Coast Valleys	3/10/2013	400	89	0	0	0	5.7	33.1	89	30.3	5.6	109	48.1
B	Contraction of the	Central Coast Valleys	A CONTRACTOR IN	500	1000	0	0	0	5.5	31.9	90	29.5	5.3	122	47.6
8		and the second s	1.0.2	600	-	0	0	0	5.8	33.2	90	30.5	6.1	106	47.1
		Central Coast Valleys	and the second sec	200	-	1.1.1				and the second sec			6.6	109	46.6
8	Cuyama	Central Coast Valleys	3/10/2013	700	69	0	0	0	5.7	33.1	89	30.3		103	40.0
		la se				_		1013	rages	33.3	90	30.6	6.0		-
8	Cuyama	Central Coast Valleys	the second second	800		0	0	415	6,4	37.2	85	33.2	6.1	96	46.1
8	Cuyama	Central Coast Valleys	3/10/2013	900	69	0.01	0	843	7.5	44.9	74	37.2	6.9	99	45.8
8	Cuyama	Central Coast Valleys	3/10/2013	1000	69	0.01	0	1229	7.8	61.6	60	38.2	4.7	112	45.8
B	Cuyama	Central Coast Valleys	3/10/2013	1100	69	0.02	0	1528	7.3	57.4	45	38.5	3.2	110	48.4
B	Cuyama	Central Coast Valleys	3/10/2013	1200	69	0.02	0	1695	6.5	61.6	35	33.4	3.2	63	47.5
B	10 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Central Coast Valleys	and the second sec	1300		0.02	0	1726	7.3	63.5	36	36.3	4.8	341	49.3
8		Central Coast Valleys		1400		0.02	0	1631	8	64.1	39	38.7	4.6	69	51.3
8		Central Coast Valleys		1500		0.02	0	1406	7.9	65.5	37	38.6	4.8	344	53.2
B	1	and the second s	1	1600		0.01	0	1055	8.5	65,1	40	40.2	7	354	55.1
		Central Coast Valleys							and the second s		45	40.9	9.4	341	56.7
8		Central Coast Valleys		1700		0.01	0	653	8.7	62.6		() Sector			57.8
B		Central Coast Valleys	3/10/2013	1800	100	0	0	217	8.9	59	52	41.4	5	15	
BA	10 10 10 10 10 10 10 10 10 10 10 10 10 1	the second program in the second	3/10/2013	1900	69	٥	0	3	8.6	53.2	62	40.5	5	239	58.3
B	Cuyama	Central Coast Valleys	3/10/2013	2000	69	0	0	0	8.2	49.7	68	39.5	5.1	192	58.4
64	Cuyama	Central Coast Valleys	3/10/2013	2100	69	0	0	0	7.9	45.9	75	38.3	4.6	183	58.1
B		Central Coast Valleys	3/10/2013	2200	69	0	0	0	7.5	43.6	78	37.2	2,8	132	57.5
Bi	in succession	Central Coast Valleys	3/10/2013	2300	69	0	0	0	6.8	39.6	82	34.5	4.4	117	56.9
8	an and	Central Coast Valleys	3/10/2013	2400		0	D	0	6.5	37.7	85	33.5	4.9	130	56.2
66		Central Coast Valleys	3/11/2013	100		0	0	0	6.1	36.5	83	31.8	6.7	109	55.4
					-		0		5.6	34.6	83	30	5.2	119	54.6
B		Central Coast Valleys	3/11/2013	200	1.1.1	0		0		and the second s		the second second second	6.4	123	53.7
B		Central Coast Valleys		300		0	0	0	5.1	32.8	82	27.6			
84		Central Coast Valleys	3/11/2013	400	100	0	0	0	4.8	31.2	81	26.2	5.5	111	52.9
BE	Cuyama	Central Coast Valleys	3/11/2013	500	70	0	0	0	4.9	31.9	80	26.5	4.8	97	52.1
	Cuyama	Central Coast Valleys	3/11/2013	600	70	0	0	0	4,6	30.6	80	25.2	5.4	115	51.2
88		Central Coast Valleys	3/11/2013	700	70	0	0	56	4.8	31.2	80	25.9	3.5	161	50,6
88			1 and		-1	1.01			ragea	32.0	81	26,9	5.0		
88	Cuyama														and the second se
81 81	Cuyama		3/11/2012	800	70	0	0		5.6	37.5	74	29.9	4.4	72	49.7
84 84 84	Cuyama Cuyama	Central Coast Valleys		800	1.1.1	0	0	427	5.6	37.5	74				
81 81 81 81	Cuyama Cuyama Cuyama	Central Coast Valleys Central Coast Valleys	3/11/2013	900	70	0.01	0	427 852	6.2	47.7	55	32.3	6,2	146	49.2
85 81 81 81 81 81	Cuyama Cuyama Cuyama	Central Coast Valleys	3/11/2013 3/11/2013		70 70			427		JOI TO					

1 3	88 0	Cuyama	Central Coast Valleys	3/11/2013	1200	70	0.02	0	1697	6	53.4	30	31.5	3.9	52	50.6
1	88 0	Cuyama	Central Coast Valleys	3/11/2013	1300	70	0.02	٥	1728	5.8	67.3	25	30.6	3.3	231	52.2
1	88 C	Cuyama	Central Coast Valleys	3/11/2013	1400	70	0.02	0	1619	7.1	69.3	29	35.6	5,4	357	54
- 1	88 0	Cuyama	Central Coast Valleys	3/11/2013	1500	70	0.02	0	1413	7.7	70.2	30	37.8	6.5	360	55.9
1 1	88 0	Cuyama	Central Coast Valleys	3/11/2013	1600	70	0.01	0	1065	7,7	69.9	31	37.7	8.3	347	67.7
1	88 C	Cuyama	Central Coast Valleys	3/11/2013	1700	70	0.01	0	650	7.8	66.5	35	38.1	11.9	344	59.2
1	100	Cuyama	Central Coast Valleys		1800	70	0	0	213	7.9	62	42	38.4	6.5	94	60.3
-	-	Cuyama	Central Coast Valleys		1900	70	0	0	2	7.7	55.7	51	37.9	5.5	148	60.8
-	-	Cuyama	Central Coast Valleys	in the second	2000	70	0	0	0	8	52.4	80	38.8	6.7	161	60.8
-				Contraction (Charles Inc.						184	60.4
-	22	Cuyama	Entrancia Cate//EL	3/11/2013	2100	70	0	0	0	7.9	49	66	38.3	5.1		
	88 C	Cuyama	Central Coast Valleys		2200	70	0	0	0	7.5	45.8	72	37.3	4,3	157	59.9
1	88 C	Cuyama	Central Coast Valleys	3/11/2013	2300	70	0	0	0	7.3	42.7	78	36.3	3.9	137	59.2
1	88 C	Cuyama	Central Coast Valleys	3/11/2013	2400	70	0	0	0	7	40.8	81	35.4	4.2	109	58.5
1	88 C	Suyama	Central Coast Valleys	3/12/2013	100	71	0	0	0	6.7	39.6	81	34.2	5	114	57.8
-	88 0	Cuyama	Central Coast Valleys	3/12/2013	200	71	0	0	0	6.5	38.9	80	33.4	5.6	122	57
1.00	-	Cuyama	Central Coast Valleys		300		0	0	0	6.1	37.3	81	32.1	4	122	58.2
1	100		Central Coast Valleys	Contraction of the				0		6	38.6	82	31.5	5.2	118	55.4
1	-	Cuyama		C. 21. 3.01	400		0		0		- The					
-	88 C	Suyama	Central Coast Valleys		500		0	0	0	5.9	36.8	80	31.1	5.1	115	54.7
12	88 C	Suyama	Central Coast Valleys	3/12/2013	600	71	0	0	0	5.6	35.6	80	30	4.2	112	54
1	88 C	Cuyama	Central Coast Valleys	3/12/2013	700	71	0	0	61	5.6	35.4	80	30	3.8	91	53.2
1	88 C	Cuyama	Central Coast Valleys	3/12/2013	800	71	0	0	424	6.6	42.5	72	34	4.5	84	52.6
1	88 C	Cuyama	Central Coast Valleys	3/12/2013	900	71	0.01	0	856	7.9	52.4	59	38.4	4.8	52	52.1
-	88 C	Suyama	Central Coast Valleys	3/12/2013	1000	71	0.01	0	1227	7.9	61.6	42	38.4	4,9	64	52
-	1	Cuyama	Central Coast Valleys	and a second second	1100		0.02	0	1520	6.7	67	30	34.4	4.6	91	52.5
1-6	11			3/12/2013	1200		0.02	0	1693	7.6	71	29	37.5	4	346	53.6
1.00	18	Cuyama				-						30	39.3	6	342	55.2
	1	Cuyama		3/12/2013	1300	Sec.	0.02	0	1724	8.2	72.7				-	
1.1	88 C	Cuyama	Central Coast Valleys	3/12/2013	1400	71	0.02	0	1625	8.2	74.2	28	39.3	7.1	337	57.1
1 9	88 C	Cuyama	Central Coast Valleys	3/12/2013	1500	71	0.02	0	1390	8.5	74,5	29	40.2	7.4	344	59
1	88 C	Suyama	Central Coast Valleys	3/12/2013	1600	71	0.01	0	1048	9.2	73.7	32	42.3	5.3	58	60.8
1	88 C	Cuyama	Central Coast Valleys	3/12/2013	1700	71	0.01	0	640	8.8	72.4	32	41.2	7.9	347	62.3
-		Cuyama		3/12/2013	1800		0	0	209	9.1	68.4	38	42.2	7.6	13	63.3 Y
-					1900		0	0	3	9.7	61.6	52	43.8	7.9	136	63.7 Y
1 1	121	Cuyama	Central Coast Valleys Central Coast Valleys			-	0			9.8	57.2	61	44.1	7.3	159	63.8 Y
1.00	12.	Cuyama	and the second sec		2000	100		0	0							
1.1.1	88 C	Cuyama	Central Coast Valleys	3/12/2013	2100	1.3.1	0	0	0	9.7	54.8	66	43.7	5.9	111	63.4 Y
1	88 C	Cuyama	Central Coast Valleys	3/12/2013	2200	71	0	0	0	9	50	73	41.7	4	147	62.9
1	88 C	Suyama	Central Coast Valleys	3/12/2013	2300	71	0	0	0	8.4	47.1	76	40.1	4.3	122	62.3
1	88 C	Cuyama	Central Coast Valleys	3/12/2013	2400	71	0	0	0	8.3	45.8	79	39.6	3	115	61.6
1	5 C 1 S	uyama	Central Coast Valleys	3/13/2013	100	72	0	0	0	7.9	45.7	75	38.4	5.1	117	60.9
	1	Cuyama	here and the second	3/13/2013	200		0	0	0	7.5	44.5	75	37.2	5.8	118	60.2
-	12		Central Coast Valleya		300	12	0	0	0	7.2	44.1	74	38.2	7.1	111	59.4
-	1	Cuyama								7	and the second se	76	35.5	4.9	118	58.7
1	512	Suyama	Central Coast Valleys		400		D	0	0		42.6					
	88 C	Cuyama	Central Coast Valleys	3/13/2013	500	72	0	D	0	7	41.6	79	35.5	4.1	96	58
1	88 C	Cuyama	Central Coast Valleys	3/13/2013	600	72	0	0	0	6.8	40.9	78	34.5	5.7	109	57.3
1	88 C	uyama	Central Coast Valleys	3/13/2013	700	72	0	0	64	6.7	42	74	34.4	5.1	122	58.6
1	88 C	uyama	Central Coast Valleys	3/13/2013	800	72	0	0	436	7.9	48,2	69	38.3	5.6	97	55.9
Fra	88 C	luyama	Central Coast Valleys	3/13/2013	900	72	0.01	0	866	8.6	59	51	40.7	5	75	55.5
1 3	1		Central Coast Valleys		1000	1.22	0.02	0	1250	8.3	67.6	36	39.8	4	72	55.4
-		Cuyama		the second s						7	75.5 Y	23 Y	35.3 Y	3.6	86	55.9
-	1	Juyama	Central Coast Valleys		1100	72	0.02 Y	0	1547	- Aller	1.0.1		127.0		342	22.00
	88 C	uyama	Central Coast Valleys	and a second	1200	- C	0.02 Y	0	1722	6.9	80 Y	20 Y	34.9 Y	2.7		57
	88 C	uyama	Central Coast Valleys	3/13/2013	1300	72	0.02 Y	0	1757	5.9	82.9 Y	15 Y	31.2 Y	3.6	301	58.7
1	88 C	uyama	Central Coast Valleys	3/13/2013	1400	72	0.02 Y	0	1656	5.9	84.7 Y	15 Y	31.3 Y	5.4	304	60.6
1	88 C	luyama	Central Coast Valleys	3/13/2013	1500	72	0.02 Y	0	1400	9	82.4 Y	24 Y	41.7 Y	11.4	340	62.6 Y
	88 C	uyama	Central Coast Valleys	3/13/2013	1600	72	0.02 Y	0	1060	8.8	60.9 Y	24 Y	41.1 Y	11.4	345	64.5 Y
	88 C	uyama	Central Coast Valleys	3/13/2013	1700	72	0.01 Y	0	640	9.1	77.3 Y	28 Y	42 Y	8.4	348	66 Y
-	1		Central Coast Valleys	and the second sec	1800		OY	0	218	9.5	73.2 Y	34 Y	43.3 Y	5.6	120	67 Y
1	-		Central Coast Valleys		1900	111	0	0	3	10.6	64.5	51	46.1	5	164	67.4 Y
-	212		the second se		1000	1.0					01-1		43.3	2.4	186	67.4 Y
1	1	uyama		3/13/2013	2000	_	0	D	0	9,6	59.1	56				
	21		and the second se	3/13/2013	2100	1.1	C	0	0	9.2	55.9	60	42,4	2.9	126	67 Y
-	(A)	1 C C C C C C C C C C C C C C C C C C C	1	3/13/2013	2200	1.5	0	0	0	9	52.9	66	41.7	4.6	133	66.4 Y
6	88 C	uyama	Central Coast Valleys	3/13/2013	2300	72	0	0	0	8.6	51.5	67	40.7	5	129	65.7 Y
	88 C	uyama	Central Coast Valleys	3/13/2013	2400	72	0	0	0	8	50.6	64	38.8	6.3	115	64.9 Y
E	88 C	ayama	Central Coast Valleys	3/14/2013	100	73	0	0	0	7.7	48.9	65	37.7	5.9	135	64,1 Y
	Ba C	uyama	Central Coast Valleys	3/14/2013	200	73	0	0	0	7.6	47.2	69	37.6	5.3	117	63.3 Y
		uyama	Central Coast Valleys	A company in the	300	73	0	0	0	7.4	45.9	70	36.9	5.4	115	62.5 Y
			Central Coast Valleys		400		0	0	0	7.6	45.1	74	37.3	5,1	114	61.7 Y
-	1		Central Coast Valleys		500		0	0	0	7.2	45.1	70	38	6.9	102	60.9
1	<u></u>		a second s	3/14/2013		_			A			71	36	6.4	97	60.2
6-13	-	uyama		C	600		0	0	0	7.2	44,9	-	1000			
1.1.1	10 11		A REAL PROPERTY AND A REAL	3/14/2013	700		0	0	68	6.8	46.6	63	34.7	5.7	124	59.5
8	88 C	uyama	Central Coast Valleys	3/14/2013	800	73	D	0	448	8.2	51.8	62	39.3	6.1	107	58.8
8	58 C	uyama	Central Coast Valleys	3/14/2013	900	73	0.01	0	878	9	61.2	49	41.9	5.6	91	58.3
.6	38 C	uyama	Central Coast Valleys	3/14/2013	1000	73	0.02 Y	0	1267	8.6	70.9 Y	33 Y	40.5 Y	3	125	58.2
8	_		Central Coast Valleys	3/14/2013	1100	73	0.02 Y	0	1481	8	76.2 Y	26 Y	38.6 Y	3,7	315	58.7
	1			3/14/2013	1200		0.03 Y	0	1753	7.5	82.6 Y	20 Y	37.2 Y	5.6	305	59.9
Laine	21			3/14/2013	1300	-	0.03 Y	0	1712	6.8	85.8 Y	16 Y	34.8 Y	5.5	299	61.5 Y
-	-					_			1590	8.5	85.4 Y	20 Y	40.3 Y	9.8	331	63.4 Y
	-	-	Central Coast Valleys		1400		0.03 Y	0			100 million (100 m					65.3 Y
	1		Central Coast Valleys		1500		0.02 Y	0	1259	10.8	82.5 Y	29 Y	48.7 Y	13.6	342	
8	38 C	uyama	Central Coast Valleys	3/14/2013	1600	73	0.02 Y	0	897	11.1	79.7 Y	32 Y	47.4 Y	10.7	355	67 Y
8	38 C	uyama	Central Coast Valleys	3/14/2013	1700	73	0.01 Y	0	547	11.3	77.8 Y	35 Y	47.8 Y	7.2	2	68.3 Y
8	38 C	uyama	Central Coast Valleys	3/14/2013	1800	73	OY	0	137	11.7	74.1 Y	40 Y	48.6 Y	4	317	69.1 R
8	38 C	uyama	Central Coast Valleys	3/14/2013	1900	73	0 Y	0	2	9.2	68.3 Y	39 Y	42.4 Y	2.7	181	69.4 R
- 3			Central Coast Valleys	and the second of	2000	100	0 Y	0	0	11.8	62.8 Y	60 Y	48.9 Y	4.7	166	69.4 R
1	20.00	· · · · · · · · · · · · · · · · · · ·			2100	1.1	OY	0	0	10.9	60,1 Y	61 Y	48.8 Y	3	179	69 Y
8	-		Central Coast Valleys										48.3	3.6	157	68.5 Y
1.000	Sol C	uyama	Central Coast Valleys		2200	_	0	0	0	10.7	58.9	68	40.0		107	
8													and a second sec		-04	87 8
			Central Coast Valleys Central Coast Valleys		2300 2400		0 Y 0 Y	0	0	10.7	59.2 Y 57.1 Y	62 Y 66 Y	48.2 Y 46 Y	4.6	104	67.8 Y 67.1 Y

- the second	na Central Coa	st Valleys	3/15/2013	100	74	0	D	0	10.9	55.8	72	46.8	3.7	120	66.4 Y
88 Cuyan	na Central Coa	st Valleys	3/15/2013	200	74	0	0	0	10.8	55,3	72	46.5	3.4	71	65.8 Y
88 Cuyam	na Central Coa	st Valleys	3/15/2013	300	74	0	0	Ó	10.9	54.1	76	46.7	3.9	102	65.1 Y
88 Cuyam	na Central Coa	st Valleys	3/15/2013	400	74	0	0	0	10.1	50.8	80	44.8	2.3	88	64.4 Y
88 Cuyam				500	1	0	0	0	10.1	50.7	80	44.8	4.3	84	63.8 Y
88 Cuyan			1.1.1.1.1.1.1.1		74	0	0	0	9.2	47.5	82	42.2	2.9	93	63.2 Y
88 Cuyam		1910-101	3/15/2013		74	0	0	49	9.9	48	86	44.2	3.6	140	62.5 Y
	Contraction and the second	1.		800			3					44.5	4.8	85	61.9 Y
				446		0	0	382	10	49.9	82				
88 Cuyam			3/15/2013	900		0.01	0	823	11.7	58	71	48.7	6.1	70	61.4 Y
88 Cuyam	na Central Coa		3/15/2013	1000		0.02	0	1224	11.4	64.6	55	48	6.4	108	61.2 Y
88 Cuyam	na Central Coa	st Valleys	3/15/2013	1100	74	0.02	0	1510	12	68.3	51	49.5	4.5	50	61.5 Y
88 Cuyam	na Central Coa	st Valleys	3/15/2013	1200	74	0.02	0	1695	11.5	71.9	43	48.2	3.3	228	62.3 Y
88 Cuyam	na Central Coa	st Valleys	3/15/2013	1300	74	0.02	0	1737	11.1	75.7	37	47.2	4.7	57	63.6 Y
88 Cuyam	na Central Coa	st Valleys	3/15/2013	1400	74	0.03	0	1586	9.9	76	32	44.2	11.2	339	65.2 Y
88 Cuyam	na Central Coa	t Valleys	3/15/2013	1500	74	0.02	0	1374	9.7	74.8	33	43.7	9.6	359	66.8 Y
88 Cuyam		t Valleys	3/15/2013	1600	74	0.02	0	944	9.5	73.7	33	43.2	10.1	343	68.4 R
88 Cuyam			3/15/2013	1700		0.01	0	455	9.5	71.2	36	43.2	10.7	348	69.5 R
88 Cuyam	0 12 30 States			1800		0	0	114	10.2	68	44	45.2	6.7	66	70.1 R
88 Cuyam		1	1	1900		0	0	3	10.6	63.4	53	46.1	5.5	127	70.3 R
	7				10.0			SE		~~~~	and the second second			139	70 R
88 Cuyam			3/15/2013	2000		0	0	0	10.4	59.4	60	45.5	4.3		
88 Cuyam	10 10 10 10 10 10 10 10 10 10 10 10 10 1		1.0000000000000000000000000000000000000	2100		0	D	0	10.1	58.2	61	44.9	4	149	69.5 R
88 Cuyam	The state of the state of the		3/15/2013	2200	74	0	D	0	9.7	68.2	63	43.7	4.4	178	68.9 Y
88 Cuyam	na Central Coa	it Valloys	3/15/2013	2300	74	0	0	0	9.6	53.9	68	43.4	5.7	169	68.2 Y
88 Cuyam	na Central Coa	t Valleys	3/15/2013	2400	74	Q	0	0	8.9	50.5	71	41.4	2.9	123	67.4 Y
88 Cuyam	na Central Coa	t Valleys	3/16/2013	100	75	0	0	0	8.9	48	78	41.4	4.3	114	66.7 Y
88 Cuyam			3/16/2013	200		0	0	0	8.5	46.5	79	40.2	4.8	113	65.8 Y
88 Cuyam			3/16/2013	300		0	0	0	8.1	44.6	81	39.1	4.2	124	65 Y
88 Cuyam	100 C		3/16/2013	400		0	0	0	7.2	43.1	76	36	3.2	134	64.2 Y
88 Cuyam			3/16/2013	500		0	0	0	6.8	42.9	72	34.5	3.7	129	63.4 Y
- C-				600		0	0	0	6.8	41.4	11	34.8	4.3	82	62.6 Y
88 Cuyam		- 1. C. P. C.	3/16/2013						1	the second second					61.8 Y
			3/16/2013	700	1.6.1	0	0	70	7.4	41.9	81	36.7	5.5	113	
88 Cuyam			3/16/2013	800	()) () () () () () () () () (D	0	426	8.9	48,4	n	41.4	5.2	72	61.1 Y
88 Cuyam			3/16/2013	900	100	0.01	0	858	10.4	56.8	66	45.7	6	75	60.5
88 Cuyam	na Central Coa	t Valleya	3/16/2013	1000	75	0.02	0	1241	10.7	63.3	54	46.4	5.6	100	60.3
88 Cuyam	na Central Coa	t Valleys	3/16/2013	1100	75	0.02	0	1530	10	66.3	45	44.6	5	114	60.6 Y
88 Cuyam	na Central Coa	t Valleys	3/16/2013	1200	75	0.02	0	1708	9.1	68.7	38	42.1	7.6	351	61.4 Y
88 Cuyam	a Central Coa	t Valleys	3/16/2013	1300	75	0.02	0	1751	8.4	69.6	34	39.9	8.4	347	62.7 Y
88 Cuyam	and the second second	t Valleys	3/16/2013	1400	75	0.02	0	1660	8	70.9	31	38.6	6.9	345	64.3 Y
88 Cuyam	a Central Coa	t Valleys	3/16/2013	1500	75	0.02	0	1429	7.7	71.7	29	37.8	7.6	345	65.8 Y
BB Cuyam	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		3/16/2013	1600		0.02	0	1095	7.5	71.7	28	37.2	9.1	346	67.3 Y
88 Cuyam			3/16/2013	1700		0.01	0	668	7.1	70.7	28	35.9	9.1	337	68.5 R
										68.2		36.2	8	338	69.2 R
B8 Cuyam			3/16/2013	1800		0.01	0	225	7.2		31				
68 Cuyam			3/16/2013	1900		0	0	5	6.8	63,8	34	34.7	4.7	3	69.4 R
88 Cuyam	the second s		3/16/2013	2000	75	0	0	0	7.3	59.1	43	36.5	4.4	41	69.2 Y
88 Cuyam	na Central Coa	t Valleys	3/16/2013	2100	75	0	0	0	7.9	54.1	55	38.4	3.7	94	68.8 Y
88 Cuyam	a Central Coa	t Valleys	3/16/2013	2200	75	0	D	0	7.8	51	61	38.1	3.8	165	68.1 Y
88 Cuyam	a Central Coa	t Valleys	3/18/2013	2300	75	0	0	0	7.9	49.2	66	38.4	3,3	87	67.4 Y
88 Cuyama	a Central Coa	t Valleys	3/16/2013	2400	75	0	0	0	7.9	47.2	72	38.5	3.6	176	66.6 Y
B8 Cuyam	a Central Coa	t Valleys	3/17/2013	100	76	0	0	0	7.7	46.6	71	37.8	3.8	146	65.7 Y
88 Cuyam	a Central Coa	t Valleys	3/17/2013	200	78	0	0	0	7.3	45.7	70	36.4	3.3	101	64.9 Y
88 Cuyama	a Central Coas	t Valleva	3/17/2013	300	76	D	0	0	7.4	44.5	74	36.7	4,1	137	64.1 Y
88 Cuyama			3/17/2013	400		D	0	0	7.2	46.8	66	36	5.7	147	63.3 Y
88 Cuyama		Contract Products	3/17/2013	500	76	0	0	0	6.9	45	67	34.9	4.2	146	62.5 Y
1.0			1							22		100000		93	61.8 Y
68 Cuyama	Contraction of the second		3/17/2013	600		0	0	0	6.4	42.5	70	33.3	3.8		10100
88 Cuyama			3/17/2013	700		0	0	60	6.3	40.6	74	32.8	4.2	93	61.1 Y
88 Cuyama			3/17/2013	800	76	O	0	471	7.4	48.6	64	36.9	5.8	113	60.4
88 Cuyama	a Central Coas	Valleys	3/17/2013	900	76	0.01	0	882	6.9	57.1	43	34.9	8.4	109	59.8
88 Cuyama	a Central Coas	Valleys	3/17/2013	1000	76	0.02	0	1261	7.4	59.4	43	36.9	9.5	81	59.6
88 Cuyama	a Central Coas	Valleys	3/17/2013	1100	76	0.02	0	1553	7.5	62.2	39	37.1	7.7	86	59.8
88 Cuyama	a Central Coas	Valleys	3/17/2013	1200	76	0.02	0	1706	7.3	84.7	35	38.8	8.5	348	60.5 Y
68 Cuyama	a Central Coas	Valleys	3/17/2013	1300	76	0.02	0	1747	7.3	66.4	33	36.5	7.7	5	61.7 Y
88 Cuyama	a Central Coas	Valleys	3/17/2013	1400	78	0.02	0	1679	6.9	67	31	35.1	11.5	340	63.1 Y
88 Cuyama		Valleys	3/17/2013		76	0.02	0	1435	6.9	67.1	30	34.9	10	347	64.5 Y
88 Cuyama			3/17/2013	- Aller	76	0.02	0	1107	6.6	87	29	33.9	9.6	348	65.9 Y
88 Cuyama			3/17/2013		76	0.01	0	587	6.3	65.8	29	32.9	9.1	358	66.9 Y
the second second	the second se		3/17/2013			0.01	0		6.1	63.6	30	32	7.4	13	67.6 Y
			100 M 100 M		76			181		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
88 Cuyama			3/17/2013	1900		0	0	3	6.8	58.1	41	34.6	4.1	88	67.8 Y
88 Cuyama			3/17/2013		78	0	0	0	7.2	54	51	36.2	5,1	153	67.6 Y
88 Cuyama		Valleys	3/17/2013		76	0	0	Ö	6.9	50.5	55	35.1	4.7	177	67.1 Y
88 Cuyama	a Central Coas	Valleys	3/17/2013	2200	76	0	C	0	6.9	47.4	62	34.9	4,5	109	66.4 Y
88 Cuyama	and a strength of the strength	Valleys	3/17/2013	2300	76	0	0	0	6.5	43.4	68	33.5	3.2	152	65.7 Y
88 Cuyama	a Central Coas	Valleys	3/17/2013	2400	76	Ö	0	0	6.7	42.7	71	34.2	3.4	114	64.9 Y
88 Cuyama	a Central Coas	Valleys	3/18/2013	100	77	0	o	0	6.1	41.3	70	32.1	4.6	112	64.1 Y
88 Cuyama	1.00		3/18/2013		77	0	0	0	5.8	40.5	68	30.8	3	95	63.3 Y
88 Cuyama			3/18/2013		77	0	0	0	5.9	39.5	72	31.2	3.4	115	62.5 Y
68 Cuyama			3/18/2013		17	0	0	0	5.8	37.3	77	30.7	4.3	95	61.7 Y
											the second se		4.4	107	60.9
88 Cuyama			3/18/2013	1.52%	77	0	0	0	5.9	37.6	77	31		and the second se	
88 Cuyama			3/18/2013		77	0	0	0	5.8	35.6	80	30	3	108	60.1
B8 Cuyama			3/18/2013	700		0	0	92	5.8	36.5	80	30.9	4.8	78	59.3
88 Cuyama	a Central Coas	Valleys	3/18/2013	800	77	0	0	478	6.6	44.3	67	34	6.4	82	58.6
	a Central Coas	Valleys	3/18/2013	900	77	0.01	0	900	7	53.2	50	35.3	6.4	74	58.1
68 Cuyama	0	Valleys :	3/18/2013	1000	77	0.02	0	1306	5.9	60.1	33	31	5	120	57.9
88 Cuyama 88 Cuyama	a Central Coas	100 million (1997)			-		0	1592	6.3	64.1	31	32.6	4.4	118	58.2
1.67		Valleys 1	3/18/2013	1100	77	0.02								110	00.4
88 Cuyama	a Central Coas		18/2013 18/2013		17	0.02	o	1464	6.4	66.9	29	33.3	4	118	59.2

8 Cuyama	Central Coast Valleys	3/18/2013	1400	77	0.02	0	1053	6.4	87.7	28	33.2	6.5	123	e
8 Cuyama	Central Coast Valleys	3/18/2013	1500	77	0.01	0	671	6.1	67.4	27	32.1	5.3	97	63.
8 Cuyama	Central Coast Valleys	3/18/2013	1600	77	0.01	0	484	6	67.2	26	31.6	5.9	112	6
8 Cuyama	Central Coast Valleys	100000000	1700	77	0.01	0	230	6.7	65	32	34.2	6	95	64.
8 Cuyama	Central Coast Valleys	3/18/2013	1800	77	0	0	82	7,1	62.2	37	35.7	4.9	91	64
8 Cuyama	Central Coast Valleys		1900	77	0	0	2	7.4	59.8	42	36.9	4.4	131	6
8 Cuyama	Central Coast Valleys	3/18/2013	2000	77	0	0	0	7.3	57.9	44	38.3	4.3	212	64.
8 Cuyama	Central Coast Valleys	3/18/2013	2100	77	0	0	0	8.4	57,1	53	40.1	4.5	257	64.
B Cuyama	Central Coast Valleys	3/18/2013	2200	17	0	0	0	8.1	52.8	60	39.1	3.6	148	64
8 Cuyama	Central Coast Valleys	3/18/2013	2300	77	0	0	0	8.3	51,5	64	39.7	3.7	133	63
B Cuyama	Central Coast Valleys	3/18/2013	2400	77	0	0	Ó	8	51.9	61	38.9	3	98	63
B Cuyama	Central Coast Valleys	3/19/2013	100	78	0	0	0	7.5	50	61	37.2	3,5	128	-
B Cuyama	Central Coast Valleys	3/19/2013	200	78	0	0	0	7.7	50.3	62	37.9	2	167	62
Cuyama	Central Coast Valleys	and an owned	300	78	0	0	0	7.6	47.2	89	37.4	3.1	109	-
Cuyama	Central Coast Valleys	The second	400		0	0	0	7.6	46	72	37.4	3.3	103	61
Cuyama	Central Coast Valleys		500		0	0	0	6.9	43.2	72	35	3.6	119	61
Cuyama	Central Coast Valleys		600	100 million 1000	0	0	0	6.4	41,5	72	33.2	4.4	112	60
	Central Coast Valleys	1. A. M	700		0	0	94	6.3	40.7	73	32.9	3.9	91	
Cuyama Cuyama	Central Coast Valleys	3/19/2013	800		0	0	473	7	47.9	62	35.5	5.1	96	55
			900		0.01	0	656	7.6	56.2	49	37.3	4.9	64	
	Central Coast Valleys	3/19/2013	1000		0.02				1212	37	35.9	3.9	80	58
	Central Coast Valleys Central Coast Valleys	1000000		78		0	1237	7.1	62.8		33.1	3.6	100	59
Cuyama					0.02	0	1512	6.4	67.8	27				
Cuyama	Central Coast Valleys	-			0.02	0	1598	6.7	70.8	26	34.2	4.8	105	60
Cuyama	Central Coast Valleys	3/19/2013	1300	78	0.02	0	1720	7.1	72	26	35.7	6.4	351	61
Cuyama	Central Coast Valleys	3/19/2013	1400	78	0.02	0	1652	7.2	73.2	26	36	6.6	351	53
Cuyama	Central Coast Valleys	3/19/2013	1500	78	0.02	0	1406	6.9	73.6	24	35.1	6.7	352	64
Cuyama	Central Coast Valleys	3/19/2013	1600	78	0.02	0	1174	7	73.7	25	35.3	5.7	20	66
Cuyama	Central Coast Valleys	3/19/2013	1700	78	0.01	0	572	7.8	70.1	31	38.2	7.4	68	67
Cuyama	Central Coast Valleys	3/19/2013	1800	78	0	0	217	8.2	68,8	34	39.3	5.4	318	68
Cuyama	Central Coast Valleys	3/19/2013	1900	78	0	0	3	7.9	63.9	39	38.4	8	275	68
Cuyama	Central Coast Valleys	3/19/2013	2000	78	0	0	0	7.8	61.4	42	38.1	5.9	276	68
Cuyama	Central Coast Valleys	3/19/2013	2100	78	0	0	0	7.9	59.4	46	38.5	5.5	269	68
Cuyama	Central Coast Valleys	1.		78	0 Y	0	0	8	58.1 Y	49 Y	38.8 Y	3.3	250	68
Cuyama	Central Coast Valleys	3/19/2013	2300	78	0	0	0	8	58.6	51	38.6	2.2	244	6
Cuyama	Central Coast Valleys	3/19/2013	2400	78	0	0	0	8.2	54.9	55	39.3	2	263	67
Cuyama	Central Coast Valleys	3/20/2013	100	79	0	0	0	8	55.3	54	38.8	4.5	56	66
Cuyama	Central Coast Valleys	3/20/2013	200		0	0	0	8.5	53	62	40.5	9.2	134	
	Central Coast Valleys Central Coast Valleys	3/20/2013				0	0	8.8	50.7	62	41.1	5.9	134	65
Cuyama		1000		110	0					76		3.8	130	64
	Central Coast Valleys	3/20/2013	400	79	0	0	O	8.5	47.4		40.4			
Cuyama	Central Coast Valleys	3/20/2013	500	79	0	0	0	8	45.2	79	38.9	2.4	171	64
Cuyama	Central Coast Valleys	3/20/2013	600	79	C	0	0	7.7	47	70	37.9	4.8	201	63
Cuyama	Central Coast Valleys	3/20/2013	700	79	0	0	65	7.9	45.3	77	38.6	3.9	125	62
Cuyama	Central Coast Valleys	3/20/2013	800	79	0	0	279	8.8	49.2	74	41.3	5	86	62
Cuyama	Central Coast Valleys	3/20/2013	900	79	0.01	0	551	9.1	54.6	63	42.1	3.4	118	61
Cuyama	Central Coast Valleys	3/20/2013	1000	79	0.01	0	864	9.8	59.7	56	44	3.3	291	61
Cuyama	Central Coast Valleys	3/20/2013	1100	79	0.02	0	1346	9.3	64.5	45	42.6	3.7	327	61
Cuyama	Central Coast Valleys	3/20/2013	1200	79	0.02	0	1388	8.6	67.5	37	40.5	4.2	313	
Cuyama	Central Coast Valleys	3/20/2013	1300	79	0.01	0	935	8.1	68.1	35	39.1	4.2	278	
Cuyama	Central Coast Valleys	3/20/2013	1400	79	0.02	0	1501	8.6	69.9	34	40.6	6	334	64
Cuyama	Central Coast Valleys	3/20/2013	and the second second	79	0.01	0	794	9.3	68.2	39	42.6	8.3	335	65
Cuyama	Central Coast Valleys	3/20/2013	1600	79	0.01	0	415	9.2	67	41	42.3	7.8	350	66
Cuyama	Central Coast Valleys	3/20/2013		79	0	0	188	9.5	65	45	43.2	8.8	352	67
Cuyama	Central Coast Valleys	3/20/2013		79	0	0	81	10.4	62.2	55	45.7	5.1	76	67
										57	In-cit	3.3	141	67
Cuyama		3/20/2013		79	0	0	7	10.2	60.5		45.1			-
Cuyama		3/20/2013		79	D	0	D	10.1	57.4	63	44.8	3.6	174	67
Cuyama		3/20/2013		79	0	0	0	9.6	55.1	65	43.5	2	254	67
Cuyama	Central Coast Valleys	la seconda de	2200		0	0	0	8.9	51,7	68	41.5	1.8	198	66
Cuyama		3/20/2013	2300	79	0	0	0	8.5	48.5	73	40.3	3.4	175	66
Cuyama	Central Coast Valleys	3/20/2013	2400	79	0	0	0	8.4	47.1	76	40	3.6	137	65
Cuyama	Central Coast Valleys	3/21/2013	100	80	0	0	0	8.4	47.2	76	40.1	3.2	186	64
Cuyama	Central Coast Valleys	3/21/2013	200	80	0	0	0	8.4	48.2	73	39.9	2.7	129	64
Cuyama	Central Coast Valleys	3/21/2013	300	80	0	0	0	9.2	50.4	74	42.2	3.3	63	63
Cuyama	Central Coast Valleys	3/21/2013	400	80	0	0	0	10	51.4	77	44.5	3.7	84	63
Cuyama	Central Coast Valleys	3/21/2013	500	80	0	D	0	9.9	50.5	79	44.4	3.5	114	62
Cuyama	Central Coast Valleys	3/21/2013	600	80	0	0	0	10,1	49.8	83	44.8	4.5	94	61
Cuyama	Central Coast Valleys	A CONTRACTOR OF A CONTRACTOR A		80	0	0	15	10.8	50.7	86	46.6	7	72	61
Cuyama	Central Coast Valleys	3/21/2013	800		0	0	101	10.9	50.2	88	46.9	7.3	68	61
Cuyama	Central Coast Valleys	3/21/2013	- init	80	0	0	201	11.3	50.4	90	47.7	7.5	57	60
Cuyama	Central Coast Valleys			_	0.01	0	588	11.1	50.6	89	47.4	6.8	4	60
Cuyama		3/21/2013	1100		0.01	0	635	11.1	52.6	82	47.3	8.4	344	60
Cuyama	and the second se	3/21/2013		-	0.01	0	860	11.1	54.1	78	47.3	7.5	355	60
Cuyama		3/21/2013	1300		0.01	0	941	10.8	55.4	72	46.6	7.3	74	60
Cuyama	Central Coast Valleys			- X	0.01	0	1277	10.8	57.1	65	45.5	5.B	87	61
	Contraction of the second	and the second second	10.1	-				10.4	58.6	62	45.8	7.6	62	61
Cuyama	Central Coast Valleys				0.02	0	1264	and the second se	240		815			62
Cuyama	Central Coast Valleys			2 . Carlo	0.01	0	1021	10.3	59	60	45.2	8.8	10	
Cuyama	Central Coast Valleys			-	0.01	0	752	10.1	58.3	61	44.7	7.4	30	63
Cuyama	Central Coast Valleys	and the second		80	0	0	261	9.9	56.4	63	44.2	8	132	64
Cuyama	Central Coast Valleys			80	0	0	8	9.6	53.3	69	43.3	4.6	124	64
Cuyama	Central Coast Valleys	3/21/2013	2000	80	0	0	D	9.3	61.1	73	42.7	4,3	150	64
Cuyama	Central Coast Valleys	3/21/2013	2100	80	0	0	D	8.7	47.7	77	40.9	2.5	146	64
Cuyama	Central Coast Valleys	3/21/2013	2200	80	0	0	0	8.3	46.3	77	39.6	2.3	129	63
Cuyama	Central Coast Valleys	3/21/2013	2300	80	0	0	0	7	45.7	67	35.5	3.7	82	63
Cuyama	Central Coast Valleys	3/21/2013	2400	80	0	0	0	7.4	45.2	72	38.8	4.7	63	62
		3/22/2013	100	6 A	0	0	0	7.2	43.6	75	36.1	4.7	114	61
Cuyama	Central Coast Valleys													

				where the state of the state of the					an unit of the state of the sta	and have been been a second of the region of	· · · · · · · · · · · · · · · · · · ·			
	Cuyana	Central Costet Valleys		300	1		¢	5.8	42.6	52	30.6	6	115	60.4 59.8
	Cuyoma	Certital Coast Valueys	3/22/2013	400	3	F; (0	â	5.7	41.1	65	30.1	6.3	119 126	59,1
1.11	Cuyama	Control Coast Valleys	3/22/2013	500	2		C	5.4	39.2	66	28.9	6	120	59.) 58.4
1.14	Cuyama	Central Coast Valleys	3/22/2013	603		· · · · · · · · · · · · · · · · · · ·	1	5.3	39.6	64	28.5	6.1 5.2	136	57.8
10.04	Cuyama	Control Coast Valleys	3/22/2013	700			114	5.1 5.2	40.0 46.2	6D 49	27.8 28.1	6.7	129	57.2
	Cuyama	Central Coast Valleys	3/22/2013	800		÷ (511	1		40	26.4	6.8	27	58.7
	Cuyama	Central Coast Valleys	3/22/2013	900			933	4.9	49,4	40	28.1	5.9	31	56.6
	Cuyama	Centrol Cossi Vallays	3/22/2013	1003			1302	5.2	54.5	37	29	4.5	69	57.1
	Соузлия	Central Coast Valleys	3/22/2013	1100		<u>. 1</u>		5.4 6.1	67,7	37	31.8	4.3	67	58
110.04	Cuyuma	Central Coast Valleys	3/22/2013	1200			1761	6.4	91,1 51,2	35	33.3	7.3	340	59.4
	Cuyana	Centrol Coast Valleys	3/22/2013	1300	1 () () () () () () () () () (1.1	1794		Constanting of the	1	28.9	10		18 18
10.101	Cuyana	Control Coast Valleys	3/22/2013	\$408;			1699	5	63.3	25	ENERN CADRER	12.7	344	62.5
	Cuyama	Central Coast Velleys	3/22/2013	1500			1476	3.9	84	19	21.4		357	63.0
	Cuyama	Central Coast Valleys	3/22/2013	1600		1 1	1127	3.9	63.1	50	21.2	11.5	357 344	63.0 85
10.0	Cuyama	Central Coast Valleys	3/22/2013	1700		1 I I I I I I I I I I I I I I I I I I I	713	2.9	8.f3	15	14.3	13.9	339	65.6
1 HOR	Coyama	Central Coast Valleys	3/22/2013	1800	<		259	2.9	58.3	18	14.5	9.4		60.0 65.8
	Ceyema	Central Coast Valleys	3/22/2013	1900			9	2.3	53.7	16	9.2	7.8	355	
88	Ceyama	Contral Coast Valleys	3/22/2013	2000			¢	2.6	49,7	<u>51</u>	11.3	8.5	45	65.8
N 1994	Cujauna	Central Coast Valleys	3/22/2013	2100			C	3.1	47.3	25	16.2	5.2	De	66.1
58	Cuyama	Central Coast Valieys	3/22/2013	2200	81 I		0	3.7	45.2	36	19.6	4.5	105	G4,4
88	Cuyama	Central Coast Valleys	3/22/2013	2300		4 A A	0	3.7	39.4	46	20.1	3.2	137	63.B
68	Cuyama	Central Coast Valleys	3/22/2013	2400	5		۵	3,7	38	47	19.7	3.6	115	62.7
68	Cuyama	Central Coast Valleys	3/23/2013	100			0	3.9	38.9	49	21,4	5.2	129	61.9
11 I I I I I I I I I I I I I I I I I I	Cuyama	Central Const Valleys	3/23/2015	200		(I I I I I I I I I I I I I I I I I I I	0	3.9	38.6	49	.21	5.5	155	61
88	Cuyama	Central Coast Valleys	3/23/2013	360	ß2 I	9 I B	Ŭ	3.8	33.2	60	20.8	3.6	75	60,1
60	Скуата	Central Coast Valleys	3/23/2013	400		C C	Q	3.7	33.6	57	20.1	3.4	112	59.3
88	Ceyana	Control Coest Volleys	3/23/2013	500		<u>) </u>	0	3.5	34.6	52	18.9	5	161	68.6
88	Cuyana	Control Coast Volleys	3/23/2013	600	62 (0	3	3.9	30.9	67	21.4	6.4	101	57.7
88	Соуалы	Central Coast Valleys	3/23/2013	700	82 I	3 I.I. I.I. 3	122	4	33.2	62	21.6	6.7	101	56.9
83	Cuyema	Central Coast Valleys	3/23/2013	603	82 1) 0	526	4.3	39,4	52	23.3	6.9	85	58.2 ערביים הייצייייים
								Averages	34.2	58	21.0	6.0		
88	Cuyama	Centra: Coast Valleys	3/23/2013	\$00	62 0.0		660	4.5	47,6	39	23.8	6.8	84	55.7
88	Cuyama	Central Coast Valleys		1000		4 4	1337	4.1	63.1	29	82.5	5.6	108	55.5
58	Cuspitena	Central Coast Valleys	3/23/2013	1100	62 0.03	· · · · ·	1619	4.2	67	26	22.8	5.2	134	55.9
88	Cuyama	Central Coast Wileys	3/23/2013	1200	62 0.0	2 0	\$774	4.4	60.4	25	24.2	4.7	133	58.6
88	Cuyama	Contral Coast Valleys	3/23/2013	1300	62 0.0	0	1807	4.8	63.6	24)	26.2	7.1	84	58.3
68	Cuyama	Central Coast Valleys	3/23/2013	1400	62 0.0	3. 1	1693	4.3	66.9	20	23.7	5	330	60
88	Cuyama	Central Coast Valleys	3/23/2013	1600	82 0.0	ε Ο	1421	3.7	57	16	20	6.6	343	51.6
68	Cuyama	Central Coust Valleys	3/23/2013	1600	62 0.0	0	1063	3.6	56.6	18	19	10.4	344	63.2
88	Cuyama	Central Coast Velleys	3/23/2013	1700	82 0.0	٥	478	3.4	54.1	16	17.8	10.5	353	64.0
88	Cuyama	Central Coast Valleys	3/23/2013	1800	82 (0	193	4.7	80.2	26	25.5	7.2	85	65.6
58	Cuyama	Central Coast Vallays	3/23/2013	1900	62 0	0	9	4.9	55	33	26.7	5.4	110	65.8
88	Cuyama	Central Coast Valleys	3/23/2013	2000	82 1	0	0	4.8	60.5	37	25.2	4,9	160	65.6
88	Сеуста	Control Coost Valleys	3/23/2013	2100	62 (C D	C	4.2	45.5	41	23,2	3.4	180	65.2
88	Сеуала	Central Coast Valleys	3/23/2013	2260	ê2 (C C	á	4.2	44	42	22.7	3.3	560	£4.6
29	Cepama	Central Coast Valleys	3/23/2015	2300	62 (0	0	4.5	40.1	54	24.7	4.2	80	63.8
88	Cuyama	Central Coast Valleys	3/23/2013	2400	82 I	0	0	4.4	38.8	54	23.6	5.4	117	63
1.1.1.1	Cuyama	Control Coast Velleys	3/24/2013	100	83 (r O	ů.	4.3	37.3	56	23.3	4.6	104	62.2
88	Cuyama	Central Coast Valleys	3/24/2013	200	83 6	0	D	4.1	35.9	67	22.2	4.6	104	61,3
	Cuyana	Contral Coast Valleys	3/24/2013	300	63 (0	Q	3.8	35.3	55	9.92	5,1	\$07	60.5
88	Cuyama	Central Coast Valleys	3/24/2013	400	83 (0	0	3.0	34.3	66	20.9	5.2	103	59,6
	Curyama	Contral Coast Valleys	3/24/2013	500	63 63	o o	0	3.9	33.3	60	20,9	5.2	100	58.8
	Cuyama	Central Coast Valleys	3/24/2013	600	83 (0	1	3.6	33.6	58	19.4	5	126	58
88	Сиуапа	Central Coust Valleys	3/24/2013	200	83 0	0	130	4	34.7	59	22	4.5	91	57.3
					110.565	i docendo		Arerages	34.0	58	20.6	5.0	Sussenses	A DE CONTRACTO A P
88	Cuyama	Central Coast Valleys	3/24/2013	800	83 0.0	0	531	4.4	42.9	46	23.8	5.2	72	56.6
	Cuysma	Central Coast Valleys		900			957	5	63.8	35	26.9	4.6	73	66.1
	Cuyama	Central Coast Volleys		1000		1	153?	5.7	60.4	32	30,5	4.2	82	58
	Duyama	Central Coast Valleys		1100	2		1829	4.8	65.2	21	24.8	3.4	29	68,8
1.1.1.1	Cuyama		3/24/2013	1200		in the second second second	1792	6.2	69.4	21	28.1	4.8	354	\$ 7.{
	Cuyama	Central Coast Valleys		1300			1789	6.(71.3	23	91.8	6.5	344	59.5
11111	Cuyama		3/24/2013	1400			1685	58	72.6	21	30.5	7.3	334	B1.4
1	Сцуалта		3/24/2013	1500			1479	5.8	72.7	21	30.6	9.7	359	63.
an in the second	Guyama	Central Coast Valleys	·	1600			1142	5.9	71.8	28	31.3	9	15	6:
	Cuyama		3/24/2013	1700	Ì	in the second	717	6.9	70.2	23	01.3	8.9	4	63.
	Сиунта	Central Coast Valleys	3/24/2013	1800		4 4 4 A A	279	6	57.4	26	31,4	7.2	3	67.
1.15	Сцуята	4	3/24/2013	1900		1	8	6.2	50.6	34	32.4	4.5	123	67.
1 C 1	Cuyama	Central Coast Valleys	3/24/2013	2000		:	- Di	6.2	56.7	40	32.4	5.7	140	67.
1.111	Cuynna	Central Coast Valleys		2100			C	5.0	51:9	43	28.9	4.4	177	67,
	Сиуатта		3/24/2013	2200		سيفيد سيبرد ومناقس وران	0)	5.4	48.8	46	28.9	3.5	145	68.
	Сцуата	Central Coast Valleys		2300	1	1 1 1	0	5.6	45,1	54	20.7	3.6	122	65,
	Cuyama	Central Goost Volleya	3/24/2013	2400		da a di kana da kana kana kana kana kana kana k	0	5.6	41.9	63	30	4.6	100	65.
	Cuyama	Central Coast Valleys	3/25/2013	100			8	5.5	414	61	29.2	5.6	102	84.
	Guyarna	2	3/25/2013	200			8	6.3	39,8	64	26.7	4,3	102	61.
	Guyama	Central Coast Valleya	3/25/2013	300			0	5.3	38.5	56	28.4	5.4)	101	62
	Cuyama		3/25/2013	400		1		δ.2	38.2	68	27.8	5.8	103	61
- C.	Cuysma	Central Coast Valleys		500		<u>.</u>		5	57.9	64	26.9	4,8	118	60
A. Standards	Cuysma	Central Coast Valleys	A CONTRACTOR OF A CONTRACTOR O	600		landra an	1	5	39.6	63	27.1	6.3	102	60
	Cuyama	Central Const Valleys		700		A A	144	5	59.7	60	27	5.9	111	59
	Cuyama	Central Coast Valleys		800	1		496	5.8	47	63	30.7	6.0	93 , 7	58
	Cuyama	Central Coast Valleys		900		1 f	676	¢	56	39	31.6	6.0	64	58.
1.1	Сиунта Сиунта	Central Coast Valleys	· · · · · · · · · · · · · · · · · · ·	1660			1235	5.5	64.7	27	29.7	4,5	106	5
	Cuyama		3/25/2013	1100	a dana a sa	است. است استراسی این این	1571	5.8	fi9.7)	24	30.9	3.5	95	58.
20		wanter when the				· · · · · · · · · · ·			72.1	20	29	3.9	55	59.4
	Cuyama	Central Coast Valleys	0/08/9049	1200:	84 D.C.	0	1434	5.4	jesti sette a sure					

8	8 Cuyama	Central Coast Valleys	3/25/2013	1400	84	0.02	0	894	6.8	71.6	26	34.8	8.8	352	62.3 Y
8	8 Cuyama	Central Coast Valleys	3/25/2013	1500	84	0.02	0	1242	6.9	72.7	25	35.1	7.5	19	63.6 Y
		and the second sec	a description of the second seco			and the second s				1000			and the second sec		64.7 Y
8	B Cuyama	Central Coast Valleys	3/25/2013	1600	84	0.02	0	970	6.7	73	24	34.4	8.7	117	
8	8 Cuyama	Central Coast Valleys	3/25/2013	1700	84	0.01	0	555	6.9	71.8	26	34.9	6.8	100	65.6 Y
8	8 Cuyama	Central Coast Valleys	3/25/2013	1800	RA	0	0	219	6.9	68.3	29	35.1	5.7	353	66.2 Y
-	-				1 1					100			the second secon		
8	8 Cuyama	Central Coast Valleys	3/25/2013	1900	84	0	0	9	8.2	64.1	40	39,3	6.1	284	66.5 Y
8	8 Cuyama	Central Coast Valleys	3/25/2013	2000	84	0	0	D	8.1	59,9	46	39	6.8	265	66.6 Y
8	8 Cuyama	Central Coast Valleys	3/25/2013	2100	RA	0	0	0	8	57.7	49	38.9	6.9	261	68.4 Y
1.1		1	10000 0 4 Call		1.51										- Andrewski -
8	8 Cuyama	Central Coast Valleys	3/25/2013	2200	84	0	0	0	7.8	54.4	54	38	4	268	66 Y
8	8 Cuyama	Central Coast Valleys	3/25/2013	2300	84	0	0	0	7.5	49.6	62	37	3.8	142	65.5 Y
8	6 Cuyama	Central Coast Valleys	3/25/2013	2400	84	0	0	0	7	48.1	66	35.3	3.9	123	64.9 Y
1.2			10.10 C		la se la secola de								-		
8	B Cuyama	Central Coast Valleys	3/26/2013	100	85	0	0	0	6,3	43.4	66	32.8	2.7	166	64,3 Y
8	6 Cuyama	Central Coast Valleys	3/26/2013	200	85	0	0	0	6.2	41.7	69	32.4	1.9	111	63.6 Y
8	B Cuyama	Central Coast Valleys	3/26/2013	300	85	0	0	0	6.3	41.1	72	32.6	4.4	135	62.8 Y
	S	and the second se	and the second sec							and the second se					C 100 / 1
8	B Cuyama	Central Coast Valleys	3/26/2013	400	85	0	0	0	6.1	39.5	74	31.8	2.6	124	62.1 Y
8	B Cuyama	Central Coast Valleys	3/26/2013	500	85	0	0	0	5.9	38.7	74	31.2	4.6	136	61.3
8	Cinama	A second s	3/26/2013	600	0.5	0	0	1	5.7	37.7	74	30.3	5.8	118	60.5
		the state of the s	111110 Con. 1010 March 1010	-	122								17-		
8	B Cuyama	Central Coast Valleys	3/26/2013	700	85	0	0	144	6	39.8	72	31.5	6.4	109	59.8
B	B Cuyama	Central Coast Valleys	3/28/2013	800	85	0.01	0	548	6.6	46.3	62	34.1	6.4	105	59.1
8	B Cuyama	Central Coast Valleys	3/26/2013	900	85	0.01	0	972	7.1	56.2	46	35.9	5.3	84	58.6
	Column		and the second sec	a second s	1							Long Land			
B	B Cuyama	Central Coast Valleys	3/26/2013	1000	85	0.02	O	1345	6,4	63.6	32	33	2,7	353	58.5
B	B Cuyama	Central Coast Valleys	3/26/2013	1100	85	0.02	0	1631	5.8	67.9	25	30.7	3.3	313	59
8	Cuyama	Central Coast Valleys	3/26/2013	1200	85	0.02	0	1790	5.2	70.5	20	27.9	5.2	328	60.2
1.1										224.4			6.5	344	61.9 Y
8		Central Coast Valleys	3/26/2013	1300		0.03	0	1819	5.5	72.4	20	29.2			
8	B Cuyama	Central Coast Valleys	3/26/2013	1400	85	0.03	0	1759	6.1	72.7	22	32.1	7.9	340	63.8 Y
8		Central Coast Valleys	3/26/2013	1500	85	0.02	0	1524	6.3	72.9	23	32.7	9.2	333	65.5 Y
-					-						25	34	11.5	343	67.2 Y
8	a a jana	Central Coast Valleys	3/26/2013	1600		0.02	0	1190	6.6	72.2					and the second second
8	B Cuyama	Central Coast Valleys	3/26/2013	1700	85	0.01	0	444	6.7	69.4	28	34.4	10.4	346	68.6 R
в	Cuyama	Central Coast Valleys	3/26/2013	1800	85	0	0	195	7.1	67	32	35.9	6.4	3	69.5 R
1.2	1	1.000						8	and the second s		37		3.4	256	69.9 R
8		State State State State	3/26/2013	1900	1.2.14	0	0		7.3	63.1		36.4			
8	B Cuyama	Central Coast Valleys	3/26/2013	2000	85	0	D	٥	7.8	59.6	45	38.3	4.7	272	69.8 R
8	B Cuyama	Central Coast Valleys	3/26/2013	2100	85	0	0	0	7.8	58.4	50	38.2	5.3	270	69.5 R
	- June	and the second se	3/26/2013	and the second sec		0		0	7.5	53.4	54	37.2	3.3	254	68.9 Y
8	B Cuyama	Central Coast Valleys	1000.04	2200	85	D	0	0	7.5	53.4	54	37.2	and the second se		
8	B Cuyama	Central Coast Valleys	3/26/2013	2300	85	0	0	0	7.3	49.7	60	36.3	3	190	68.2 Y
B	Cuyama	Central Coast Valleys	3/26/2013	2400	85	0	0	0	6.5	45.8	62	33.4	3	193	67.4 Y
	-	and the second se	and a start of			-					64	00.0	17	103	66.6 Y
8	Cuyama	Central Coast Valleys		100		O	0	0	6.4	44.7		33.3	1.7		
B	Cuyama	Central Coast Valleys	3/27/2013	200	86	0	0	0	7.2	46	68	36.2	2.6	109	65.8 Y
8	Cuyama	Central Coast Valleys	3/27/2013	300	86	0	0	0	7.1	45.5	69	35.8	4	112	65 Y
-													3.6	122	64.2 Y
B	Cuyama	The second	3/27/2013	400	86	0	0	0	6.7	42,9	71	34.1			
8	B Cuyama	Central Coast Valleys	3/27/2013	500	86	0	0	0	6.6	41.1	76	34	2.7	109	63.5 Y
8	Cuyama	Central Coast Valleys	3/27/2013	600	86	0	0	1	6.6	40.7	77	34	3.6	108	62.8 Y
8								142	7	42.3	76	35.3	4.6	97	62.1 Y
	Cuyama	Central Coast Valleys	2.2.7.3	700	00	0	0	142							
8	B Cuyama	Central Coast Valleys	3/27/2013	600	86	0	0	442	7.7	48.8	66	37.9	5.5	92	61.4 Y
8	Cuyama	Central Coast Valleys	3/27/2013	900	86	0.01	0	891	8.7	57	55	41)	4.2	98	60.9 Y
-	Cuyama	Central Coast Valleys	Contraction of the	1000	100	0.01	0	1214	9.7	61,7	52	43.7	4	59	60.7 Y
-	COLOR AL	1 3. P. C. S. S. S. S. P. P.			19.1										
8	Cuyama	Central Coast Valleys	3/27/2013	1100	86	0.02	0	1547	9.2	65.7	43	42.4	3.4	354	61.1 Y
8	Cuyama	Central Coast Valleys	3/27/2013	1200	86	0.02	0	1633	9	67.5	39	41.9	4.5	298	62,1 Y
8			3/27/2013	1300	0.0	0.00	0	1530	8.9	68.8	37	41.5	7	294	63.8 Y
	Cuyama	Contral Codat Valleya	Strituis			0.02			and the second se						1000
8	Cuyama	Central Coast Valleys	3/27/2013	1400	86	0.02	0	1491	8,9	69	37	41.6	8	294	67.7 R
8	Cuyama	Central Coast Valleys	3/27/2013	1500	86	0.01	0	784	9	68.8	37	41.7	8.1	300	65.9 Y
8	Cuyama	Central Coast Valleys	3/27/2013	1600	00	0.02	0	1362 Y	9.3	70.1	37	42.8	8.2	296	66.8 Y
					1111	0102									
8	Cuyama	Central Coast Valleys		1700	86	0.01	0	945 Y	9,7	68,3	41	43.6	6.1	297	67.5 Y
8	Cuyama	Central Coast Valleys	3/27/2013	1800	86	0	0	351	9.4	65.4	44	43	7.1	293	68.1 Y
8	Cuyama	Central Coast Valleys	3/27/2013	1900	86	0	0	15	9.5	60.4	53	43.3	6.5	278	68.4 Y
	223		a second s						and the second s			100			
B	Cuyama	Central Coast Valleys	3/2//2013	2000		0	0	0	9.7	56.7	62	43.8	7.4	258	68.5 Y
8	Cuyama	Central Coast Valleys	3/27/2013	2100	86	0	0	0	10	54.1	70	44.5	7	261	68.1 Y
8	Cuyama	Central Coast Valleys	3/27/2013	2200	86	0	0	0	10	51.7	76	44.4	3.8	258	67.6 Y
								0				44)	2.5	292	67 Y
B			3/27/2013	2300		0	0		9.8	49.7	81	and the second s			
8	Cuyama	Central Coast Valleys	3/27/2013	2400	86	0	0	0	8.8	45.8	84	41.2	3.4	192	66.2 Y
B	Cuyama	Central Coast Valleys	3/28/2013	100	87	0	0	0	8.1	43,5	84	39.1	2.5	215	65.5 Y
B	Cuyama	Central Coast Valleys	3/28/2013	200	87	0	0	0	8.2	43,4	86	39.4	3.9	130	64.7 Y
	in the second second	and the second se		in the second						100		39		131	64 Y
84		Central Coast Valleys	100 C	300	1	0	0	0	8.1	42.8	86		4.1		and the second sec
8	Cuyama	Central Coast Valleys	3/28/2013	400	87	0	0	0	7.8	41.8	86	38	4	107	63.2 Y
B	Cuyama	Central Coast Valleys	3/28/2013	500	87	0	0	D	7.5	40.8	86	37	4.4	103	62.5 Y
B			1000000	600		0	0	1	7.4	40.6	86	36.7	5	109	61.8 Y
		Central Coast Valleys							and the second s		and the second s				
80	Cuyama	Central Coast Valleys	3/28/2013	700	87	0	0	143	7.7	41.8	85	37.7	6.1	113	61 Y
88	Cuyama	Central Coast Valleys	3/28/2013	800	87	0	0	521	8.7	48,4	75	41	6.2	103	60.4
BE		and the second se	3/28/2013	900		0.01	0	971	9.7	57.1	61	43.8	5.4	86	59.9
-		1200							and the second se	and the second s		and the second second			
BE	Cuyama	Central Coast Valleys	3/28/2013	1000	87	0.02	0	1311	9,9	62.5	51	44.3	3.7	80	59.8
BE	Cuyama	Central Coast Valleys	3/28/2013	1100	87	0.02	0	1516	9.2	67.4	40	42.5	3.9	308	60.3 Y
8		the second se	3/28/2013	1200	_	0.02	D	1371	9.4	69,3	38	42.9	5.3	313	61.4 Y
		the second se						the second se	and the second sec			The second second			
BE	Cuyama	Central Coast Valleys	3/28/2013	1300	87	0.02	O	1468	9.7	70.1	39	43.8	8.6	336	62.9 Y
86	Cuyama	Central Coast Valleys	3/28/2013	1400	87	0.01	D	711	9.7	68.7	40	43.7	9.1	348	64.3 Y
86		ST MODEL ST ST ST ST ST	3/28/2013	1500		0.01	0	343	9.2	67.5	40	42.3	7.3	309	65.6 Y
										10000					
BE		COROLD CHENRY, CALLER	3/28/2013	1600	87	0.01	0	547	9.2	66.2	42	42.3	6.4	78	66.4 Y
86	Cuyama	Central Coast Valleys	3/28/2013	1700	87	0.01	0	362	9.1	68.9	40	42.1	5.3	106	66.9 Y
88	1	Central Coast Valleys	3/28/2013	1800		0	0	123	11	60.5	61	47.1	7.9	279	67 Y
	the second second	a second s											6	278	67 Y
BE			3/28/2013	1900		0	0	18	11	58.1	67	47.1			
88	Cuyama	Central Coast Valleys	3/28/2013	2000	87	0	0	0	10.8	55.7	71	46.5	4.7	276	66.9 Y
88	Cuyama	Central Coast Valleys	3/28/2013	2100	87	0	0	0	10	51.6	77	44.6	3.5	246	66.6 Y
		Contraction and the second second	1.								78	43.2	2.5	169	66.1 Y
	Cuyama		3/28/2013	2200		0	0	0	9.5	49.8					
BE		Central Coast Valleys	3/28/2013	2300	87	0	0	0	8.7	46.4	81	40.9	2.9	150	65.5 Y
	Cuyama	Contract Contracted I			100					400	00	40.0		140	64.9 Y
BE			3/28/2013	2400	87	0	0	0	8.5	45.5	82	40.3	4,1	140	04.8
88 88 88	Cuyama	Central Coast Valleys										a line and a second	4.1		
88 68 88 68	Cuyama	Central Coast Valleys Central Coast Valleys	3/28/2013 3/29/2013 3/29/2013	2400 100 200	88	0	0	0	8.5 8.3 7.9	45.5	84 83	39.6		120	64.1 Y 63.4 Y

8	8 Cuyama	Central Coast Valleys	3/29/2013	300	88	0	0	0	7.8	42.5	84	38.1	4.9	124	62.7 Y
8	8 Cuyama	the second se	and the second second	400	88	0	0	0	7.6	41.7	85	37.6	4.8	118	62 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	500	88	0	0	0	7.6	41.3	86	37.4	5.1	103	61.4 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	600	88	0	0	3	7.3	40.2	87	36.6	4.4	117	60,7
	8 Cuyama		3/29/2013	700		0	0	164	7.8	42.1	85	38	5.2	104	60.1
8	8 Cuyama		1 million	800	88	0.01	0	586	8.9	49.7	73	41.5	4.8	96	59.5
10.00	8 Cuyama	-	and the second sec	900		0.01	0	1003	9.2	58.8	54	42.2	4.9	123	59.1
1			-	1000		0.02	0	1377	9.5	66.8	42	43.3	3.6	56	59,2
1			1.		1.577									283	59.8
1	8 Cuyama			1100		0.02	0	1648	9.3	71	36	42.5	3.5		
in the second	8 Cuyama		1	1200		0.02	0	1807	8.8	74.4	30	41.1	3.6	11	61 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	1300	88	0.03	0	1825	8.3	76.5	27	39.6	5.8	113	62.7 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	1400	88	0.02	0	1761	8.5	77.9	26	40.4	4.5	49	64.6 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	1500	88	0.01	0	908	8.5	76.4	27	40.2	5.5	283	66.3 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	1600	88	0.02	0	934	6.9	75.2	23	34.9	10	221	67.9 R
8	8 Cuyama	Central Coast Valleys	3/29/2013	1700	88	0.01	0	505	6.5	73.7	23	33.5	9.7	230	69.1 R
8	8 Cuvama	Central Coast Valleys	3/29/2013	1800	88	0.01 Y	0	347	6.1	73.2 Y	22 Y	32.1 Y	7.1	217	69.7 R
8	1			1900		0 Y	0	11	7.2	68.7 Y	32 Y	36 Y	6	234	70 R
	G. 4			2000		0	0	0	10.8	61.5	58	46.7	4.5	269	69.9 R
8	1	Central Coast Valleys	1 - Contractor	2100		0	0	0	10.3	57.4	64	45.4	3.1	199	69.6 R
-		and a second second								-	66	42.5	2.6	147	69.1 R
8	- oujuma	Central Coast Valleys		2200		0	0	0	9.2	53.5					
8	8 Cuyama		1.	2300	88	0	0	0	7.2	53.4	52	36.2	2.7	206	68,5 Y
8	8 Cuyama	Central Coast Valleys	3/29/2013	2400	88	0	0	0	7.3	53.1	53	36.4	2.3	223	67.8 Y
8	8 Cuyama	Central Coast Valleys	3/30/2013	100	89	0	0	0	7.9	53.5	56	38.4	2.4	255	67.1 Y
8	8 Cuyama	Central Coast Valleys	3/30/2013	200	89	0	0	0	8,8	53.3	63	41.1	2.1	252	66.5 Y
8	8 Cuyama	Central Coast Valleys	3/30/2013	300	89	0	0	0	9.2	52.6	68	42.4	2.3	288	65.9 Y
8		Central Coast Valleys		400	89	0	0	0	9.3	50.3	75	42.5	2.6	176	65.3 Y
8	1	Central Coast Valleys		500		0	0	0	9.2	48.8	78	42.2	2.7	177	64.7 Y
B		Central Coast Valleys		600		0	0	3	8	44.8	79	38.7	3.3	167	64.2 Y
8		Central Coast Valleys		700	_	0	0	192	8.1	46,7	75	39.1	2.3	246	63.6 Y
	1								a summer and a summer			and the second s		46	63.1 Y
8	a a junio	Central Coast Valleys		800		0.01	0	688	9.6	54.4	66	43.5	2.6		and the second se
8		Central Coast Valleys		900		0.01	0	1127	9,4	62.3	49	42.8	2.3	232	62.7 Y
B	8 Cuyama	Central Coast Valleys		1000	1.11	0.02	0	1520	9	66.9	40	41,7	4.9	287	62.9 Y
8	8 Cuyama	Central Coast Valleys	3/30/2013	1100	89	0.02	0	1666	8.5	69.4	35	40.4	5.7	297	63.6 Y
8	8 Cuyama	Central Coast Valleys	3/30/2013	1200	89	0.03	0	1749	8	73	29	38.7	4.6	292	64.8 Y
B	B Cuyama	Central Coast Valleys	3/30/2013	1300	89	0.03	0	1770	7.9	76.3	26	38.5	8.9	232	66.4 R
8	8 Cuyama	Central Coast Valleys	3/30/2013	1400	89	0.02	0	1247	7.6	78.5	24	37.4	13,2	214	68 R
8	5	Central Coast Valleys	3/30/2013	1500		0.03	0	1664 Y	7.8	78.2	24	38.2	12.2	213	69.4 R
	B Cuyama	Central Coast Valleys	14000-011	1600	-	0.02	0	977	8	74.9	27	38.7	13.1	219	70.4 R
-	2									1001	28	37.2	10.9	214	71.3 R
B		Central Coast Valleys	100002-011	1700	1.1	0.01	0	415	7.5	72.6				208	71.8 R
8		Central Coast Valleys	la secondaria de la sec	1800		0.01	٥	358	7.1	70.5	28	35.9	8.8		
8	B Cuyama	Central Coast Valleys		1900	_	0	0	15	6.6	65.6	31	33.8	6.6	214	71.9 R
B	8 Cuyama	Central Coast Valleys	3/30/2013	2000	89	0	0	D	7.3	61.6	39	36.6	6.3	251	71.8 R
8	B Cuyama	Central Coast Valleys	3/30/2013	2100	89	0	0	0	8.3	59.4	48	39.7	6.6	263	71.4 R
8	B Cuyama	Central Coast Valleys	3/30/2013	2200	89	0 Y	0	0	8,5	59.1 Y	50 Y	40.4 Y	9.8	232	70.8 R
B	B Cuyama	Central Coast Valleys	3/30/2013	2300	89	0 Y	0	0	9.1	58.8 Y	54 Y	42.1 Y	5.7	247	70.2 R
8	B Cuyama	Central Coast Valleys	3/30/2013	2400	89	0 Y	0	0	9.4	57.7 Y	58 Y	43 Y	4.9	237	69.5 R
B	B Cuyama	Gentral Coast Valleys		100	90	0 Y	0	0	9.6	56.4 Y	62 Y	43.3 Y	6.4	210	69 R
8		Central Coast Valleys	Contraction in the	200	90	0	0	0	9.1	53.4	65	42	3	136	68.4 R
8	-					0		0		53.5	68	43.2	2.6	255	67.8 R
		Central Coast Valleys Central Coast Valleys	and the second sec	300			0		9.5	52		43	2.7	164	67.2 Y
8				400		0	0	0	9,4	1000	71	and the second s			The second second
8	Cuyama	Central Coast Valleys		500	90	0	D	0	8.7	48.7	74	40.8	3.7	175	66.5 Y
8	Cuyama	Central Coast Valleys		600		0	0	2	9.3	61.5	71	42.6	3.3	213	65.9 Y
8	Cuyama	Central Coast Valleys	3/31/2013	700	90	0	0	140	9.3	50.2	75	42.8	4.2	122	65.3 Y
8	Cuyama	Central Coast Valleys	3/31/2013	800	90	0	0	178	10.6	54.1	74	46.1	5.7	150	64.7 Y
8	Cuyama	Central Coast Valleys	3/31/2013	900	90	0.01	0	680	11.8	55,4	79	49	3.9	240	64.3 Y
8	Cuyama	Central Coast Valleys	3/31/2013	1000	90	0.01	0	805	11.9	56.6	76	49.2	4.4	308	64 Y
8		Central Coast Valleys		1100		0.01	0	1011	10.9	58.1	66	46.7	4.7	260	64,4 Y
B	2	Central Coast Valleys	CO. 100.1	1200		0.02	0	1274	11.2	59.6	64	47.5	6.1	213	64.5 Y
8		Central Coast Valleys		1300		0.01	0	992	10.7	60.9	59	46.4	6,1	246	65.7 Y
B		Central Coast Valleys	and the second second		_			919	10.7	58.9	71	49.3	5.5	273	S
		A STAR OF A STAR	10 X X X	1400		0.01	0.01		and the second se			49.9	8.1	288	s
81		Central Coast Valleys		1500		0.01	0	641	12.2	57.4	76				68.7 R
8	+	Central Coast Valleys		1600		0.01	0	438	11.3	57.9	89	47.8	5.2	277	
B	1.1.1.1	Central Coast Valleys	233031	1700		0	0	389	10.7	59	63	46.3	5.5	305	67 Y
B	1.10	Central Coast Valleys	3/31/2013	1800		0.01	0	394	10.1	59.1	59	44.8	7.2	290	67 Y
B	Cuyama	Central Coast Valleys	and a second	1900	90	0	0	22	9.5	65.6	63	43.2	5.7	294	67 Y
B	Cuyama	Central Coast Valleys	to an annual a	2000	90	0	0	0	9.4	52.4	70	42.9	6.8	258	66.8 Y
84	Cuyama	Central Coast Valleys	3/31/2013	2100	90	0	0	0	9.1	50.2	74	42.2	4.2	263	66.4 Y
B	Cuyama	Central Coast Valleys	3/31/2013	2200	90	0	0	0	8.8	48.1	77	41.3	4.6	257	65.8 Y
B	Cuyama	Central Coast Valleys	3/31/2013	2300	90	0	0	0	8.7	47.2	78	40.8	3.6	257	65.2 Y
80		Central Coast Valleys		2400	_	0	0	0	8.1	43.8	83	38.9	3.1	219	64.5 Y
68		Central Coast Valleys	4/1/2013	100	_	0	0	0	7.7	41.8	86	37.8	2.4	134	63.8
80		Central Coast Valleys		200		0	0	0	7.3	39.7	88	36.5	3,1	164	63
80		Central Coast Valleys		300		0	0	0	7.4	39.5	89	36.6	3.7	175	62.3
	1000	- I - man - man - man - man	4/1/2013		-							200	3.7	122	61.6
88		Central Coast Valleys	4/1/2013	400		0	0	0	7.1	38.8	89	35.9			the second se
BE		Central Coast Valleys	4/1/2013	500	- 21	0	0	0	7.7	40.7	89	37.7	4.7	110	60.9
BE	Cuyama	Central Coast Valleys	4/1/2013	600	91	0	0	3	7.5	40.3	88	37	4.6	104	60.2
86	Cuyama	Central Coast Valleys	4/1/2013	700	91	0	0	118	7.8	41.2	88	38	3.3	96	59.6
88	Cuyama	Central Coast Valleys	4/1/2013	800	91	0	0	490	8.6	45.3	84	40.7	3.5	90	59.1
88	Cuyama	Central Coast Valleys	4/1/2013	900	91	0.01	0	954	9.3	52.4	69	42.5	4.1	86	58.8
88	1.5	Central Coast Valleys	4/1/2013	1000	1000	0.02	0	1438	9.1	56.5	58	42.1	4.2	284	58.7
BE	1	Central Coast Valleys	4/1/2013	1100	10081	0.02	0	1720	8.9	69.3	52	41.6	5.8	264	59.3
BE	0			1200		0.02		1982	8.7	62	46	40.8	5.6	304	50.4
88		Central Coast Valleys	4/1/2013		L	- (10) - 10 - 10	0						6.8	353	62
	Cuyama	Central Coast Valleys	4/1/2013	1300	-	0.02	0	1671	8.9	62.8	46	41.5			
88	Cuyama Cuyama	Central Coast Valleys	4/1/2013	1400	2.1	0.02	0	1551 1755 Y	8.6	64.3 66.4	42 39	40.7	5.6	320	63.6

88	Cuyama	Central Coast Valleys	4/1/2013	1600 \$	0.02	0	1410 Y	8.9	65.8	41	41.5	7.6	306	66.5
68	Cuyama	Central Coast Valleys	1.	1700 9	0.01	R 0	1062 R	9.4	65.1	44	42.9	7.7	297	67.9
88	Cuyama	Central Coast Valleys		1800 9	0.01	0	293	10.1	61.3	55	44.8	8.5	288	68.9
88	Cuyama	Central Coast Valleys		1900 9	1 0	0	15	10.2	58.9	64	45	9.3	284	69.5
88	Cuyama	Central Coast Valleys		2000 9		0	0	10.2	53.7	73	45.1	8.2	276	69.7
88	Cuyama	Central Coast Valleys	and the second second	2100 9	2	0	0	10	50.8	79	44.6	6.4	283	69.5
88	Cuyama	Central Coast Valleys	4/1/2013		1 0	0	0	9.7	48,6	83	43.8	4	263	69
88	Cuyama	Central Coast Valleys	4/1/2013	2300 9		0	0	9.2	46.5	86	42.4	3.4	247	68.3
88	Cuyama	Central Coast Valleys	4/1/2013	2400 9			0	8.8	45.1	86	41.1	1.6	170	67.6
88	Cuyama	Central Coast Valleys	4/2/2013	100 9			0	8.5	44.2	87	40.4	1	88	68.7
88	Cuyama	Central Coast Valleys	4/2/2013	200 9		0	O	8.3	43.2	87	39.8	1.7	146	65.9
88	Cuyama	Central Coast Valleya	4/2/2013	300 9	12 0	0	0	8.1	42.1	89	39	2	139	65.1
88	Cuyama	Central Coast Valleys	4/2/2013	400 5	12 0	0	0	9	44.7	89	41.7	2.6	162	64.3
88	Cuyama	Central Coast Valleys	4/2/2013	500 9	2 0	0	0	9.6	47	88	43.5	2.6	78	63.6
88	Cuyama	Central Coast Valleys	4/2/2013	600 9	12 0	0	2	10.5	49.8	86	45.8	4.8	16	63
88	Cuyama	Central Coast Valleys	4/2/2013	700 9	2 0	0	65	10.8	51.2	84	46.5	7.1	10	62.5
88	Cuyama	Central Coast Valleys	4/2/2013	800 9	2 0	0	134	10.8	51.5	83	48.8	5.5	6	62
88	Cuyama	Central Coast Valleys	4/2/2013	900 9	0.01	0	630	10.9	53.4	78	46.9	5.9	105	61.8
68	Cuyama	Central Coast Valleys	4/2/2013	1000 9	2 0.01	0	1196	10.7	56.5	69	46.4	5.1	105	61.6
88	Cuyama	Central Coast Valleys	4/2/2013	1100 9	2 0.02	0	1823	10.5	60.1	59	45,9	5.8	128	61.8
88	Cuyama	Central Coast Valleys	4/2/2013	1200 9	2 0.02	0	1873	10,4	63,1	53	45.7	6.6	101	62.4
88	Cuyama	Central Coast Valleys	4/2/2013	1300 \$	0.02	0	1875	9.8	65.2	46	44.1	5.3	6	63.6
88	Cuyama	Central Coast Valleys	4/2/2013	1400 5	2 0.02	0	1766	9.8	66.8	43	43.9	8.2	348	65
88	Cuyama	Central Coast Valleys	4/2/2013	1500 9	2 0.02	0	1524	9	67.3	40	41.9	9.5	346	66.5
68	Cuyama	Central Coast Valleys	4/2/2013	1600 5	2 0.02	0	1203	9	66.8	40	41.8	10.6	346	68
88	Cuyama	Central Coast Valleys	4/2/2013	1700 5	2 0.01	0	771	8.9	65.6	41	41.5	10.1	3	69.4
88	Cuyama	Central Coast Valleys	4/2/2013	1800 9	2 0	0	311	8.6	63.8	43	40.6	9.1	6	70.3
88	Cuyama	Central Coast Valleys	4/2/2013	1900 9	2 0	0	13	8,8	59.5	51	41.3	6.1	54	70.7
88	Cuyama	Central Coast Valleys	4/2/2013	2000 9	2 0	0	0	9	55.4	60	41.8	5.3	136	70.6
88	Cuyama	Central Coast Valleys	4/2/2013	2100 9	2 0	0	0	8.5	53	62	40.3	5.2	162	70.2
88	Cuyama	Central Coast Valleys	4/2/2013	2200 9	2 0	0	0	8,1	50.5	65	39.2	3.7	123	69.6
68	Cuyama	Central Coast Valleys	4/2/2013	2300 9	2 0	0	0	8.3	46.6	76	39.6	3.3	101	68.9
88	Cuyama	Central Coast Valleys	4/2/2013	2400 9	2 0	0	0	8.2	44.9	81	39.5	2.1	115	68.1
88	Cuyama	Central Coast Valleys	4/3/2013	100 9	3 0	0	D	7.9	43.9	81	38.4	2.2	139	67.3
88	Cuyama	Central Coast Valleys	4/3/2013	200 9	3 0	0	0	7.4	42.4	81	36.9	2.5	87	66.4
88	Cuyama	Central Coast Valleys	4/3/2013	300 6	3 0	0	0	7.6	41.9	84	37.4	3.7	111	65.6
88	Cuyama	Central Coast Valleys	4/3/2013	400 9	3 0	0	0	7.8	42.3	84	38	4.5	90	64.8
88	Cuyama	Central Coast Valleys	4/3/2013	500 9	3 0	0	0	7.5	41.3	85	37.1	3.7	113	64
88	Cuyama	Central Coast Valleys	4/3/2013	600 5	3 0	0	6	7.3	40,6	85	36.5	5.1	106	63,3
88	Cuyama	Central Coast Valleys	4/3/2013	700 5	3 0	0	205	7.6	42.3	83	37.5	5.7	107	62.5
68	Cuyama	Central Coast Valleys	4/3/2013	800 9	3 0.01	0	649	8.7	49.8	71	40.8	6.3	92	61.9
88	Cuyama	Central Coast Valleys	4/3/2013	900 9	3 0.01	0	951	9.4	58.2	57	42.9	4,4	85	61.4
88	Cuyama	Central Coast Valleys	4/3/2013	1000 9	3 0.02	0	1425	9.6	63.8	47	43.3	3.3	94	61.4
88	Cuyama	Central Coast Valleys	4/3/2013	1100 9	3 0.02	0	1679	9.5	67,8	41	43.3	3.7	127	62
88	Cuyama	Central Coast Valleys	4/3/2013	1200 9	3 0.02	0	1627	9,5	70.5	37	43.2	4.9	118	63.1
88	Cuyama	Central Coast Valleys	4/3/2013	1300 9	3 0.03	0	1914	9.9	73.3	35	44.2	4.2	337	64,6
88	Cuyama	Central Coast Valleys	4/3/2013	1400 9	3 0.02	0	1757	9.8	75,2	33	44	5.5	100	66.2
88	Cuyama	Central Coast Valleys	4/3/2013	1500 9	3 0.02	0	1479	9,7	78	29	43.6	4.1	75	67.8
88	Cuyama	Central Coast Valleys	4/3/2013	1600 9	3 0.02	D	1046	10.3	77.3	32	45.4	7.9	87	69.4 Y
88	Cuyama	Central Coast Valleys	4/3/2013	1700 9	3 0.01	D	603	10.5	74.8	36	45.8	6.9	17	70.7 Y
88	Cuyama	Central Coast Valleys	4/3/2013	1800 9	3 0	0	247	11.2	71.8	42	47.5	6.2	119	71.5 Y
88	Cuyama	Central Coast Valleys	4/3/2013	1900 9	3 0	0	23	10.6	68.1	45	46	3.8	159	72 Y
88	Cuyama	Central Coast Valleys	4/3/2013	2000 9	3 0	0	0	10.7	63.2	54	48.4	5.3	272	72 Y
88	Cuyama	Central Coast Valleys	4/3/2013	2100 9	3 0	0	0	10.6	60	60	46)	4.8	277	71.7 Y
88	Cuyama	Central Coast Valleys	4/3/2013	2200 9	3 0	0	0	10.2	57.6	63	45	3.4	268	71.3 Y
88	Cuyama	Central Coast Valleys	4/3/2013	2300 9	3 0	0	0	9.7	53.3	70	43.7	4	131	70.7 Y
-21	Cuyama	Central Coast Valleys	4/3/2013	2400 9	3 0	0	a	9.3	50.8	73	42.5	4.1	173	70
-	Cuyama	Central Coast Valleys	4/4/2013	100 9	1	0	0	8.3	48.4	72	39.8	2,3	245	69.3
- 22	Cuyama	Central Coast Valleys	4/4/2013	200 9		0	0	8.3	47.1	75	39.7	2.6	172	68.5
	Cuyama	Central Coast Valleys	and the second sec	300 9		0	0	8.5	47.4	76	40.2	2.9	142	67.7
	Cuyama	Central Coast Valleys	4/4/2013	400 9	4 0	0	0	7.8	48	74	38.2	1.8	141	67
88	Cuyama	and the second se	4/4/2013	500 9	4 0	0	0	8.6	46.3	80	40.5	2.7	123	66.2
12	Cuyama	Central Coast Valleys	4/4/2013	600 9	4 0	0	1	9.2	49.7	75	42.3	3.1	115	65.5
	Cuyama	Central Coast Valleys	4/4/2013	700 9	4 0	0	30	9	50.5	72	41.9	1.6	316	64.9
68	Cuyama	Central Coast Valleys	4/4/2013	800 9	4 0	0	121	9.4	51.3	73	42.9	2.5	291	64.4
	Cuyama	Central Coast Valleys	4/4/2013	900 9	4 0	0	512	10.1	55.1	68	44.9	2.5	28	64
88	Cuyama	Central Coast Valleys	4/4/2013	1000 9	4 0.01	0	704	10.3	59.4	60	45.4	2.7	67	63.7
88	Cuyama	Central Coast Valleys	4/4/2013	1100 9	4 0.02	o	1704	11	64.2	53	47	3.8	81	63.8
	Cuyama	Central Coast Valleys	4/4/2013	1200 9	4 0.02	0	1875	12	68.1	51	49.4	4.8	310	64.2
88	Cuyama	Central Coast Valleys	4/4/2013	1300 9	4 0.01	0	1009	12	68.6	50	49.4	6.7	334	65.4
100	Cuyama	Central Coast Valleys	4/4/2013	1400 9		0	1319	11.6	69.7	47	48.5	6.4	353	66.8
88	Cuyama	Central Coast Valleys	4/4/2013	1500 9	4 0.01	0	851	11.3	69.8	45	47.7	7.7	20	68
88	Cuyama	Central Coast Valleys	4/4/2013	1600 9	4 0	0	230	10.9	68.1	45	48.7	4	341	69.2 Y
100	Cuyama	Central Coast Valleys	4/4/2013	1700 9	4 0.01	0	435	10.7	68.6	45	46.3	6.7	327	69.9 Y
88	Cuyama	Central Coast Valleys	4/4/2013	1800 9	4 0.01	0	423	11.2	67.6	49	47.6	7.1	352	70.3
1	Cuyama	Central Coast Valleys	4/4/2013	1900 9	4 0	0	41	11.9	62.9	61	49.1	6.4	287	70.5
68	Cuyama	Central Coast Valleys	4/4/2013	2000 9	4 0	0	0	12	58.6	71	49.4	8.5	275	70.5
-	Cuyama	Central Coast Valleys	4/4/2013	2100 9	1	0	0	12.1	55.9	79	49.5	8.1	277	70.3
10.3	Cuyama	Central Coast Valleys	4/4/2013	2200 9		0	0	11.9	54.8	81	49.1	6,4	276	69.9
	Cuyama	and the second second	4/4/2013	2300 9		0	0	11.8	54.1	62	48.8	5.3	280	69.4
	Cuyama	Central Coast Valleys	4/4/2013	2400 9	4 0	0	0	11.7	53.1	85	48.6	3.3	275	68.8
-	Cuyama	Central Coast Valleys	4/5/2013	100 9		0	0	11.8	52.8	87	49	3.6	271	68.3
72.0	Cuyama		4/5/2013	200 9		0	0	11.7	52.3	88	48.7	1.8	320	67.7
	Cuyama	Central Coast Valleys	4/5/2013	300 9		0	0	11.7	52	88	48.6	1.4	303	67.2
68														

B Cuyama	Central Coast Valleys	4/5/2013	500	95 0	0	0	11.8	52.9	86	49	2	143	66
S Cuyama	Central Coast Valleys	4/5/2013	600	95 0	0	2	11.8	53.2	86	49	1.9	32	65
8 Cuyama	Central Coast Valleys	4/5/2013	700	95 0	0	61	11.9	53.7	85	49.2	3.5	88	65
8 Cuyama	Central Coast Valleys	4/5/2013	800	95 0	0	175	12.3	54.4	85	50	7.5	86	65
8 Cuyama	Central Coast Valleys	4/5/2013	900	95 0	0	246	12.3	52.9	90	50.1	9	88	64
8 Cuyama	Central Coast Valleys	4/5/2013	1000	95 0	0	410	12.5	53/1	91	50.4	7.B	96	64
8 Cuyama	Central Coast Valleys	4/5/2013	1100	95 0.01	0	641	12,5	54.9	85	50.5	4	111	64
8 Cuyama	Central Coast Valleys	4/5/2013	1200	95 0.02	0	1726	12.4	60	70	50.2	4.1	132	64
8 Cuyama	Central Coast Valleys	4/5/2013	1300	95 0.02	0	1859	12.1	63	61	49.5	8.4	113	64
B Cuyama	Central Coast Valleys	4/5/2013	1400	95 0.02	0	1551	11.6	64.2	57	48.5	7.1	120	65
8 Cuyama	Central Coast Valleys	4/5/2013	1500	95 0.01	0	1033	11.8	64.2	57	48.8	8.7	76	66
8 Cuyama	Central Coast Valleys	4/5/2013	1600	95 0.01	0	615	11.4	62.8	59	48.1	10	25	6
8 Cuyama	Central Coast Valleys	4/5/2013	1700	95 0.01	0	525	11.3	61.9	60	47.9	7.7	5	6
8 Cuyama	Central Coast Valleys	4/5/2013	1800	95 0	0	274	11.1	60.8	61	47.3	5	6	6
8 Cuyama	Central Coast Valleys	4/5/2013	1900	95 0	0	16	11.1	57.8	68	47.2	5.5	77	-
8 Cuyama	Central Coast Valleys	1		95 0		0	10.9	54.5	75	46.8	4.4	113	
8 Cuyama				95 0	0	0	10.5	52.3	78	45.7	5.2	146	6
B Cuyama	Central Coast Valleys		2200	95 0	0	0	10,1	51.8	n	44.9	3.7	174	6
8 Cuyama	and the second se		in manual second	95 0	0	ò	10	51.3	77	44.4	2,6	63	6
B Cuyama	Central Coast Valleys	-		95 0	0	0	9.4	48.2	82	42.9	2.5	107	6
8 Cuyama	the second se	and the second sec		96 0	0	0	9,2	47.3	83	42.5	2,5	195	6
B Cuyama	Central Coast Valleys	1	200	96 0	0	0	8.6	45.4	83	40.6	2,3	173	6
1					0	0	9.7	48	85	43.6	4.8	126	6
	Central Coast Valleys Central Coast Valleys	A Section of the			0	0	9.7	48	85	43.8	5.1	128	6
		1		96 0							6,4	20	6
Cuyama	Central Coast Valleys	A COLORING CONTRACTOR		96 0	0	0	10.7	51.8	81	46.3			
B Cuyama	_			96 0	0	2	10.5	51	82	45.7	4.7	79	6
Cuyama				96 0	0	111	10.6	51	83	48.2			
Cuyama	Central Coast Valleys			96 D	0	275	10.6	52.3	79	46.1	5.2	119	6
Cuyama	Central Coast Valleys	4/6/2013		96 0.01	0	640	10.2	53.8	72	45.1	5.5	12	6
Cuyama	Central Coast Valleys			96 0.02	0	1315	10.1	58.7	64	44.8	10.6	122	6
Cuyama				96 0.02	0	1561	10.1	58.4	61	44.8	10.2	124	6
Cuyama	the contraction and a -	1.		96 0.02	0	1846	10	61.6	54	44.5	7.9	125	6
Cuyama	Central Coast Valleya	100000	1	96 0.02	0	1852	9.7	64.1	48	43.8	5.9	68	6
Cuyama	Central Coast Valleys	4/6/2013	1400	96 0.02	0	1747	8.6	68.6	39	40.7	7.2	359	6
Cuyama	Central Coast Valleys	4/6/2013	1500	96 0.02	0	1481	8.6	68.1	37	40.7	12.3	353	6
Cuyama	Central Coast Valleys	4/6/2013	1600	96 0.02	0	1164	8	87.4	35	38.8	13.5	351	6
Cuyama	Central Coast Valleys	4/6/2013	1700	96 0.01	0	693	7.7	66.2	35	37.7	12.7	0	6
Cuyama	Central Coast Valleys	4/6/2013	1800	96 0.01	0	345	7.8	64.5	38	38.1	10.6	351	7
Cuyama	Central Coast Valleya	4/6/2013	1900	96 0	0	17	8	61.3	43	38.8	6.3	353	7
Cuyama	Central Coast Valleys	4/6/2013	2000	96 0	0	o	8.7	56.4	56	41	3.6	72	7
Cuyama	Central Coast Valleys	4/6/2013	2100	96 0	0	0	8.8	54.3	61	41.1	4.4	117	
B Cuyama	Central Coast Valleys	4/6/2013	2200	96 0	0	0	8.7	51.5	67	40.9	4.1	134	6
Cuyama	Central Coast Valleys	4/6/2013	2300	96 0	0	0	8.2	50.4	66	39.4	3.4	205	6
Cuyama	Central Coast Valleys	4/6/2013	1	96 0	0	0	9.1	54.3	63	42.2	3.3	297	6
B Cuyama	Central Coast Valleys	11,000,71,71	100		0	0	11.3	55.1	76	47.8	7.9	345	6
Cuyama	Central Coast Valleys			97 0	Q	0	10.7	53.5	77	46.4	7.2	352	6
B Cuyama	Central Coast Valleys	-	300		0	0	10.2	52	77	45	5.2	14	6
B Cuyama	Central Coast Valleys		1	97 0	0	0	9,9	50.8	78	44.2	5.6	73	6
Cuyama	Central Coast Valleys		500		0	0	9.8	50.7	77	43.9	4.8	104	6
Cuyama	Central Coast Valleys	and the second	600		0	5	9.4	50.8	75	43	5.5	82	6
Cuyama	Central Coast Valleys	4/7/2013		97 0	0	135	9.8	50.9	77	441	5.1	130	6
	Central Coast Valleys						10	62.3	75	44.5	6.4	125	6
Cuyama	Central Coast Valleys	4/7/2013	800	and the second second	0	324	9.3	62.3	65	42.8	5.4	21	5
		4///2013		97 0.01	0	808		04.1					6
Cuyama	Central Coast Valleys	4/7/2013	1000		0	1250	8.9	57.3	55	41.4	7.2	5	
Cuyama			1100	C	0	1487	8.4	60.2	47	39.9	8.2	356	6
Cuyama	Central Coast Valleys		1200	C	0	1856	8.2	62.9	42	39.3	8	3	
Cuyama	Central Coast Valleys		1300		0	1863	8.4	65.9	39	40.1	10.7	345	6
Cuyama	Central Coast Valleys	4/7/2013		97 0.03	0	1662	6.7	67.6	38	40.9	11.3	347	6
Cuyama	Central Coast Valleys	4/7/2013	1500		0	1543	8.6	67.9	37	40.6	10.6	357	6
Cuyama			1600		0	1170	8.4	68.2	36	39.9	9.9	8	
Cuyama	Central Coast Valleys	4/7/2013	1700	51	0	752	8	67.9	34	38.9	9.2	358	7
Cuyama	Central Coast Valleys	4/7/2013	1800		0	293	7.9	66.2	36	38.5	9.4	354	7
Cuyama	Central Coast Valleys	4/7/2013		97 0	0	22	8.9	60.9	49	41.5	6.3	109	
Cuyama	Central Coast Valleys	4/7/2013	2000	97 0	0	0	8.4	57.2	53	40.1	2.9	236	
Cuyama	Central Coast Valleys	4/7/2013	2100	97 0	0	0	9.6	56.3	61	43.1	4.1	277	7
Cuyama	Central Coast Valleys	4/7/2013	2200	97 0	0	0	9.9	54.7	68	44.4	5.4	283	
Cuyama	Central Coast Valleys	4/7/2013	2300	97 0	0	0	9.8	52.6	73	44.1	5.4	287	6
Cuyama	Central Coast Valleys	4/7/2013	2400	97 0	0	0	9.7	50.9	76	43.6	5.7	269	6
Cuyama	Central Coast Valleys	4/8/2013	100	98 0	0	0	9	47.9	80	41.9	2.8	284	
Cuyama	Central Coast Valleys	4/8/2013	200		0	0	8.9	47.2	80	41.5	5.5	267	6
Cuyama	Central Coast Valleys	4/8/2013	300		o	0	8.9	46.1	83	41.4	2.9	303	6
Cuyama	Central Coast Valleys	4/8/2013		98 0	0	0	8.5	45.2	83	40.4	3.5	298	6
Cuyama	Central Coast Valleys	4/8/2013		98 0	0	0	7.7	44.4	77	37.8	6.3	304	6
Cuyama	Central Coast Valleys	4/8/2013	600	Y	0	12	7.5	44.1	76	37	5.8	283	6
Cuyama	Central Coast Valleys	4/8/2013	700		0	251	6.2	43.3	65	32.3	7.9	290	6
Cuyama	Central Coast Valleys	4/8/2013		98 0	0	423	5.8	43.8	59	30.5	8.6	292	6
							5.6	45.3	64	33.8	9.3	313	6
Cuyama	Central Coast Valleys	4/8/2013		98 0.01	0	632		45.3	64	35.6	9,3	329	6
Cuyama	Central Coast Valleys	4/8/2013	27413	98 0.01	0	878	7.1		100	201		and the second se	6
Cuyama	Central Coast Valleys	4/8/2013	1100	-	0	1150	7.5	49	63	37	10.9	319	
Cuyama	Central Coast Valleys	4/8/2013	1200		0	714	7.1	49.1	60	35.9	11.8	325	6
Cuyama	Central Coast Valleys	4/8/2013		98 0.02	0	1540	6.9	61	54	35.1	12.3	330	6
Cuyama	Central Coast Valleys	4/8/2013	1400	98 0.01	D	1021	6.5	52.9	47	33.4	12	326	6
Cuyama	Central Coast Valleys	4/8/2013	1500	98 0.01	0	892	5.8	54.2	41	30.9	14.3	329	6
Cuyama	Central Coast Valleys	4/8/2013	1600	98 0.02	0	1035	5.6	66.7	36	29.8	16.2	332	6
	Central Coast Valleys	4/8/2013	1700	98 0.01	0	711	5.4	56.4	35	29.2	17.6	336	6

-														
	Cuyama	Central Coast Valleys	Contraction of	1800 9		0	324	5.2	55.1	35	27.9	15.2	329	66
86		Central Coast Valleys	and the second s		98 0	0	25	5.3	53	39	28.4	10.3	326	66.2
86	Cuyama	Central Coast Valleys	4/8/2013	2000 8	0 86	0	0	5.3	51.3	41	28.4	8.6	315	66.1
BE	Cuyama	Central Coast Valleys	4/8/2013	2100 9	0 86	0	0	5.1	49.9	42	27.8	6.1	311	65.7
BE	Cuyama	Central Coast Valleys	4/8/2013	2200 9	0 86	0	0	5	47.2	45	27	3.5	296	65.2
88	Cuyama	Central Coast Valleys	4/8/2013	2300 9	0 84	0	0	4.6	42.4	50	24.9	2.6	238	64.6
80	Cuyama	Central Coast Valleys	4/8/2013	2400 9	0 86	0	0	5.3	42.1	58	28.4	3,4	253	63.9
BE	Cuyama	Central Coast Valleys	4/9/2013	100 9	0 6	0	0	5.1	37.4	67	27.3	3.6	134	63.2
BE		Central Coast Valleys	4/9/2013	200 5	9 0	0	0	5.3	35.2	76	28.3	3.6	137	62.4
88		Central Coast Valleys	4/9/2013	300 9	0 10	0	0	5	34.2	76	27.3	4	154	61.7
8		Central Coast Valleys	4/9/2013	400 9		0	D	4.6	31.7	77	25.3	3.2	146	60.9
88		Central Coast Valleys	100 M 100 M 100 M			0	0		30.7	80	25.3	2.9	131	60.2
150		and the second sec	4/9/2013					4.6					162	
BE		Central Coast Valleys	4/9/2013		9 0	0	11	4.9	31.6	81	26.4	4		59.4
88	Cuyama	Central Coast Valleys	4/9/2013	700 8	9 0	0	267	5.3	35.9	74	28.6	3.6	118	58.7
		all and the second						Averages	32.8	77	26.6	3.5		
88	Cuyama	Central Coast Valleys	4/9/2013	800 9	0,01	0	694	6.2	44.6	62	32.4	2.7	41	58
88	Cuyama	Central Coast Valleys	4/9/2013	900 9	9 0.01	0	1121	6	50.8	47	31.5	3.5	315	57.6
88	Cuyama	Central Coast Valleys	4/9/2013	1000 9	9 0.02	0	1499	5.1	55.3	34	27.7	8.9	333	57.8
88	Cuyama	Central Coast Valleys	4/9/2013	1100 9	0.02	0	1770	4.5	57,6	28	24.7	12	338	58.5
88	Cuyama	Central Coast Valleys	4/9/2013	1200 9	9 0.03	0	1916	4.6	59,1	27	24.9	11.9	336	59.8
88	Cuyama	Central Coast Valleys	4/9/2013	1300 8	0.03	0	1937	4.6	61	25	25	11.4	336	61.5
88		Central Coast Valleys	4/9/2013	1400 9	· · · · ·	a	1825	4.6	62.1	24	25.3	10.1	331	63.1
80		Central Coast Valleys		1500 9	Contraction of the second	0	1584	4.7	62.8	24	25.8	10.4	335	64.6
			4/9/2013	12.2			1584	4.7	62.6	24	26.2	12.1	342	66
80		Central Coast Valleys	-Townson (1600 9		0								67.2
88	0.120000	Central Coast Valleys	4/9/2013	1700 9		0	815	4.9	62.3	26	26.6	11	334	
88		Central Coast Valleys	4/9/2013		9 0.01	0	377	5.2	61	29	28.2	9.4	333	67.9
88	Cuyama	Central Coast Valleys	4/9/2013	1900 9	19 0	0	30	5.2	57.7	32	27.9	8.1	350	68.2
BE	Cuyama	Central Coast Valleys	4/9/2013	2000 9	9 0	0	0	5	54,8	34	27	6	5	68.1
88	Cuyama	Central Coast Valleys	4/9/2013	2100 9	19 0	0	0	5	49.3	42	27.1	3.5	109	74.3 Y
88	Cuyama	Central Coast Valleys	4/9/2013	2200 9	9 0	0	0	5	46	48	27.3	5.7	190	S
88		Central Coast Valleys	4/9/2013	2300 9	-	0	0	5.5	43.5	57	29.3	4.2	118	S
88	34.000	Central Coast Valleys	4/9/2013	2400 9		0	0	5.7	40.7	66	30.4	5.7	129	s
86		Central Coast Valleys	4/10/2013	100 10	a second	0	0	5.7	39.3	70	30.4	4.2	101	82,4 R
88		Central Coast Valleys	4/10/2013	200 10		0	0	5.8	38.8	72	30.6	4.7	115	77.9 R
				and the second s	Commence and second	and the second sec							132	75.3 Y
88		Central Coast Valleys	4/10/2013	300 10		D	0	5.5	37.7	71	29.3	4.4		
88	11.0000	Central Coast Valleys	4/10/2013	400 10		0	0	5.6	36.4	76	29.7	5.1	111	71,9 Y
88	Cuyama	Central Coast Valleys	4/10/2013	500 10	0 0	0	0	5.5	37.2	73	29.5	6.7	111	71 Y
88	Cuyama	Central Coast Valleys	4/10/2013	600 10	0 0	0	13	5.3	35.7	74	28.3	4.9	119	71.3 Y
88	Cuyama	Central Coast Valleys	4/10/2013	700 10	0 0	D	284	5,8	39,2	71	30.6	6.5	99	62.3
88	Cuyama	Central Coast Valleys	4/10/2013	800 10	0 0.01	0	705	6.4	48.9	54	33.2	5.9	94	68.7 Y
88	Cuyama	Central Coast Valleys	4/10/2013	900 10	0 0.01	0	1137	6.2	58.8	37	32.5	3.2	88	54.6
88	Cuyama	Central Coast Valleys	4/10/2013	1000 10	0 0.02	0	1505	5.8	63.8	29	30.7	3.8	124	54.2
88		Central Coast Valleys	4/10/2013	1100 10		0	1772	5.5	67.2	24	29.3	4.5	161	55.2
88						0	1916	5.3	70	21	28.3	5.1	149	56.8
		Central Coast Valleys	4/10/2013	1200 10	1								348	58.6
88		Central Coast Valleys	4/10/2013	1300 10		0	1933	4.9	72.6	18	26.7	7.1		
88		Central Coast Valleys	4/10/2013	1400 10		0	1819	5	74.5	17	27.1	10,1	345	60.3
88	Cuyama	Central Coast Valleys	4/10/2013	1500 10	0 0.03	0	1590	5.5	75.5	18	29.3	9.8	339	61.9
88	Cuyama	Central Coast Valleys	4/10/2013	1600 10	0 0.02	0	1255	5	74.7	17	27.1	11.2	330	63,4
88	Cuyama	Central Coast Valleys	4/10/2013	1700 10	0 0.01	0	840	5.4	73.6	19	29	7.5	328	64.7
88	Cuyama	Central Coast Valleys	4/10/2013	1800 10	0 0.01	0	392	5.3	71.8	20	28.7	7.8	337	65,6
68		Central Coast Valleys	4/10/2013	1900 10	0 0	0	33	4.9	67.5	21	26.7	4.9	8	66.1
88		Central Coast Valleys		2000 10		0	0	5.4	62.1	28	29	3.7	111	66.2
80	Cuyama	Central Coast Valleys	4/10/2013	2100 10		0		5.6	59.4	32	29.9	5	92	65.8
-	oujinin					0	0	6.7	54.1	47	34.2	6.5	132	65.2
	Cuyama	Central Coast Valleys		2200 10	· · · · · · · · · · · · · · · · · · ·								and the second second	
88	1	Central Coast Valleys		2300 10		0	0	6.5	51.4	50	33.5	5	95	64.4
88			4/10/2013	2400 10		0	0	6.6	49.1	57	34.7	5.5	122	63,6
88	Cuyama	Central Coast Valleys	4/11/2013	100 10	1 0	0	0	7	48.1	61	35.3	5	118	62.7
88	Cuyama	Central Coast Valleys	4/11/2013	200 10	1 0	0	0	7	46.3	65	35.2	3.5	140	61.9
88	Cuyama	Central Coast Valleys	4/11/2013	300 10	1 0	0	0	7.1	45.7	68	35.8	5.1	115	61
88	Cuyama	Central Coast Valleys	4/11/2013	400 10	1 0	0	0	7	44.3	70	35.2	4.4	126	60.2
68	Guyama	Central Coast Valleys	4/11/2013	500 10	1 0	0	0	6,9	43.5	71	34.9	3,3	140	59.5
88	Cuyama	Central Coast Valleys	4/11/2013	600 10	1 0	0	8	6.4	42.3	70	33.2	3.2	220	58.7
68	Cuyama		4/11/2013	700 10		0	274	7.5	47.3	67	37.1	4.2	100	58
88		I Design of the second second	4/11/2013	800 10		0	689	8,5	55.8	56	40.3	4.3	50	57.5
88		Central Coast Valleys		900 10		0	1101	8.8	61.2	47	41.1	3.9	88	57.1
88	Cuyama	in the second seco	and the second s			0	1466	8.7	66.3	39	40.8	4.4	102	57.4
	Cuyama	Central Coast Valleys Central Coast Valleys	1.	1000 10	1				68.9	39	40.5	6.3	80	58.2
88	Cuyama			1100 10		0	1733	8.5				and the second sec		
88	Cuyama		4/11/2013	1200 10		0	1885	8.9	70	36	41.6	10.6	101	59.5
88	Cuyama	Central Coast Valleys	4/11/2013	1300 10	1 0.03	0	1894	9	71.4	34	41.8	7.6	21	61
88	Cuyama	Central Coast Valleys	4/11/2013	1400 10	1 0.03	0	1768	9	72.4	33	41.8	8,9	348	62,5
88	Cuyama	Central Coast Valleys	4/11/2013	1500 10	1 0.03	0	1551	9.2	73.1	33	42.4	13.3	352	64
88	Cuyama	Central Coast Valleys	4/11/2013	1600 10	1 0.02	0	1174	9.3	71.8	35	42.6	14.7	350	65.5
88	Cuyama	Central Coast Valleys	4/11/2013	1700 10	1 0.01	0	719	9.2	70.3	36	42.3	14.1	343	66.7
88		Central Coast Valleys	Contraction of the	1800 10		0	261	9	67.9	39	41.9	13.4	344	67.5
68		Central Coast Valleys		1900 10		0	29	9	65.3	42	41.7	8.8	352	67.8
88		Central Coast Valleys				0	0	9	62.5	46	41.7	5.4	2	67.7
		in the second	inim many and	2000 10					1000 C					
	Cuyarna	Central Coast Valleys		2100 10	and the second second	0	0	8.8	57.6	54	41.1	3.5	168	67.3
88	Cuyama		4/11/2013	2200 10		0	0	8.7	55	59	41	4.3	170	66.7
88	Cuyama	Central Coast Valleys	4/11/2013	2300 10	1 0	0	0	9	53.4	65	41.8	6.4	159	66.1
88	Cuyama	Central Coast Valleys	4/11/2013	2400 10	1 0	0	0	8.7	52.4	65	40.8	5.9	155	65.3
88	Cuyama	Central Coast Valleys	4/12/2013	100 10	2 0	0	0	8.4	49	71	40.1	2.9	65	64.6
	the second second	Central Coast Valleys	Contractor Contractor	200 10	A second second second	0	0	7.9	47.2	71	38.3	2.4	132	63.8
88		Central Coast Valleys		300 10		0	0	7.8	46	74	38.3	3.5	44	63.1
88	Cuyama													
88	Cuyama Cuyama	Central Coast Valleys	4/19/0010	400 10	2 0	0	0	8.1	44.7	80	39	5.1	89	62.3

8	8 Cuya	ama (Central Coast Valleys	4/12/2013	600	102	0	0	16	7.7	42.2	84	37.7	3.9	112	60.9
8	8 Cuya	ama (Central Coast Valleys	4/12/2013	700	102	0	0	271	8.5	45.8	81	40.2	5.5	90	60.1
8	8 Cuya	ama I	Central Coast Valleys	4/12/2013	800	102	0,01	0	688	9.5	53.4	68	43.2	6.1	75	59,5
B	8 Cuya	ama (Central Coast Valleys	4/12/2013	900	102	0.01	0	1110	9.5	61.4	51	43.2	4.4	107	59.1
1.1	8 Cuya			4/12/2013	1000		0.02	0	1470	8.7	65.9	40	40.8	4.4	151	59.2
B	2				1100		0.02	0	1737	8.8	69.3	36	41.2	5.6	158	59.9
1				4/12/2013				0			72.2	34	42.5	5	106	61.2
	8 Cuya			4/12/2013	1200		0.03		1887	9,3		and the second s	1000	4.9	117	62.9
(8 Cuya			4/12/2013	1300		0.03	0	1906	9.2	74,8	31	42.3		353	64.6
B	8 Cuya	ama (4/12/2013	1400	102	0,03	0	1603	9.1	76.9	29	42.2	6.1		
8	8 Cuya	ama (Central Coast Valleys	4/12/2013	1500	102	0.02	0	1555	8.9	77.1	28	41.4	7.4	347	66.2
8	8 Cuya	ama (Central Coast Valleys	4/12/2013	1600	102	0.02	0	1203	8.9	77.6	27	41.4	7.5	343	67.9
B	8 Cuya	ama (Central Coast Valleys	4/12/2013	1700	102	0.01	0	602	8.8	76.4	28	41.3	10.1	344	69.4
8	8 Cuya	ama (Central Coast Valleys	4/12/2013	1800	102	0.01	0	357	9.5	73.9	33	43.3	7.2	72	70.4
8	8 Cuya	ama (Central Coast Valleys	4/12/2013	1900	102	0	0	34	9,9	69	41	44.2	4.4	109	70.9 Y
8	8 Cuya	ama (Central Coast Valleys	4/12/2013	2000	102	0	0	0	9.5	65.5	44	43.3	3.1	194	70.6
8	-		Central Coast Valleys	4/12/2013	2100		0	0	0	9.1	61,1	49	42	3.2	248	70.4
8				4/12/2013	2200		0	0	0	8,4	56.8	54	40.2	2.2	227	69.9
-					2300		0	0	0	8.8	53.7	63	41.3	3.8	135	69.2
	8 Cuya		the second s	4/12/2013		1.0		0			52.3	70	42.8	4.1	117	68.5
	8 Cuya	CACE.		4/12/2013	2400		0		0	9.4			and a second second	5.2	114	67.6
8	8 Cuya		and the second second second	4/13/2013	100		0	0	0	9	49.3	75	41.9		94	66.8
8	8 Cuya	ama (4/13/2013	200	103	0	0	D	8.7	47.9	n	41	4		
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	300	103	0	0	0	8.5	47	77	40.2	4.6	103	65.9
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	400	103	0	0	0	8.1	48.7	75	39.2	5.3	106	65.1
B	8 Cuya	ama (Central Coast Valleys	4/13/2013	500	103	0	0	0	7.9	45	78	38.6	4.9	114	64.3
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	600	103	0	0	18	7.9	44.6	79	38.4	5.3	103	63.4
B	8 Cuya	ama (Central Coast Valleys	4/13/2013	700	103	0	0	290	8.5	48.2	74	40.2	6.3	78	62.7
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	800	103	0.01	0	712	9.4	57	59	42.8	0.7	84	62
8	8 Cuya			4/13/2013	900	103	0.01	0	1131	9.5	66	43	43.1	4.3	64	61.5
8				4/13/2013	1000		0.02	0	1462	9.7	71.6	37	43.9	2.9	311	61.6
8				4/13/2013	1100		0.02	0	1757	8.7	74.4	30	40.8	4.5	26	62.5
	8 Cuya			4/13/2013	1200	-	0.03	0	1912	8.3	76.7	27	39.8	5.6	341	63.9
8	-	1.1.1		4/13/2013	1300		0.03	0	1904	8.2	78.7	24	39.4	4.9	138	65.8
				4/13/2013	1400		0.03	0	1755	8.8	80.2	25	41.3	5.9	305	67.4
1.1		10.00 A	Charles Tester and and	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1								21	36.8	9.7	318	69 Y
8	1000		Central Coast Valleys	and the second sec	1500		0.03	0	1518	7.4	80.2		- 16		295	70.7 Y
8	1		Central Coast Valleys		1600		0.02	0	1190	9.3	79	28	42.7	9.1		
B	8 Cuya	ama (Central Coast Valleys	4/13/2013	1700 1	103	0.01	0	798	9.2	75.9	30	42.5	10.4	284	72.1 Y
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	1800	103	0.01	0	388	8.9	72.1	33	41.5	10.3	284	73.1 Y
8	8 Cuya	arna (Central Coast Valleys	4/13/2013	1900	103	0	0	36	8.4	65,8	39	40	9.8	275	73.4 Y
B	8 Cuya	ama (Central Coast Valleys	4/13/2013	2000	103	0	0	0	8.9	61.4	48	41.5	8.2	272	73.1 Y
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	2100	103	0	0	0	8.5	59.7	49	40.4	6.7	262	72.6 Y
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	2200	103	0	0	0	8.7	56.4	56	40.9	2.3	5	71.9 Y
8	8 Cuya	ama (Central Coast Valleys	4/13/2013	2300	103	0	0	0	8.1	52.1	61	39	3.7	180	71 Y
8	-			4/13/2013	2400	103	0	0	0	7.5	50	61	37.2	1.8	3	70.1
8				4/14/2013	100 1	2.1	0	0	0	7.4	48.1	65	38.8	4.1	168	69.2
8			Central Coast Valleys	South the state	200 1	5.21	0	0	0	7.2	46	68	36.1	2.2	115	68.2
8		100		4/14/2013	300	. S	0	0	0	7.4	45.4	71	36.7	3.6	242	67.3
8	1.000		Central Coast Valleys		400 1		0	0	0	7.2	44.4	72	36.1	2.9	166	66.4
8				4/14/2013	500 1		0	0	0	7.3	43.6	76	36.6	3.7	109	65.5
11044	-		The state of the s				0	0	13	7.7	43.6	80	37.7	3	82	64.6
8			Contraction Contraction	4/14/2013	600 1									3.5	149	63.8
8				4/14/2013	700 1	· · · ·	0	0	294	9	50.3	72	41.7		128	63
8	8 Cuya	uma (Central Coast Valleys	4/14/2013	800 1		0.01	0	721	9.4	58	57	42.8	6,8		
8	8 Cuya		Central Coast Valleys	and the second sec	900	-	0.01	O	1143	9.3	61.6	50	42.8	7.2	97	62.6
8	8 Cuya	ama (Central Coast Valleys	4/14/2013	1000 1	104	0.02	0	1503	9.4	64.2	46	43	6.2	99	62.6
8	8 Cuya	ima (Central Coast Valleys	4/14/2013	1100 1	104	0.02	0	1764	9.3	66.3	42	42.6	6.8	110	63.2
8	8 Cuya	ima (Central Coast Valleys	4/14/2013	1200 1	104	0.03	0	1904	9.2	68.7	38	42.2	6.2	5	64.3
8	8 Cuya	ama (Central Coast Valleys	4/14/2013	1300 1	104	0.03	0	1920	8.7	70.3	34	40.9	9.8	348	65.8
8	1	100 C 1		4/14/2013	1400 1	104	0.03	0	1813	8.4	71.8	32	40.1	8.8	9	67.2
B	1.000			4/14/2013	1500 1		0.02	0	1588	8	73,4	28	38.7	8.7	352	68.6 Y
8		10.000	and the second se	4/14/2013	1600 1	10 m	0.02	0	1246	7.6	74.2	26	37.6	12.7	342	69.9 Y
B	1		Central Coast Valleys	1. Sec. 2. Sec. 4.	1700 1		0.01	0	838	7	73.9	25	35.4	9,4	335	71.1 Y
8	1	-		4/14/2013	1800 1		0.01	0	387	7.8	71.1	30	38.2	7.5	316	71.9 Y
B	1	0.0	Central Coast Valleys		1900 1	C.3	D	0	38	9.3	65.4	43	42.7	6.8	286	72.3 Y
B	-			4/14/2013	2000 1		0	0	0	9.5	60.9	52	43.1	5.4	279	72.3 Y
8				4/14/2013	2100 1		0	0	0	9.4	58.1	57	43	3.9	298	72 Y
16	1							0	0	8.1	57.2	51	39.1	4.9	281	71.4 Y
B				4/14/2013	2200 1		0						36.6	5	284	70.7 Y
B	100		Central Coast Valleys	10000	2300 1		0	0	0	7.3	54.9	50			326	69.9
84	1	-	Central Coast Valleys		2400 1		0	0	0	7.2	51.5	55	36.1	3.3		
B			Central Coast Valleys		100 1		0	0	0	7.3	51.1	57	36.3	2	264	69
Bi	B Cuyar	ima C	Central Coast Valleys	4/15/2013	200 1	105	0	0	D	7	48.1	61	35.3	3	259	68.2
8	Cuya		Central Coast Valleys	4/15/2013	300 1	105	0	0	D	6.6	44.5	66	33.9	2	217	67.3
B	B Cuyar	ima (Central Coast Valleys	4/15/2013	400 1	105	0	0	0	6.3	42.4	68	32.8	2.2	215	66.4
Bi	B Cuyar	ima (Central Coast Valleys	4/15/2013	500 1	105	0	Ó	0	6.4	41,4	72	33.1	2.7	231	65.6
88	B Cuyar		Central Coast Valleys	4/15/2013	600 1	105	0	0	23	6.5	41	75	33.6	2	266	64.7
8			and the second se	4/15/2013	700 1		C	0	315	7.2	44.2	72	36	2.4	304	63,8
Bi	-			4/15/2013	800 1		0.01	0	706	7.8	49.2	86	38.3	3.2	48	63.1
8				4/15/2013	900 1		0.01	0	1171	8.4	53.8	60	40.2	4.1	89	62.7
8				4/15/2013	1000 1		0.02	a	1540	8.4	58.7	54	40.1	3.5	110	62.7
BL		Manager and Ph	Central Coast Valleys		1100 1		0.02	0	1803	8.2	59.6	47	39.4	4.8	343	63.3
-	1	The second se	Central Coast Valleys			28 S.		0	1953	7,4	63.1	37	36.6	5.9	324	64.5
88					1200 1	200 L	0.02			the second se	and the second second	22	26.6	8.8	295	66.1
BL			Central Coast Valleys		1300 1		0.03	0	1982	4.9	66.1	and the second se		8.8	295	67.4
B	1		Central Coast Valleys		1400 1	10 and 10 and 10	0.03	0	1871	5	66.9	22	27			67.4 68.7 Y
88			Central Coast Valleys		1500 1	-	0.02	0	1635	4.6	66.2	21	25.2	9,4	289	
80			Central Coast Valleys		1600 1		0.02	0	1292	5,4	65.3	26	29.2	10	280	70 Y
	Cuyar	ma C	Central Coast Valleys	4/15/2013	1700 1	105	0.01	0	868	5.5	62:7	28	29.6	10.1	286	71 Y 71.5 Y
B	Cuyai							0	428	5.8	58	35	30.6	10.2	289	

						1								
	B Cuyama	Contraction of the second s	101 - 10 - 10 - 10 - 10 - 10 - 10 - 10	1900 1		0	43	6.6	52.5	49	34	9.6	274	71.6 Y
-	B Cuyama			2000 1	-	0	0	7.1	48.8	60	35.7	10.1	263	71.3 Y
8		Central Coast Valleys	la l	2100 1		0	0	7.1	45.1	67	35.7	6.8	265	70.6
8	1 and 1	Central Coast Valleys	and the second sec	2200 1	1	0	0	6.9	42.4	75	35.1	7.5	279	
8	and the second			2300 1	the second se	0	0	6.8	40.4	79	34.5	7.7	274	68,7
8		Central Coast Valleys		2400 1	and the second s	0	0	6.4	39.8	77	33.1	6.4	287	67.7
8		Central Coast Valleys		100 1		0	0	5.2	38,1	66	27.8	5.2	323	65.7
8		Central Coast Valleys	and	200 1		0	0	4.6	34.9	66	24.9	4.3	281	64.6
8		Central Coast Valleys		300 1		0	0	4.7	34,1	70	25.6	3,4	Contraction of the second s	
8		Central Coast Valleys		400 1		D	0	4.7	33.2	73	25.6	2.2	188	63.8
8		Central Coast Valleys	4/16/2013	500 1		0	0	4.8	32.3	77	26	3	178	62.8
Б	Cuyama	Central Coast Valleys	4/16/2013	600 10	06 Q	0	9	5	34.3	74	27.1	1.9	5	61.8
								Averages	34	72	25.8	3.0		-
8		Central Coast Valleys	1	700 10	0 0	0	175	5.2	37	70	28.2	1.3	280	61
B	Cuyama	Central Coast Valleys	4/16/2013	800 10	0.01	0	735	5.6	41.8	62	29.9	2.1	19	60.3
8	Cuyama	Central Coast Valleys	4/16/2013	900 10	06 0.01	0	1225	5.7	45.6	55	30.4	4.7	4	59.8
B	Cuyama	Central Coast Valleys	4/16/2013	1000 10	06 0.02	0	1376	5.5	48.6	48	29.6	8.9	334	59,8
8	Cuyama	Central Coast Valleys	4/16/2013	1100 10	0.02	0	1759	5.4	51.5	42	29	11.1	335	60.4
B	Cuyama	Central Coast Valleys	4/16/2013	1200 10	0.02	0	1968	5.2	54.1	37	28.2	13.3	339	61.5
8	Cuyama	Central Coast Valleys	4/16/2013	1300 10	0.03	0	1964	5	56.1	32	27	13.5	339	62.9
8	Cuyama	Central Coast Valleys	4/16/2013	1400 10	0.02	0	1850	4.8	57.7	30	26.3	12.3	339	64
B	Cuyama	Central Coast Valleys	4/16/2013	1500 10	0.02	0	1476	4.2	58.6	25	22.9	13.2	329	65
84	Cuyama	Central Coast Valleys	4/16/2013	1600 10	0.02	0	922	3.6	58.7	21	19.2	14.4	337	66
84	Cuyama	Central Coast Valleys	4/16/2013	1700 10		0	367	2.9	57	18	14.3	14.2	339	66.9
B		Central Coast Valleys	4/16/2013	1800 10	-	0	251	2.6	58.4	17	12	12.9	336	67.3
B		Central Coast Valleys	4/16/2013	1900 10		0	23	2.1	54.9	15	7.4	12.3	330	67.2
B		Central Coast Valleys	4/16/2013	2000 10		0	0	2.2	52.9	16	8.6	10.9	325	66.9
84		Central Coast Valleys	4/16/2013	2100 10		0	0	2.8	50.8	22	13.4	12.4	330	66.3
6		Central Coast Valleys	4/16/2013	2200 10	2	0	0	2.9	49.6	24	14.7	11.2	328	65.7
84			4/16/2013	2300 10		2		2,9	49.6	24	14.2	9.9	320	65
88		Central Coast Valleys Central Coast Valleys	4/16/2013	2300 10	1	0	0		49.0	24	14.2	4.6	281	64.2
80	-			2400 10		0	0	3.1	47.2	28	19.2	4.8	266	63.5
		Central Coast Valleys	4/17/2013		1	and a summer of the second sec		and the second se	and the second second					1000
88		Central Coast Valleys Central Coast Valleys	4/17/2013	200 10	1	0	0	3.6	40.9	42	19.6	2.4	237	62.7
88				300 10	S	0	0	3.9	39.6	47	21.2			
88	1000	Central Coast Valleys	NU	400 10	the second se	0	0	4	37.9	52	21.7	1.9	333	61.1
86	1.	Central Coast Valleys		500 10		0	0	4,1	34,9	59	22.2	4.2	164	60.4
88	Cuyama	Central Coast Valleys	4/17/2013	600 10	0	0	29	4.1	33.5	64	22.5	5.5	153	59.6
88	Cuyama	Central Coast Valleys	4/17/2013	700 10	07 0	0	343	4.6	37.3	61	25.2	4.4	95	58.7
								Averages	35.9	69	23	4.0		
88	Cuyama	Central Coast Valleys	4/17/2013	800 10	0.01	0	773	4.8	46.1	45	26	3.8	107	58
66	Cuyama	Central Coast Valleys	4/17/2013	900 10	0.01	0	1198	4.3	51.4	33	23.2	4	339	57.6
88	Cuyama	Central Coast Valleys	4/17/2013	1000 10	0.02	0	1563	4	53.9	28	22	9.2	338	57.8
88	Cuyama	Central Coast Valleys	4/17/2013	1100 10	0.02	0	1819	4.1	56.4	26	22.2	9.6	345	58.6
88	Cuyama	Central Coast Valleys	4/17/2013	1200 10	7 0.03	0	1960	3.7	58.1	23	20.2	13.5	340	59.9
88	6	Central Coast Valleys	4/17/2013	1300 10	7 0.03	0	1972	3.8	59.3	22	20.5	11.7	344	61.4
88		Central Coast Valleys	4/17/2013	1400 10	1 2.3	0	1844	3.9	60.2	22	20.9	12	335	62.6
BE		Central Coast Valleys	4/17/2013	1500 10	-	0	1617	3.8	60.4	21	20.5	11.6	336	63.7
BE			4/17/2013	1600 10		0	1278	3.4	60.4	19	17.6	11.2	333	64.9
88			4/17/2013	1700 10		0	862	3.2	60	18	16.8	10.3	339	68
88			4/17/2013	1800 10			424	2.9	58.7	17	14.1	10.5	337	66.8
	Cuyama					0		the second se			13.3	7.4	343	67.1
68		Central Coast Valleys	4/17/2013	1900 10		0	46	2.8	55.1	19	1005			
	Cuyama	Central Coast Valleys		2000 10		0	0	2.6	51.6	22	13.5	4.8	5	67
	Cuyarna	Central Coast Valleys	Contraction of the second	2100 10		O	0	3.9	47.4	35	21.4	5	115	66.6
	Cuyama	Central Coast Valleys		2200 10	and and a	0	0	4.1	44.3	41	22.4	5.4	98	85.9
88		Central Coast Valleys		2300 10	X	0	0	4	38.1	52	21:9	3.6	71	65.1
88		Central Coast Valleys	Charles Street Street	2400 10	1	0	0	3.8	38	48	20.3	3.8	138	64.2
88	Cuyama	Central Coast Valleys	4/18/2013	100 10	8 0	0	0	3.6	37.5	50	20.7	4.3	99	63.4
68	Cuyama	Central Coast Valleys	4/18/2013	200 10	8 0	0	0	4.3	36.1	59	23.3	6.2	121	62.5
88	Cuyama	Central Coast Valleys	4/18/2013	300 10	8 0	0	0	4.2	34.4	63	23.1	3.9	110	61.6
88	Cuyama	Central Coast Valleys	4/18/2013	400 10	8 0	0	0	4	34	60	21.7	6	97	60.7
88	Cuyama	Central Coast Valleys	4/18/2013	500 10	8 0	0	0	4	32.7	63	21.5	5.6	120	59.9
88	Cuyama	Central Coast Valleys	4/18/2013	600 10	8 0	0	30	4	32.7	63	21.7	6	108	59.1
88	Cuyama	Central Coast Valleys	4/18/2013	700 10	8 0	0	341	4.1	37.9	53	22.1	7.4	92	58.2
-	-							Averages	34.3	60	22.0	5.8		
88	Cuyama	Central Coast Valleys	4/18/2013	800 10	8 0.01	0	767	4.4	46.6	41	24.2	6.2	96	57.5
88		Central Coast Valleys		900 10		0	1197	4.3	54.9	29	23.4	4.5	101	57.1
88		Central Coast Valleys		1000 10		0	1559	3.5	60.4	19	18.6	5.2	143	57.2
88	Cuyama		4/18/2013	1100 10		0	1817	3.8	64.6	18	20.5	4,1	32	57.9
88		1.0.25 10 044 10.0.0	4/18/2013	1200 10		0	1958	4.1	67	18	22.4	4.5	352	59.3
68			4/18/2013	1300 10		0	1958	4	68.7	17	21.8	6.6	357	61.1
88			4/18/2013	the second se		0	1968	3.9	69.9	16	21.6	6.8	331	62.7
		and the second sec	4/18/2013	1400 10		-		the second se	-1041	16	21.3	9.2	0	64.2
88			in more thank	1500 10	1	0	1613	3.9	70.2		17. SC			
88	Cuyama		4/18/2013	1600 10		0	1266	3.6	69.8	15	19.5	9.9	351	65.7
88	Cuyama		4/18/2013	1700 10		0	851	3.5	68.8	14	18.5	10.9	352	67
88			4/18/2013	1800 10		0	408	4	66	18	21.7	11.7	349	67.9
88		Central Coast Valleys		1900 10	1	0	46	4.3	62.1	23	23.7	7,5	349	68.3
88			4/18/2013	2000 10		0	0	4.4	57.9	27	24.1	4.9	113	68.3
68	Cuyama		4/18/2013	2100 10		0	0	4,8	52.4	36	26.3	5.5	153	67.9
88	Cuyama	Central Coast Valleys	4/18/2013	2200 10	8 0	0	0	4.7	49.5	39	25.6	5.1	157	67.4
-	Cuyama	Central Coast Valleys	4/18/2013	2300 10	8 0	0	0	4.5	48,1	39	24.6	3.2	133	66.7
88	Cuyama	Central Coast Valleys	4/18/2013	2400 10	во	0	0	4.7	43	50	25.5	3.2	161	65.9
88		Central Coast Valleys	4/19/2013	100 10	9 0	0	0	4.8	41.4	54	25.9	3.8	94	65.1
10	Cuyama				and the second se						an all			
88	Cuyama Cuyama		4/19/2013	200 10	9 0	0	0	4.8	40.3	56	25.9	5.3	125	64.3
88 88		Central Coast Valleys	4/19/2013 4/19/2013	200 10		0	0	4.8	40.3	59	25.9	5.3	125	63.4

_															
-	-	uyama	Central Coast Valleys	and the second second	500 1		0	0	4.5	38	58	24.5	5.5	125	61.8
6 mil		uyama	Central Coast Valleys		600 1	09 0	0	33	4.5	37.4	59	24.6	6	117	60.9
E	38 Cu	uyama	Central Coast Valleys	4/19/2013	700 1	09 0	0	350	4.6	42.6	52	26.1	6.2	83	60.2
	38 Cu	uyama	Central Coast Valleys	4/19/2013	800 1	09 0.01	0	774	5.1	52.1	38	27.5	5.7	92	59.5
E	38 Cu	uyama	Central Coast Valleys	4/19/2013	900 1	09 0.01	0	1192	4.9	61.1	27	26.5	4	117	59.1
	38 Cu	uyama	Central Coast Valleys	4/19/2013	1000 1	09 0.02	0	1549	5	65.9	23	26.9	3.9	114	59.3
8	38 Cu	uyama	Central Coast Valleys	4/19/2013	1100 1	09 0.02	0	1805	5.1	69.7	20	27.4	4.8	109	60.1
	18 Cu	uyama	Central Coast Valleys	4/19/2013	1200 1	09 0.03	0	1931	5.3	72	20	28.6	7.1	355	61.5
	-	uyama	Central Coast Valleys	and the second second	1300 1	09 0.03	0	1943	5	72.8	18	26.9	9	1	63.2
-		uyama	Central Coast Valleys	Land and the	1400 1		0	1832	5.1	73.7	18	27.4	8.7	358	64.7
1	-	uyama	Central Coast Valleys	1	1500 1		0	1602	5.2	74.3	18	28.2	9.2	353	66.1
	1			4/19/2013	1600 1		the second se					25.7	11,2	353	67.5
	-	uyama	Central Coast Valleys		the second se		0	1267	4.7	74.8	16				1000
-	-	uyama	Central Coast Valleys	4/19/2013	1700 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1	0	862	4.9	73.1	18	26.5	10.7	338	68.8
1	2	uyama	Central Coast Valleys	Sec. Sec. Sec.	1800 1	S	0	429	5.3	70.9	21	28.6	11	346	69.7
8	8 Cu	uyama	Central Coast Vaileys	4/19/2013	1900 1	09 0	0	46	5.2	67.7	23	28.1	6.4	354	70.1
8	B Cu	uyama	Central Coast Valleys	4/19/2013	2000 1	0 0	0	0	5.5	61	30	29.4	4.6	114	70.1
8	8 Cu	uyama	Central Coast Valleys	4/19/2013	2100 1	09 0	0	0	5.9	58.7	38	31.1	5.1	124	69.8
8	8 Cu	uyama	Central Coast Valleys	4/19/2013	2200 1	09 0	0	0	4.9	53.3	35	26.5	1.7	174	69.3
8	8 Cu	uyama	Central Coast Valleys	4/19/2013	2300 1	09 0	0	0	5.8	60	47	30.6	4,1	109	68.6
8	8 Cu	yama	Central Coast Valleys	4/19/2013	2400 1	09 0	0	0	6.1	47.3	55	31.8	3.6	124	67.9
8	1	yama	Central Coast Valleys	4/20/2013	100 1		0	0	5.8	47.5	52	30.8	4.2	143	67.1
1.1.10	1	yama	Central Coast Valleys	4/20/2013	200 1	5	0	0	6.3	44.5	63	32.8	4	103	66.3
	1				300 1		0	0	6.3	43.7	65	32.6	4	119	65.5
	1.00	yama	Central Coast Valleys	4/20/2013	1996		a la companya da companya d			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
8	0	yama	Central Coast Valleys	4/20/2013	400 1		0	0	6.2	42.8	67	32.4	3.6	107	64.7
	1000	iyama	Central Coast Valleys	4/20/2013	500 1		D	0	6.2	42	68	32.2	3.3	90	63.9
	1.1	yama	Central Coast Valleys	4/20/2013	600 1		0	32	6.3	42.1	69	32.6	4.3	104	63.2
B		iyama	Central Coast Valleys	4/20/2013	700 1	10 0	0	342	7.4	53.2	53	36.6	4.5	127	62.5
8	8 Cu	yama	Central Coast Valleys	4/20/2013	800 1	10 0.01	0	763	8.8	62.8	45	41.3	8.4	30	61.9
B	8 Cu)	iyama	Central Coast Valleys	4/20/2013	900 1	10 0.02	0	1177	9.4	65	45	43	10	356	61.6
8	8 Cu)	yama	Central Coast Valleys	4/20/2013	1000 1	0 0.02	0	1538	9.2	68.4	39	42.3	5.7	40	61.9
8		yama	Central Coast Valleys	4/20/2013	1100 1		0	1797	8.8	70.8	34	41.3	6.5	68	62.7
1-1-	-	iyama	Central Coast Valleys	4/20/2013	1200 1		0	1933	8.8	73.2	32	41.3	5.7	10	64.1
		yama	Central Coast Valleys	4/20/2013	1300 1		0	1951	8.2	75.2	27	39.3	6.5	354	65.7
8	24	yama	Central Coast Valleys	4/20/2013	1400 1		0	1854	7.4	76.3	24	36.9	6.2	338	67.1
			Contraction of the second second second					1627		78.2	24	33.8	6.2	330	68.5 Y
8		iyama	Central Coast Valleys	4/20/2013	1500 1	and the second second second	0		6.6						
B	10.0	iyama	Central Coast Valleys	4/20/2013	1600 1		0	1275	6.1	78.6	18	32.1	7.8	346	70 Y
8	8 Cuy	iyama	Central Coast Valleys		1700 1	10 0.01	0	859	5.7	77.3	18	30.2	9.3	350	71.5 Y
8	8 Cu	yama	Central Coast Valleys	4/20/2013	1800 1	10 0.01	0	419	6.1	75.2	20	32	9.7	351	72.4 Y
B	8 Cuy	yama	Central Coast Valleys	4/20/2013	1900 1	0 0	0	47	6	71.1	23	31.6	6.9	357	72.9 Y
8	8 Cuy	yama	Central Coast Valleys	4/20/2013	2000 1	0 0	0	0	7.3	63.1	37	38.5	5.2	142	72.9 Y
8	8 Cu	yama	Central Coast Valleys	4/20/2013	2100 1	0 0	0	0	7.7	59.6	44	37.6	5	152	72.5 Y
8	8 Cu	yama	Central Coast Valleys	4/20/2013	2200 1	0 0	0	0	7.1	55.1	48	35.8	2.9	156	71.9 Y
8	-	yama	Central Coast Valleys	4/20/2013	2300 1	0 0	0	0	7.8	51.7	60	38.1	4.1	96	71.2 Y
8		yama	Central Coast Valleys	4/20/2013	2400 1	1	0	0	7.5	49.5	62	37.1	5.8	115	70.4 Y
8	1		Central Coast Valleys	4/21/2013	100 1	13	0	0	7.4	48	64	36.7	5.6	113	69.6
				1101200				5	the second se			70-5		112	68.7
8			Central Coast Valleys	4/21/2013	200 1		0	0	7.2	46.8	66	35.9	5.4		
8		1	Central Coast Valleys	4/21/2013	300 1	S	0	0	6,9	45.5	67	35.1	5.2	98	67.9
8	8 Cuy	yama	Central Coast Valleys	4/21/2013	400 1	1 0	0	0	6.5	44.4	65	33.4	3.7	120	67
8	8 Cuy	iyama	Central Coast Valleys	4/21/2013	500 1	1 0	0	0	6.5	43.6	67	33.4	5.7	101	66.2
8	8 Cuy	yama	Central Coast Valleys	4/21/2013	600 1	1 0	0	37	6.2	431	66	32.4	6.1	101	65.4
B	8 Cuy	yama	Central Coast Valleys	4/21/2013	700 1	1 0	0	352	6.5	47.9	57	33.5	6.3	84	64.6
B	8 Cuy	yama	Central Coast Valleys	4/21/2013	800 1	1 0.01	0	774	6.7	57.5	42	34.4	7	70	63.9
8	8 Cuy	yama	Central Coast Valleys	4/21/2013	900 1	1 0.02	0	1199	7.2	68.4	33	36.1	5.2	69	63.5
8	B Cuy	vama	Central Coast Valleys	4/21/2013	1000 1	1 0.02	0	1569	7.2	73.1	26	35.9	4.3	34	63.6
B			Contraction of the second	4/21/2013	1100 1		0	1819	6.6	78.5	20	34.1	6	4	64.4
BI	1			4/21/2013	1200 11		0	1956	6	80.3	17	31.4	6.5	352	65,9
- 2	1														
B	-		Central Coast Valleys		1300 11		0	1958	6.1	82	16	32	7	350	67,6 Y
80	1			4/21/2013	1400 11	_	0	1838	6.3	82.7	17	32.8	8.5	343	69.1 Y
B	1			4/21/2013	1500 11	and the second sec	0	1596	6.4	82.6	17	33.1	11.3	345	70.5 Y
88	1		•	4/21/2013	1600 11		0	1252	7	82.1	19	35.3	10.8	347	71.9 Y
88	Cuy		And the second second second	4/21/2013	1700 11	1 0.02	Ö	839	7.4	80.8	21	36.8	10.4	344	73.2 Y
88	Cuy	yama	Central Coast Valleys	4/21/2013	1800 11	1 0.01	0	410	7.1	78.5	21	35.6	8.8	347	74.1 Y
88	Cuy	yama	Central Coast Valleys	4/21/2013	1900 11	1 0	0	48	7.3	73.5	26	36.6	4.3	79	74.5 Y
88	Cuy	yama	Central Coast Valleys	4/21/2013	2000 11	1 0	0	0	7.5	67.1	33	37	4	170	74.5 Y
84	Cuy	yama	Central Coast Valleys	4/21/2013	2100 11	1 0	0	0	6.7	63.1	34	34.3	4.6	197	74.2 Y
86	1		and the second sec	4/21/2013	2200 11		0	0	7.2	68.6	43	36	2.8	134	73.6 Y
BE	-			4/21/2013	2300 11		0	0	7.3	55.3	49	36.4	2.9	149	72.9 Y
BE				4/21/2013	2400 11	1	0	0	7.2	51.7	55	36	4.6	98	72.1 Y
BE			Contraction of the local data and the local data an	4/22/2013	100 11		0	0	6.5	49.5	54	33.5	4.6	112	71.3 Y
86	-						0	0	6.3	48	55	32.7	5.3	107	70.4 Y
	0.4)			4/22/2013	200 11		and the second sec					32.2			
BE	-		the second se	4/22/2013	300 11		0	0	6.2	47.5	55		5.1	95	69.5 Y
BE	-			4/22/2013	400 11	C	0	0	5.9	46.2	55	31.1	5.5	108	68.7
88	-		200 C	4/22/2013	500 11	S	0	0	5.9	45.6	57	31.2	6.1	104	67.8
88	Cuy	yama	Central Coast Valleys	4/22/2013	600 11	2 0	0	40	5.9	45.3	57	31	6.2	103	67
88	Cuy	yama 🛛	Central Coast Valleys	4/22/2013	700 11	2 0	0	362	6.3	50.8	49	32.6	8.5	97	66.2
88			Central Coast Valleys	4/22/2013	800 11	2 0.01	0	783	6.8	60.3	38	34.8	6.1	89	65.5
88	Cuy	yama i	Central Coast Valleys	4/22/2013	900 11	2 0.02	0	1202	7	69.8	28	35.4	4.5	95	65.1
88	-	and the second	and the set of the set	4/22/2013	1000 11		0	1557	6.9	76.4	22	35.1	4.2	139	65.3
88				4/22/2013	1100 11		0	1811	7.2	79	21	36.1	5.2	116	66.1
88				4/22/2013	1200 11		0	1935	7	80.9	20	35.5	5.8	357	67.5 Y
68	1			4/22/2013	1300 11		0		6.7	82	18	34.4	6.5	3	69.2 Y
			A CONTRACTOR OF THE OWNER					1956		251				352	70.6 Y
68	-			4/22/2013	1400 11	and the second second	0	1842	6.5	B3.1	17	33.4	5.5		
	Cuy	yama (and the second second	4/22/2013	1500 11		0	1600	7.1	83.9	18	35.6	7.2	344	72 Y
88				4/22/2013	1600 11	2 0.02	0	1248	7						73.5 Y
88	Cuy	the second se		4/22/2013	1700 11	1	0	839	6,4	82.9	18	36.5	9.1	345	74.8 Y

	-													- internet		
1.1	88 C	Suyama	Central Coast Valleys	4/22/2013	1800	112	0.01	0	408	6.1	79.4	18	31.8	10.2	347	75.7 Y
1-1	88 C	Cuyama	Central Coast Valleys	4/22/2013	1900	112	0	0	50	8.4	72.9	30	40.1	5.8	285	76.1 Y
3	88 C	Suyama	Central Coast Valleys	4/22/2013	2000	112	0	0	0	9	68.1	38	41.8	5.2	275	76.1 Y
1 3	88 C	Cuyama	Central Coast Valleys	4/22/2013	2100	112	0	0	0	9.7	64.1	47	43.7	4.5	261	75.7 Y
	88 C	Cuyama	Central Coast Valleys	4/22/2013	2200	112	0	0	0	9.1	61	50	42.2	3	220	75.2 Y
	88 C	Cuyama	Central Coast Valleys	4/22/2013	2300	112	0	0	0	8.3	57.4	52	39.7	4.3	131	74.5 Y
100	-	Cuyama		4/22/2013	2400	112	0	0	0	8.1	53.5	58	39.2	3.3	145	73.7 Y
1		Cuyama		4/23/2013	100		0	0	0	8.1	51.5	62	39.1	3.2	104	72.9 Y
-	2	Cuyama	Central Coast Valleys	4/23/2013	200		0	0	0	8.1	49.6	66	38.9	4.2	103	72 Y
1	1.0			4/23/2013				0		7.8	49.9	64	38.1	3.8	120	71.2 Y
11-12	100	Cuyama		Sec. 1	300	1.00	0		0	11						70.3 Y
1	20	Cuyama	Central Coast Valleys	4/23/2013	400	-	0	0	0	7.5	49.6	62	37.2	4.4	82	
	88 C	Cuyama	Central Coast Valleys	4/23/2013	500	113	0 Y	0	0	8.8	55.1 Y	46 Y	34.6 Y	8.2	147	69.5 Y
1 9	88 C	uyama	Central Coast Valleys	4/23/2013	600	113	0 Y	0	43	6.1	55.3 Y	41 Y	31.9 Y	8.2	146	68.7 Y
	88 C	Cuyama	Central Coast Valleys	4/23/2013	700	113	0.01 Y	0	368	6	61.1 Y	32 Y	31.4 Y	6,5	138	67.9 Y
1	68 C	uyama	Central Coast Valleys	4/23/2013	800	113	0.01	0	791	5.8	66,6	26	30.7	7	112	67.4
-	88 C	uyama	Central Coast Valleys	4/23/2013	900	113	0.02	0	1208	5.4	69.4	22	29.1	6.5	88	67.1
1	-	luyama		4/23/2013	1000		0.02	0	1567	5.7	73.1	21	30.4	4.9	31	67.2 Y
1.00	-			in the second se	1100		0.02	0	1821	6	75.3	20	31.7	8.2	87	68 Y
-	1	luyama		4/23/2013			and the second second				1992	19	30.9	8.6	109	69.3 Y
	10	uyama	Central Coast Valleys	4/23/2013	1200		0.03	0	1962	5.9	76.6	- 17 L				
1	88 C	uyama	Central Coast Valleys	4/23/2013	1300	113	0.03	0	1976	6.4	79	19	33.1	5.6	18	70.6 Y
	88 C	Cuyama	Central Coast Valleys	4/23/2013	1400	113	0.03	0	1854	6.3	80.7	18	32.7	6.1	354	71.8 Y
1	88 C	uyama	Central Coast Valleys	4/23/2013	1500	113	0.03	0	1611	6.1	81.4	17	32	7.6	345	73 Y
1	88 C	uyama	Central Coast Valleys	4/23/2013	1600	113	0.02	0	1261	6.1	81:7	16	31.8	8.2	355	74.4 Y
	88 Ci	uyama	Central Coast Valleys	4/23/2013	1700	113	0.02	0	838	6	80.8	17	31.7	8.6	346	75.6 Y
-	88 0	uyama	Central Coast Valleys	4/23/2013	1800	113	0.01	0	404	7.6	78.3	23	37.6	7.3	301	76.5 Y
1		Juyama	Central Coast Valleys	4/23/2013	1900		0	0	54	8.3	72	31	39.7	8	273	76.9 Y
1	-			12 Y Y 22 Y	2000			0	0	8.2	66.8	37	39.4	7.2	268	76.9 Y
-	-	uyama		4/23/2013			0								200	76.6 Y
1	S.	uyama	Central Coast Valleys	4/23/2013	2100		0	0	0	8.5	62.8	44	40.4	3.2		
1	-	luyama	State of the second state	4/23/2013	2200		0	0	0	8.2	58.6	49	39.5	3	202	76 Y
1	88 C	uyama	Central Coast Valleys	4/23/2013	2300	113	0	0	0	8.4	55.8	55	40	3.9	157	75.3 Y
	88 Ci	luyama	Central Coast Valleys	4/23/2013	2400	113	0	0	0	7.9	52.3	59	38.3	4.6	143	74.4 Y
1	88 C	uyama	Central Coast Valleys	4/24/2013	100	114	0	0	o	8	50.2	65	38.8	4.5	132	73.6 Y
-	-	uyama		4/24/2013	200	114	0	0	0	8	49.2	67	38.7	5	127	72.7 Y
-	Se 22	uyama	and the second sec	4/24/2013	300	-	0	0	0	7.6	48	66	37.4	4.7	92	71.8 Y
1	2			4/24/2013	400		0	0	0	7.4	47.5	66	36.7	4.7	107	70.9 Y
	-	luyama	and the second second								46.3	68	36.2	5.3	108	70.1 Y
1	23	luyama	Central Coast Valleys		500		0	0	0	7.2			tion - Article			
1. 10	88 Ci	uyama	Central Coast Valleys	4/24/2013	600	114	0	0	38	7.2	45.8	68	35.9	4.9	108	69.2 Y
	88 Ci	uyama	Central Coast Valleys	4/24/2013	700	114	0	0	270	7.5	50	61	37	6.4	94	68.4 Y
1 4	88 Ci	luyama	Central Coast Valleys	4/24/2013	800	114	0.01	0	620	8.1	57.5	50	39	6.8	110	67.7 Y
1	88 Ci	uyama	Central Coast Valleys	4/24/2013	900	114	0.01	0	1116	7.8	66.3	36	38.3	3.3	78	67.2
1	88 C	uyama	Central Coast Valleys	4/24/2013	1000	114	0.02	0	1588	7.8	70.1	31	38	5.7	291	67.2 Y
1	88 Ci	uyama	Central Coast Valleys	4/24/2013	1100	114	0.03	0	1706	8.4	70.5	33	40.1	8	288	67.8 Y
12-00	-	uyama		4/24/2013	1200		0.02	0	1204	8.6	72.5	32	40.6	7.3	284	69.1 Y
1	-				1300	100	0.03	0	2038	10	72.5	37	44.7	11.1	285	70.4 Y
-		luyama		4/24/2013	1.1.7								and the second s	12.8	282	71.4 Y
-	-	uyama		4/24/2013	1400	_	0.02	0	1516	10.8	69	45	46.6			
	88 C	luyama		4/24/2013	1500	114	0.02	D	1139	11.1	67.1	49	47.3	12.2	278	72.3 Y
1	88 Ci	uyama	Central Coast Valleys	4/24/2013	1600	114	0.01	0	722	11,5	64.7	55	48.3	11.6	282	73.2 Y
1	88 C.	uyama	Central Coast Valleys	4/24/2013	1700	114	0.01	0	448	11.8	61.4	63	48.8	10.7	277	73.7 Y
1	88 C.	uyama	Central Coast Valleys	4/24/2013	1800	114	0	0	192	11.7	57	74	48.6	10.8	282	73.9 Y
1	88 Cu	uyama	Central Coast Valleys	4/24/2013	1900	114	0	0	68	11.5	54	81	48.2	9,1	274	73.8 Y
-	88 C	uyama	Central Coast Valleys	4/24/2013	2000	114	0	0	0	11.3	51.6	86	47.7	7.8	269	73.4 Y
		uyama		4/24/2013	2100	· · · •	0	0	0	11.2	511	88	47.6	7.1	274	72.8 Y
	10		Central Coast Valleys		2200	C				11.2	51	88	47.6	6.5	268	72.1 Y
in the	1					-	0	D	0		and the second second			22		
-	-		Central Coast Valleys		2300		0	D	0	11.2	50.8	89	47.5	4.4	275	71.4 Y
	88 CL	uyama	Central Coast Valleys	4/24/2013	2400	114	0	0	0	11.2	50.8	88	47.5	4.2	269	70.8 Y
1	88 Cu	uyama	Central Coast Valleys	4/25/2013	100	115	0	0	0	11.2	50.9	88	47.5	4.3	293	70.1 Y
1	38 C.	uyama	Central Coast Valleys	4/25/2013	200	115	0	0	0	11	50.5	88	47.1	4.8	275	69.5 Y
-	88 CL	uyama	Central Coast Valleys	4/25/2013	300	115	0	0	0	10.9	49.9	89	46.8	4.3	268	69.1
2	1			4/25/2013	400	1.1	0	0	0	10.8	49.4	90	46.6	4.6	271	68.6
-	21.5		Central Coast Valleys		500		0	0	0	10.8	49.3	90	48.6	4.6	255	68.1
-	-		Central Coast Valleys		600		0	0	9	10.7	49.1	90	46.3	3.6	253	67.6
1			Central Coast Valleys	S. S. S. S. S.	700		0	0	75	10.7	49,2	90	46.4	3.5	264	67.1
1 10	11 2			Contraction of the		1.1					and the second se	88	46.7	2.4	288	66.7
-	in me		Central Coast Valleys		800		0	0	243	10.9	50,1					
	1.1		and the second se	4/25/2013	900	_	0.01	0	792	11.3	52.8	83	47.7	2.6	314	66.3
	38 CL	uyama	Central Coast Valleys	4/25/2013	1000	115	0.02	0	1503	11.6	57.4	72	48.4	3.5	317	66.1
	38 Cu	uyama	Central Coast Valleys	4/25/2013	1100	115	0.02	0	1764	10.9	63.2	55	48.8	3.6	173	66.5
	38 Cu	uyama	Central Coast Valleys	4/25/2013	1200	115	0.03	0	1900	10.2	67.8	44	45.1	4.2	302	67.5 Y
	18 Cu	uyama	Central Coast Valleys	4/25/2013	1300	115	0.03	0	1908	10	71.1	39	44.6	4.8	282	68.9 Y
		1		4/25/2013	1400		0.03	a	1792	10	73.9	35	44.5	5.2	282	70.1 Y
				4/25/2013	1500		0.02	0	1557	10.2	75.3	34	45.1	6.7	285	71.3 Y
4	14			4/25/2013	1600		0.02	0	1221	10.3	75.5	34	45.4	7	289	72.7 Y
			Contract Contract of Contract	4/25/2013		1				10.5	73.2	38	45.9	9.7	281	73.9 Y
					1700		0.01	0	816	in the second se			01011			74.7 Y
				4/25/2013	1800		0.01	0	395	10.5	68,1	45	45.7	9.3	277	
8	BE Cu	uyama	Central Coast Valleys	4/25/2013	1900		0	0	60	10.1	62.6	62	44.7	7.8	282	75.1 Y
8	18 Cu	uyama	Central Coast Valleys	4/25/2013	2000	115	0	D	0	9.9	58.5	59	44.2	6.7	279	75 Y
8	8 Cu	uyama	Central Coast Valleys	4/25/2013	2100	115	0	0	0	9.7	56.2	63	43.8	5	265	74.6 Y
8	B Cu	uyama	Central Coast Valleys	4/25/2013	2200	115	0	0	0	9.4	54.3	85	43	3.1	247	74 Y
8	-		and the second second second second	4/25/2013	2300		0	0	0	8.8	60.3	70	41.1	2.9	153	73.2 Y
8				4/25/2013	2400	111	0	0	0	8.6	48.3	74	40.5	1.3	187	72.4 Y
-	-			4/26/2013	100	1	0	0	0	8.4	47.4	75	39.9	3,4	174	71.5 Y
6	1.1					11							Contract Contract Contract	3.6	104	70.7 Y
-	a Cu			4/26/2013	200	1.1.1	0	0	0	8.4	46.7	78	40.2			
8	and the second second	THE REAL PROPERTY AND INCOME.	Central Coast Valleys	4/26/2013	300	-	0	0	0	8.5	47	78	40.4	4.7	129	69.8 Y
1.1	18 Cu	2.000														
1.1	-	2.000	Central Coast Valleys	4/26/2013	400	116	0	0	0	8.5	45.3	82	40.2	4.2	106	69 Y
8	18 Cu	uyama		4/26/2013	400 1		0	0	0	8.5	45.3 44.2	82 84	40.2 39.9	4.2	106	69 Y 68.2

1	B Cuyama	Central Coast Valleys	and the second s	700 1		0	363	9,4	49.2	79	42.9	5.8	83	66.7
8		Central Coast Valleys	4/26/2013	800 1	and the second second	0	779	10.7	57.4	66	46.2	4.5	87	66.1
8	1000	Central Coast Valleys	1.1.1.1.1.1.1	900 1		0	1195	11.1	64.3	54	47.4	3.6		65.8
8		Central Coast Valleys	4/26/2013	1000		0	1553	10.2	69.4	41	45	3.7	172	65.9
8		Central Coast Valleys	4/26/2013	1100 1		0	1803	9.1	73	33	42	5.2	3	68 Y
B		Central Coast Valleys	4/26/2013	1200 1		0	1933	7.6	76.3	24	37.4	7,4	357	69.6 Y
B		Central Coast Valleys	4/26/2013	1300 1	_	a	1945	7.2	77.5	22	36.1	8.6	4	70.9 Y
B		Central Coast Valleys	4/26/2013	1400 1		0	1830	7.5	78.4	23		9.3	354	72.1 Y
8	10000	Central Coast Valleys	4/26/2013	1500 1		0	1588	7.9	79	100	38.5		352	73.5 Y
B		Central Coast Valleys	4/26/2013	1600 1		0	1253	7.1	79	21	35.9	9.2	350	74.8 Y
8		Central Coast Valleys	4/26/2013	1700 1		0	848	7.3	78.1	22				74.0 T
B	and the second second	Central Coast Valleys	4/26/2013	1800 1		0	414	7.9	76.1	26	38,5	9.5	358	76.1 Y
8		Central Coast Valleys	4/26/2013	1900 1		0	65	9	71	35	41.7		123	76.2 Y
8		Central Coast Valleys	4/26/2013	2000 1		0	0	9,1	68.4	41	42.2	6.6	152	75.8 Y
8		Central Coast Valleys	4/26/2013	2100 1	1.1	0	0	9.3	62.8	47	42.5	6.6		75.3 Y
8		Central Coast Valleys	4/26/2013	2200 1		0	0	8.5	60.4	47	40.2	3.7	151	74.6 Y
8	-	Central Coast Valleys	4/26/2013	2300 1		0	0	9	56.B	57	41.7	4.8	145	73.9 Y
8		Central Coast Valleys	4/26/2013	2400 1		0	0	8.3	53.9	67	40.7	4,4	100	73.1 Y
8	11. 1	Central Coast Valleys	19.222.21	100 1		0	0		51.3 49.5	71	40.6	4.6	108	72.3 Y
8		Central Coast Valleys Central Coast Valleys	4/27/2013	200 1		0	0	8.6	48.4	72	39.7	4.7	117	71.4 Y
1.1			4/27/2013		and the second second	0	1			70	100	5.7	110	70.6 Y
8		Central Coast Valleys		400 1	2 C		0	8	47.9	73	38.8	5.3	113	69.8 Y
8		Central Coast Valleys Central Coast Valleys	4/27/2013	500 1		0	0	7.9	46.6	73	38.4	5.2	114	69 Y
				600 1			54		and some second	63	39.6	5.9	71	68.3 Y
8		Central Coast Valleys	4/27/2013	700 1		0	381	8.3	61.8		40.6	5.5	59	67.6 Y
8		Central Coast Valleys	4/27/2013	800 1		0	800	8.6	60.7	47	40.6	4	68	67.3 Y
8		Central Coast Valleys	4/27/2013	900 1		0	1216	8.9	68.8	37	41.4	3	1	67.5 Y
B		Central Coast Valleys	4/27/2013	1000 1		0	1571	8.6	74.7			4	96	67.5 T
8		Central Coast Valleys	4/27/2013	1100 1		0	1828	8	79.2	24	38.8	5.8	342	69.7 Y
8		Central Coast Valleys	4/27/2013	1200 1		0	1949	7.7	82.2	and the second sec	San and the second		342	69.7 Y 71.4 Y
B		Central Coast Valleys	4/27/2013	1300 1		0	1968	7.6	83.3	20	37.5	8.4	352	71.4 T
8		Central Coast Valleys	4/27/2013	1400 1	S	0	1846	7.5	84.1	19	37.2	9.8	352	74.1 Y
8		Central Coast Valleys	4/27/2013	1500 1	0.000	0	1607	8.3	84.3	21	39.6	9.8	346	74.1 Y
8	Cuyama	Central Coast Valleys		1600 1	10 million 1	0	1274	7.5	84	19			345	76.9 Y
B		Central Coast Valleys	4/27/2013	1700 1		0	861	7.3	82.9	19	36.4	12,1	355	70.9 T
8		Central Coast Valleys	4/27/2013	1800 1		0	423	7.6	80,5	21	37.4	10.3	53	78.1 R
8		Central Coast Valleys	4/27/2013	1900 1			72	8.2	76.1 Y	27 Y	39.4 Y			
8		Central Coast Valleys	4/27/2013	2000 1		0	0	9.2	68.2	39	42.2	5.7	141	78.1 Y
8		Central Coast Valleys	4/27/2013	2100 1	_		0	8.1	65.6 Y	38 Y	39.2 Y	3.6	134	77.2 Y
8		Central Coast Valleys	4/27/2013	2200 1			0	7.9	62.1 Y	42 Y	38.6 Y		134	76.4 Y
B		Central Coast Valleys	4/27/2013	2300 1		0	0	8.6	58.5	53	41.2	3.8	143	75.7 Y
8		Central Coast Valleys	4/27/2013	2400 1	A	0	0	8.9	57.1	56	41.4	4,9	103	
8		and the second second	4/28/2013	100 1		0	0	8.8	55.8	58	41.3	4,9	103	74.8 Y
8		Central Coast Valleys	4/28/2013	200 1		0	0	8.8	54.6	60	41.1	5.1	113	73.2 Y
B			4/28/2013	300 1		0	0	8.7	53	63	40.8	5.5	100	72.4 Y
8			4/28/2013	400 1		0	0	8.7	51	68	40.9	5.8	107	71.7 Y
BI			4/28/2013	500 1	2	0	0	8.7	1000		40.8	6.2	104	70.9 Y
8			4/28/2013	600 1	2.0	0	54	8.7	50	71		6.6	88	70.2 Y
B	2.2.	Central Coast Valleys Central Coast Valleys	4/28/2013	700 1		0	376	9.3	65.2 63.6	63 51	42.7	5	101	69.6 Y
B				800 1		0		10.3			46.9	4.7	86	69.3 Y
8	Cuyama	Central Coast Valleys	4/28/2013	900 1		0	1212	11	71.8	41	43.5	3.7	116	69.5 Y
80		Central Coast Valleys Central Coast Valleys	4/28/2013	1000 1		0	1569	9.6	82.6 Y	22 Y	39.8 Y	4.9	106	70.3 Y
-				1100 1	- the second sec						- And -	8.1	357	71.7 Y
BE	1210000	Central Coast Valleys Central Coast Valleys		1200 1		0	1949	7.3	84	18	36.5	7.7	1	73.3 Y
BE		100 000 E. 102 100 3.		1300 1	Charles and the	0	1968	6.8	85,2	17			346	74.6 Y
88			4/28/2013	1400 1		0	1859	5.9	85.2	14	31.3	8.5	340	74.0 T
BE			4/28/2013	1500 1	1	0	1625	5.9	85.6	14	31.3	9.4	343	75.8 R
BE			4/28/2013	1600 1		0	1278	6	86,4 85.2 V			10.8	355	78.4 R
88	1 million 1	and the second se	4/28/2013	1700 1			868	6.2	85.2 Y 82.9 Y	15 Y 17 Y	32.5 Y 33.8 Y	9.2	13	78.4 H
BE			()	1800 1	a chair		438	6.6	82.9 Y	24 Y	33.8 T 37.8 Y	7.2	87	79.1 R
88			4/28/2013 4/28/2013	1900 1			77	7.7	70.9 Y	24 Y 29 Y	37.6 Y 36.7 Y	6.3	145	79.4 R
88	1.1			2000 1 2100 1			0	7.4	70,7 Y	29 Y 31 Y	36.7 Y	5.8	145	79 R
88			4/28/2013 4/28/2013	2100 1		0	0	6.8	62 62	36	34.5 Y	4	121	78.4 R
85				2200 1		0		7.2	58.5	43	34.5	4.3	109	77.7 Y
88	1	-	4/28/2013	2300 1		0	0	7.7	55.0	51	37.7	5.1	110	76.9 Y
88			4/28/2013	100 1		0	0	7.4	53.5	53	36.8	4.7	102	76 Y
68			4/29/2013	200 1		0	0	7,4	52	57	37.3	5.9	97	75.1 Y
88	1		4/29/2013	300 1		0	0	7.3	51	57	36.3	5.5	118	74.2 Y
88			4/29/2013	400 1	1	0	0	7.2	50	59	36.1	5.6	109	73.4 Y
68	100	and the second of the second second second	4/29/2013	500 1		0	0	6.9	49	58	34.9	6	116	72.5 Y
88		and the second se	4/29/2013	600 1	10 mm	0	59	6.7	49.7	56	34.4	6.2	98	71.7 Y
88	1		4/29/2013	700 1	S	0	392	7.4	55	50	36.7	6.4	87	70.9 Y
88		Charles and the second	4/29/2013	800 1		0	810	7.7	65.2	36	37.9	6.5	78	70.2 Y
88			4/29/2013	900 1	0	0	1222	9.5	73.5	34	43.1	3.7	99	69.9 Y
88	10 million 1		4/29/2013	1000 11		0	1569	10	78	31	44.6	3.8	102	70.1 Y
88	Cuyama		4/29/2013	1100 1		0	1813	9.2	80.9	26	42.5	6.8	350	70.9 Y
88			4/29/2013	1200 1	· · · · · · · · · · · · · · · · · · ·	0	1945	9.2	82.3	24	42.4	8.2	343	72.4 Y
88	Cuyama	LAND CARE STORES	4/29/2013	1300 11		0	1964	8.4	83.9	21	39.9	7.8	353	74 Y
88	Cuyama		4/29/2013	1400 11		0	1863	7.1	85.3	17	35.6	7.1	351	75.4 R
- 10	Cuyama	Central Coast Valleys	4/29/2013	1400 1		0	1625	6.4	86.6	15	33.3	7.5	354	76.6 R
100		-	4/29/2013	1600 11		0	1282	5.9	85.9	14	31.2	10.5	348	77.9 R
88	Cuyama	- Junior Guan Valleys		1000 1	A second second				Contract of the second	the second se				
88	Cuyama		4/29/2013	1200 11	9 0.03 9	0	873	6.4	86 Y	15 Y	33.3 Y	10.6	348	79.118
		Central Coast Valleys	4/29/2013	1700 11	and the second s		873 447	6.4 6.9	86 Y 84 Y	15 Y 17 Y	33.3 Y 34.9 Y	10.6	348	79.1 R 79.9 R

	-										character of the second s			
8	8 Cuyan	na Central Coast Valleys	4/29/2013	2000 11	9 0 Y	0	0	9	75.9 Y	30 Y	41.9 Y	3.5	300	80.3 R
B	8 Cuyan	and the second se	a contract of the	2100 11	9 0 Y	0	0	9.2	71 Y	35 Y	42.3 Y	3	267	79.9 R
B	B Cuyan	na Central Coast Valleys	4/29/2013	2200 11	9 0 Y	0	0	7.9	65.4 Y	37 Y	38.5 Y	3.4	217	79.4 R
8	8 Cuyan	na Central Coast Valleys	4/29/2013	2300 11	9 0 Y	0	0	8.2	63.4 Y	41 Y	39.3 Y	3.9	123	78.8 R
8	B Cuyan	na Central Coast Valleys	4/29/2013	2400 11	9 0 Y	0	0	9.5	59.9 Y	54 Y	43.2 Y	3.4	131	78 R
8	B Cuyan	na Central Coast Valleys	4/30/2013	100 12	0 0 Y	0	0	9.3	58.3 Y	56 Y	42.6 Y	4.1	124	77.2 R
8	8 Cuyan	na Central Coast Valleys	4/30/2013	200 12	0 0 Y	0	0	9,4	58.4 Y	61 Y	42.9 Y	3.6	101	76.4 Y
8	5		4/30/2013	300 12		0	0	9.2	54.4	63	42.3	5.7	112	75.6 Y
8	5		4/30/2013	400 12		0	0	8.9	53.3	64	41.5	5.5	108	74.8 Y
8	1			500 12		0	0	8.5	52.5	63	40.3)	4.8	126	74 Y
71	2	and a second second second second second	12000						1011		38.6	2.6	173	73.2 Y
8	1.1		4/30/2013	600 12		0	64	8	51.7	61	C. S.			
8	1.000	na Central Coast Valleys	4/30/2013	700 12		0	406	8.8	57.1	55	41.1	2.7	149	72.5 Y
88	B Cuyan	na Central Coast Valleys	4/30/2013	800 12	0 0.01	0	820	9.2	65.5	43	42.3	4.6	81	71.9 Y
84	B Cuyan	na Central Coast Valleys	4/30/2013	900 12	0 0.02 Y	0	1228	9.1	74.1 Y	32 Y	42 Y	9	64	71.6 Y
88	B Cuyan	na Central Coast Valleys	4/30/2013	1000 12	0 0.03	0	1567	9.5	75.8	31	43.3	8.7	73	71.8 Y
86	B Cuyan	na Central Coast Valleys	4/30/2013	1100 12	0 0.03	0	1792	9.4	76.4	30	42.8	8.5	342	72.5 Y
88	B Cuyan	na Central Coast Valleys	4/30/2013	1200 12	0 0.03	0	1947	9.1	78.1	28	42.2	7.4	349	73.6 Y
88	B Cuyan	na Central Coast Valleys	4/30/2013	1300 12	0 0.03	0	1951	9	79.8	26	41.8	7.7	336	75.1 R
BE	B Cuyan	na Central Coast Valleys	4/30/2013	1400 12	0 0.03	0	1834	8.5	81.2	23	40.3	7	357	76.2 R
88			4/30/2013	1500 12	in the second se	0	1596	8.7	82.2	23	41	9.1	345	77.2 R
88			4/30/2013	1600 12		0	1259	8.6	81.6	23	40.6	11.5	351	78.4 R
BE			4/30/2013	1700 12		0	818	8	80.5	22	38.7	10.5	341	79.4 R
-	1.00	and a second second second	Company of		and the second sec	15						100		
86	1		4/30/2013	1800 12		0	430	6.8	78.1	21	34.6	11.4	339	80.1 R
B			4/30/2013	1900 12		0	62	10	71.6	38	44.5	7,2	298	80.3 R
86			4/30/2013	2000 12		0	0	11.8	65.5	55	48.9	5.5	276	80.2 R
86	B Cuyan	na Central Coast Valleys	4/30/2013	2100 12	0 0	0	0	11.8	62,1	62	48.8	5.6	270	79.8 R
88	Cuyan	na Central Coast Valleys	4/30/2013	2200 12	0 0	0	0	11.6	59.1	68	48.4	3.7	276	79.2 R
88	Cuyan	na Central Coast Valleys	4/30/2013	2300 12	0 0	0	0	10.7	55.4	72	46.4	3.2	180	78.5 R
BE	Cuyan	na Central Coast Valleys	4/30/2013	2400 12	0 0	0	0	9.9	58.2	64	44.4	5.1	123	77.7 Y
88	Cuyan	na Central Coast Valleys	5/1/2013	100 12		0	0	7	57.3	44	35.5	7.6	152	76.8 Y
BE			5/1/2013	200 12		0	0	5.8	57.7	36	30.8	в	151	75.9 Y
BE			5/1/2013	300 12		0	0	5.4	56	35	28.9	8.3	142	75 Y
88			1	400 12		0	0	5	54.2	35	27.2	8.2	148	74.2 Y
			10 M 10 M 10						122	33	25.7	7.5	145	73.4 Y
88			1	500 12		0	0	4.7	54.4		and the second second			
86	1.000		5/1/2013	600 12		0	66	4.7	53.2	34	25.4	5.6	148	72,6
88	Cuyan	na Central Coast Valleys	5/1/2013	700 12	0.01	0	403	5,5	54.9	37	29.5	5.3	53	71.6
86	Cuyan	na Central Coast Valleys	5/1/2013	800 12	0.01	0	815	5.4	62	28	28.8	5.3	67	71.2
66	Cuyan	na Central Coast Valleya	5/1/2013	900 12	0.02	0	1225	4.1	68.2	17	22.4	4.2	135	70.9
88	Cuyan	na Central Coast Valleys	5/1/2013	1000 12	0.02	0	1576	4	72,1	15	21.5	4.3	148	71
88	Cuyan	na Central Coast Valleys	5/1/2013	1100 12	0.03	0	1823	4.1	75.7	14	22.4	6.9	96	71.7
80	Cuyan	na Central Coast Valleys	5/1/2013	1200 12	0.03	0	1960	4.4	78.6	13	24	9.7	101	72.8 Y
88			5/1/2013	1300 12		0	1964	4.6	80.4	13	25	8.9	94	74.2 Y
86	/			1400 12		0	1848	5	81.4	14	27.1	7.7	357	75.2 Y
				1500 12		0	1609	5.1	82,1	14	27.4	7.7	13	76.1 Y
88		Participation of the second	5/1/2013				(area)				and the second s		80	77.3 Y
88	1.000		5/1/2013	1600 12		0	1269	5.2	82.5	14	27.8	9.1		
88		A CONTRACT OF A	5/1/2013	1700 12		0	860	5.2	81.3	14	27.9	9,4	75	78.3 Y
88	Cuyan	na Central Coast Valleys	5/1/2013	1800 121	0.01	0	431	5.3	79.4	15	28.4	7.9	73	79 Y
88	Cuyan	na Central Coast Valleys	5/1/2013	1900 121	0	0	74	6.4	74.3	22	33.2	4.5	66	79.2 Y
88	Cuyan	na Gentral Coast Valleys	5/1/2013	2000 121	0	0	0	6.4	69.6	28	33.3	3,6	100	79.2 Y
88	Cuyan	na Central Coast Valleys	5/1/2013	2100 121	0	0	0	6.8	64,4	33	34.5	4.5	164	78.8 Y
88	Cuyar	na Central Coast Valleys	5/1/2013	2200 121	0	0	0	5.5	61.3	30	29.5	3.9	173	78.2 Y
88	Cuyam	na Central Coast Valleys	5/1/2013	2300 121	0	0	0	6.4	57.5	39	33	4.3	126	77.5 Y
88	1000	The second	and the second sec	2400 121	0	0	0	6.5	53.1	47	33.5	5.2	117	76.7 Y
	Сиуал			100 123		0	0	6.3	50.5	51	32.9	5.8	101	75.9 Y
88			5/2/2013	200 122	and the second sec	0	0	6.2	48.1	54	32.4	4.9	106	75 Y
	-							6.3	46.9	57	32.6	4.1	96	74.1 Y
88			5/2/2013	300 122		0	0					5.2	94	73.2
88	-		5/2/2013	400 122	in the second se	0	0	6	45.3	58	31.6			
68		A CONTRACTOR OF A CONTRACTOR O	5/2/2013	500 122		0	0	5.3	44.2	53	28.3	5.6	101	72.4
88			1/20/04/1	600 122		0	73	5,6	44.7	56	30	4.6	100	71.5
88	Cuyam		in the second	700 122	0.01	0	427	6.3	52	47	32.6	5.9	107	70.6
68	Cuyam			800 122	0.01	0	854	5.2	62.8	27	28.1	5.4	108	69.9
88	Cuyam	a Central Coast Valleys	5/2/2013	900 122	0.02	0	1272	3.6	72.3	13	19.1	4	98	69.6
88	Cuyam	a Central Coast Valleys	5/2/2013	1000 122	0.02	0	1617	3.2	78.2	10	16.4	5	118	69.7
88			- C. S. G. S. S. I.	1100 122	0.03	0	1863	3.5	81,9	9	18.3	6.7	81	70.5
88				1200 122		0	1987	3.3	82.8	9	17	12.4	348	71.8
88	1		5/2/2013	1300 122		0	1982	3.3	83.7	8	17.2	12.6	350	73.3 Y
88			5/2/2013	1400 122		0	1861	3.2	84.3	8	16.4	12.7	356	74.5 Y
88			5/2/2013	1500 122			1658	2,9	84.4	7	14.2	12.1	354	75.6 Y
						0						11.6	354	78.7 Y
68			5/2/2013	1600 122		0	1335	2.7	84.3	7	12.7			
68			5/2/2013	1700 122	and the second	0	927	2.6	83.3	7	11.4	11.3	349	77.7 Y
88	and the second second		5/2/2013	1800 122	0.01	O	490	2.4	61.8	7	10.3	10.4	354	78.4 Y
88	Cuyam	a Central Coast Valleys	5/2/2013	1900 122	0	0	98	2.2	78	7	8.1	7.1	357	78,7 Y
88	Cuyam	a Central Coast Valleys	5/2/2013	2000 122	0 R	0	0	2.3	72.9	8	9.4	3.4	19	78.6 Y
88	Cuyam	a Central Coast Valleys	5/2/2013	2100 122	OR	0	0	2.5	64.1	12	11	4.9	199	78.2 Y
88	Cuyam	a Central Coast Valleys	5/2/2013	2200 122	OR	Ó	0	2.5	69.9	14	10.9	4	165	77.6 Y
88	in minute		5/2/2013	2300 122		0	0	3	56.2	19	14.8	3.2	146	76.8 Y
88			5/2/2013	2400 122		0	0	4.2	53.3	30	22.8	4.1	121	76 Y
88			5/3/2013	100 123		0	0	4.5	51	35	24.4	6	105	75.1 Y
			5/3/2013	200 123		0	0	4.3	49.1	36	23.2	4.7	113	74.2
88								4.3	48.1	40	24.8	5.4	108	73.3
88			5/3/2013	300 123	i de la compañía de	0	0	the second se	28 June 199		and the second s	8.5	108	73.5
88			5/3/2013	400 123		0	0	4.3	47.4	38	23.3			
88			5/3/2013	500 123		0	0	4.3	46.9	39	23.2	5.4	117	71.6
88	Cuyam	a Central Coast Valleys	5/3/2013	600 123	0	0	78	4.6	47.8	41	25.2	5.6	96	70.8
				700 100	0.01	0	427	4.8	52.8	35	26.2	6.5	93	70.1
88	Cuyam	a Central Coast Valleys	5/3/2013	700 123	0.01		427	4.0	02.0	33	20.2	0.0	55	69.5

	88 Cu	uyama	Central Coast Valleys	5/3/2013	900 1	123 0.03	2 0	1260	6.3	72.2	23	32.7	3.8	87	69.2
	68 Cu	uyama	Central Coast Valleys	5/3/2013	1000 1	123 0.03	2 0	1613	5.4	78	16	28.9	4.4	146	69.4
E	88 Cu	uyama	Central Coast Valleys	5/3/2013	1100 1	23 0.03	0 0	1850	4.7	81.2	13	25.7	6.1	139	70.3
1	88 Cu	uyama	Central Coast Valleys	5/3/2013	1200 1	23 0.03	3 0	1991	4.5	83.6	11	24.5	4.9	307	71.6
1	180	uyama	Central Coast Valleys	- contract to the	1300 1			2005		84.8	11	23.7	6.4	347	73.2 Y
1	_		and the second provide second			224			4.3			- 26			
-	-	uyama		5/3/2013	1400 1			1902	4.2	85.9	10	22.8	6.2	346	74.6 Y
1	88 Cu	uyama	Central Coast Valleys	5/3/2013	1500 1	23 0.03	3 0	1656	4.1	88.5	10	22.4	7.3	340	75.8 Y
	88 Cu	uyama	Central Coast Valleys	5/3/2013	1600 1	23 0.03	2 0	1297	4.6	86.7	11	24.9	9.2	353	77.2 Y
	88 Cu	uyama	Central Coast Valleys	5/3/2013	1700 1	23 0.03	2 0	880	5	85.3	12	27.3	10	347	78.5 Y
	1	uyama	Central Coast Valleys	and the second	1800 1			449	4.8	83.4	12	26.2	10.5	358	79.4 Y
	1				1	241		and the second sec		1					
-	1	uyama		5/3/2013	1900 1	2.	1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m - 1 m	88	5.7	78.3	17	30.2	6.6	48	79.8 Y
5	88 Cu	uyama	Central Coast Valleys	5/3/2013	2000 1	23 0	0 0	0	6.1	70.7	24	32	5,3	157	79.8 Y
1	88 Cu	uyama	Central Coast Valleys	5/3/2013	2100 1	23 (0 0	0	5.1	68.2	21	27.4	2.8	224	79.5 Y
	88 Cu	uyama	Central Coast Valleys	5/3/2013	2200 1	23 0	0 0	0	5	64.7	24	27.1	3.4	218	78.9 Y
	11	uyama	a second s	5/3/2013	2300 1			0	5.7	59.1	33	30.3	3.3	157	78.2 Y
	1							the second se		1000					
6	88 Cu	uyama	Central Coast Valleys	5/3/2013	2400 1	23 (0 0	0	6,1	57	38	31.9	4.8	122	77.4 Y
	38 Cu	uyama	Central Coast Valleys	5/4/2013	100 1	24 0	0 0	0	6.2	55.3	41	32.2	6.2	116	76.6 Y
6	88 Cu	uyama	Central Coast Valleys	5/4/2013	200 1	24 0	0 0	0	6.1	53.2	44	31.8	6.1	107	75.7 Y
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	300 1	24 0	0 0	0	5.9	52.4	44	31	4.9	111	74.9 Y
	10.00	uyama	Central Coast Valleys	5/4/2013	400 1	24 0	0	0	6.1	60	49	31.9	5.2	113	74 Y
1.			Contraction and the second second second second	and the second second	and the second sec		the second se				and the second second			101	73.2 Y
- 17		uyama		5/4/2013	500 1	_		0	6,1	49.1	51	31.9	5,8		
8	58 Cu	uyama	Central Coast Valleys	5/4/2013	600 1	24 0	0	74	6.2	49,2	52	32.2	6.1	108	72.4
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	700 1	24 0.01	0	409	6.4	55.9	42	33.2	6.7	92	71.7
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	800 1	24 0.01	D	824	6.4	66.3	29	33.2	7.3	76	71
		uyama	1	5/4/2013	900 1			1229	6.6	74.9	22	34	5.6	87	70.7
		-		5/4/2013		- A.S.	the second se	1584		81.2	17	31.8	3.8	31	70.9
_	<u></u>	uyama			1000 1				6.1			2.20 TA			
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	1100 1			1830	5.7	82.5	15	30.2	6.7	293	71.7
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	1200 1	24 0.03	i D	1958	5.4	84.1	14	29.1	6.4	286	73.1 Y
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	1300 1	24 0.03	0	1953	5.6	84.8	14	30	7	292	74.8 Y
-		uyama		5/4/2013	1400 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1850	5.8	85	14	30.8	9.2	286	76.1 Y
-				1001120100	1 2 2 2 1 2	21				131				287	77.3 Y
-	1	uyama	Central Coast Valleys	5/4/2013	1500 1	15 J. 8125.1		1596	7,3	83.7	18	36.3	10,1		
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	1600 1	24 0.02	0	1254	8.1	82.8	21	39.2	9.4	253	78,7 Y
	38 Cu	uyama	Central Coast Valleys	5/4/2013	1700 1	24 0.02	0	848	7.3	80.8	20	36.5	13.3	230	79.9 Y
8		uyama	Central Coast Valleys	5/4/2013	1800 1	24 0.01	0	434	7.8	78.7	25	38.1	11.4	242	80.6 Y
	10	uyama		5/4/2013	1900 1		0	87	8.4	71.3	32	40	7.4	260	80.9 Y
	1.000		and the second sec	der ter der der der		-								262	80.8 Y
-	12	uyama	Central Coast Valleys	5/4/2013	2000 1	24 0	0	٥	9.2	65.6	43	42.4	7.4		
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	2100 1	24 0	0	0	10	61.1	55	44.6	5.7	269	80.3 Y
8	38 Cu	uyama	Central Coast Valleys	5/4/2013	2200 1	24 0	0	0	10.1	57.2	63	44.8	3	280	79.6 Y
8	18 Cu	uyama	Central Coast Valleys	5/4/2013	2300 1	24 0	0	0	10.1	53.3	73	44.7	4	282	78.8 Y
	-			5/4/2013	2400 1	S		0	10.3	49,5	86	45.4	5.5	280	78.3 Y
1.0	100	uyama	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						1.200						
8	38 Cu	uyama	Central Coast Valleys	5/5/2013	100 1	25 0	0	0	10.3	48.2	89	45.2	5.3	272	77.7 Y
8	8 Cu	uyama	Central Coast Valleys	5/5/2013	200 1	25 0	0	0	10	47.5	89	44.6	3	261	76.4 Y
8	18 Cu	uyama	Central Coast Valleys	5/5/2013	300 1	25 0	0	0	8.6	44.7	86	40.8	2	180	75.2 Y
8	18 Cu	uyama	Central Coast Valleys	5/5/2013	400 1	25 0	0	0	7.6	42.2	83	37.5	1.8	182	74.3 Y
1	1	<u> </u>		5/5/2013	500 1			0	7.4	41.4	84	36.9	2.4	177	73.5 Y
	2.50	yama	and the second sec	(and a second									
.8	B Cu	uyama	Central Coast Valleys	5/5/2013	600 1	25 0	0	54	7.7	41.7	85	37.7	2.6	213	72.6
8	8 Cu	iyama	Central Coast Valleys	5/5/2013	700 1	25 0	0	227	9.3	46.8	85	42.6	1.6	251	71.7
B	8 Cu	yama	Central Coast Valleys	5/5/2013	800 1	25 0.01	0	665	10.2	50.8	81	45.1	4.6	289	70.9
8	8 Cu	yama	Central Coast Valleys	5/5/2013	900 1	25 0.01	0	1066	10.2	55,9	67	45	3.5	282	70.4
	1	yama	and the second s	5/5/2013	1000 1		0	1397	8.8	63.8	43	41.1	9	115	70.3
	<		Contraction of the second s						and the second second	and the second sec		38.2	18.8	134	70.6
8	2	yama	leanna eann raona	5/5/2013	1100 1			1894	7.8	68.9	32	and a second			
8	B Cu	iyama		5/5/2013	1200 1	25 0.03	0	1807	7.9	69	33	38.6	20.4	143	71.3
8	B Cu	yama	Central Coast Valleys	5/5/2013	1300 1	25 0.03	0	1766	7.8	69.1	32	38.2	17	183	72
8	8 Cu	iyama	Central Coast Valleys	5/5/2013	1400 1	25 0.03	Ó	1873	8.1	68.3	34	38.9	19.8	156	72.6
	- A -	yama	A second s	5/5/2013	1500 1		0	1619	8.3	66.1	38	39.8	23.2	153	73.1
-	-					A						38	18.1	154	73.7
	-	iyama		5/5/2013	1600 1	121		1097	7.8	64.7	37				
B	8 Cu	iyama		5/5/2013	1700 1	25 0.01	0	396	7.8	61.9	42	38.3	16,5	137	74.2
8	8 Cu	yama	Central Coast Valleys	5/5/2013	1800 1	25 0.01	0	188	8	60.1	45	38.8	12,4	145	74.3
8		iyama	Central Coast Valleys	5/5/2013	1900 1	25 0	0	53	8.1	58.5	48	39.1	12.5	143	74.2
	1	yama		5/5/2013	2000 1			0	8.1	56.9	51	39	10.4	143	73.9
8	-	yama		5/5/2013	2100 1			0	8	55.9	52	38.7	11.5	138	73.5
-					X	1 m					-	and the second second			
	1 mar	iyama	Central Coast Valleys	5/5/2013	2200 1			0	8.1	55.8	53	39.1	8.7	139	73
8	8 Cuj	yama	Central Coast Valleys	5/5/2013	2300 1	25 0	0	0	8.2	54.9	56	39.5	11.2	131	72.5
8	8 Cu	yama	Central Coast Valleys	5/5/2013	2400 1	25 0	0	0	8.3	53,7	59	39.7	9.5	127	71.9
B	8 Cu	iyama	Central Coast Valleys	5/6/2013	100 1	26 0	0	0	8.6	52.4	64	40.5	6.9	129	71.3
8	-	yama		5/6/2013	200 1	1		0	8.2	52.5	61	39.3	6.4	149	70.8
- 2	4		the second second second second							The Part of the Pa		39		342	70.2
8		iyama	Central Coast Valleys		300 12			0	8.1	51.4	62		2.2		
B	8 Cuy	iyama	Central Coast Valleys	5/6/2013	400 13	26 0	0	0	8.2	53	60	39.5	2.9	311	69.7
B	8 Cuy	yama	Central Coast Valleys	5/8/2013	500 12	26 0	0	0	8,4	51.6	65	40.1	3.4	357	69.2
8	8 Cu	yama	Central Coast Valleys	5/6/2013	600 13	26 0	0	20	8.6	52	65	40.5	2.8	283	68.7
B	1.200	yama		5/6/2013	700 12	1.		242	10	52.1	76	44.6	9.6	87	68.3
-	1					-						1.00	6.9	105	68
B	-		and the second se	5/6/2013	800 13			363	10.4	53.3	75	45.5			
8	8 Cuy	yama	Central Coast Valleys	5/6/2013	900 13	26 0.01	0	564	10.2	56	66	45	2.5	128	67.7
8	8 Cuy	yama	Central Coast Valleys	5/6/2013	1000 12	26 0.01	0	628	9.7	58	59	43.8	5.1	188	67.6
B	8 Cuy		Central Coast Valleys	5/6/2013	1100 12		0	1268	8.8	61	48	41.3	5.9	212	67.6
6	in the second			5/8/2013	1200 12		0	1437	8.2	63.7	41	39.4	11.6	202	68.1
64		0.000	and the second se	5/8/2013	1300 12	C		1555	7.9	64.5	38	38.5	8.1	199	68.7
Bi	8 Cuy		Contraction of the second second second	5/6/2013	1400 12	26 0.02	0	1181	8.1	65	38	39.1	8.4	176	69.4
B	8 Cuy	yama	Central Coast Valleys	5/8/2013	1500 12	26 0.02	0	1681	8.1	66.4	37	39.1	8.4	194	70.1
B	8 Cuy	yama	Central Coast Valleys	5/6/2013	1600 12	26 0.02	0	1308	8,1	68.3	37	39.1	11.4	214	70.9
BI	200			5/6/2013	1700 12	and a second second	0	893	8	65.2	38	38.8	11.4	211	71.8
9	-									2010		100000			
88				5/6/2013	1800 12	24 C	0	475	8	63.3	41	38.9	11.1	183	72.5
-	al Curv	yama	Central Coast Valleys	5/6/2013	1900 12	26 0	0	88	8.1	59.2	47	39.2	10,1	179	72.9
B							0					221	22	the second se	70.0
BL		yama	Central Coast Valleys	5/6/2013	2000 12	26 0	0	0	8.1	55.7	53	39	7.5	180	72.8
BE				5/6/2013	2100 12			0	8.1	55.7 54.2	53	39	6.6	180	72.8

-														
8	Cuyama	Central Coast Valleys	5/6/2013	2200		0 0	0	8.1	54.7	55	38.9	8.2	159	72
8	Cuyama	Central Coast Valleys		2300	26	0 0	0	B	54.8	54	38.7	6.5	140	71.4
8	Cuyama	Central Coast Valleys	5/6/2013	2400	26	0 0	0	8.3	53.9	59	39.8	3	187	70.9
8	Cuyama	Central Coast Valleys	5/7/2013	100 1	27	0 0	0	8.9	51.4	68	41.4	3,5	269	70.4
B	Cuyama	Central Coast Valleys	5/7/2013	200 1	27	0 0	0	8.2	48.1	71	39.3	1.8	165	69.9
8	Cuyama	Central Coast Valleys	5/7/2013	300	27	0 0	0	8.1	48.3	70	39.1	2.3	271	69.4
8	0.2	Central Coast Valleys	a management of the second of	400 1	27	0 0	0	8.4	49.6	70	40.2	1.3	52	68.8
B	-	Central Coast Valleys	5/7/2013	500 1		0 0	0	8.5	50.4	68	40.2	2.6	42	68.3
B	Calenna	Central Coast Valleys	5/7/2013	600 1		0 0	43	8.5	50.8	67	40.3	3.4	329	67.8
	1000	Central Coast Valleys	5/7/2013		S							3.9	308	67.4
B				700 1		0 0	418	9	52.3	67	41.7			
B		Central Coast Valleys	5/7/2013	800 1	() () () () () () () () () ()	0.01 0	855	9.2	55.5	61	42.4	3.8	359	67
84	Cuyama	Central Coast Valleys	5/7/2013	900 1	27 0	0	1260	8.7	58	53	40.8	3.4	29	67
BI	Cuyama	Central Coast Valleys	5/7/2013	1000 1	27 0	0.02	1592	8.4	60.6	47	40	4.6	314	67.3
8	Cuyama	Central Coast Valleys	5/7/2013	1100 1	27 0	0.01 0	876	8.3	61.2	45	39.8	7.1	328	68.2
8	Cuyama	Central Coast Valleys	5/7/2013	1200 1	27 0	0 10.	889	8.1	61.8	43	39.1	6.4	327	69.2
8	Cuyama	Central Coast Valleys	5/7/2013	1300 1	27 0	01 0	568	8.1	61.7	43	39.2	5.7	291	70.2
B		Central Coast Valleys	5/7/2013	1400 1		0 0	310	8.5	60.8	47	40.5	6.3	284	70.8
8			5/7/2013	1500 1		.01 0	578	8.8	62.3	46	41.2	4.9	271	71.2
	Cuyama	Central Coast Valleys			100								325	71.4
8	Cuyama	Central Coast Valleys	1222	1600 1		01 0	771	8.8	63.9	44	41.3	5.3		
8	Cuyama	Central Coast Valleys	5/7/2013	1700 1		0.01 0	929	8.8	65.1	41	41.2	6.2	355	71.5
88	Cuyama	Central Coast Valleya	5/7/2013	1800 1	27 0	.01 0	391	8.4	64	41	39.9	6.8	354	71.8
B	Cuyama	Central Coast Valleys	5/7/2013	1900 1	27	0 0	38	8.9	60.6	49	41.5	5.8	18	71.9
84	Cuyama	Central Coast Valleys	5/7/2013	2000 1	27	0 0	0	9.2	56.5	59	42.5	6.7	271	71.8
8		Central Coast Valleys	5/7/2013	2100 1		0 0	0	8.6	55	58	40.6	7.1	280	71.5
8		Central Coast Valleys	5/7/2013	2200 1		0 0	0	9	53.6	64	41.8	7.7	272	71
B		Central Coast Valleys	5/7/2013	2200 1		0 0	0	9.2	51.5	71	42.3	6.8	259	70.5
									and the second se					
-	Cuyama	Central Coast Valleys		2400 1	-	0 0	0	9	49.7	74	41.7	3.8	253	70
80	Cuyama	Central Coast Valleys	5/8/2013	100 1		0 0	0	8.7	47.6	77	40.8	1.1	321	69.4
88	Cuyama	Central Coast Valleys	5/8/2013	200 1	28	0 0	0	8.1	44.9	80	39.1	2.9	165	68.8
88	Cuyama	Central Coast Valleys	5/8/2013	300 1	28	0 0	0	8.8	47.4	79	41.3	3	124	68.1
84	100 Contraction 100	Central Coast Valleys	5/8/2013	400 1	28	0 0	0	8.8	47.3	79	41.1	4.7	100	67.5
BL	1	Central Coast Valleys	Contraction of the	500 1		0 0	0	8,7	48.5	75	41	4.1	138	66.9
86	Cuyama	Central Coast Valleys		500 1	_	0 0	33	8.7	49.4	73	41	3.5	127	66.4
BL		Central Coast Valleys	5/8/2013	700 1		0 0	178	9	51.2	70	41.8	2.2	82	66
		the strain of the state			20						i and a second			
88	Cuyama	Central Coast Valleys	and the second	800 1	28 0	.01 0	591	9.2	54.9	62	42.2	3.1	16	65.7
88	Cuyama	Central Coast Valleys	5/8/2013	900 1	28 0	.01 0	1138	8.7	59	51	40.9	3.3	103	65.5
85	Cuyama	Central Coast Valleys	5/8/2013	1000 1	28 0	.02 0	1619	9.2	63	47	42.3	4.5	15	65.7
BE	Cuyama	Central Coast Valleys	5/8/2013	1100 1	28 0	.01 0	966	9.7	63.6	48	43.6	6,1	354	66.4
BE	Cuyama	Central Coast Valleys	5/8/2013	1200 1		.02 0	1189	9.6	64.9	46	43.4	6.4	8	67.4
88	Cuyama	Central Coast Valleys	5/8/2013	1300 1		.01 0	466	9.4	64.4	46	43	6.1	4	68.5
	1222		5/8/2013		1.1.1				65.8	47	44.7	7	347	69.3
BE	Cuyama	Central Coast Valleys	1202	1400 1	1.1	.02 0	1103	10.1						69.9
88	Cuyama	Central Coast Valleys	5/8/2013	1500 1		.01 0	837	10	66.7	45	44.4	6.5	359	
88	Cuyama	Central Coast Valleys	5/8/2013	1600 1	28 0	.01 0	319	10.2	65.4	48	45	9.2	353	70.5
88	Cuyama	Central Coast Valleys	5/8/2013	1700 1	28	0 0	177	10.4	64.5	50	45.5	8	357	71
88	Cuyama	Central Coast Valleys	5/8/2013	1800 1	28	0 0	93	11.1	61.6	60	47.4	7.1	299	71.3
86	Cuyama	Central Coast Valleys	5/8/2013	1900 1	28	0 0	21	11	58.4	66	47.1	7.4	279	71.3
88	Guyama	Central Coast Valleys	5/8/2013	2000 1		0 0	0	10.6	66.3	69	46.1)	7.7	280	71.2
88	Cuvama	Central Coast Valleys	5/8/2013	2100 1	-	0 0	0	10.3	55	89	45.2	6.8	274	70.9
.17							2		10 To 1					
BE	Cuyama	Central Coast Valleys	5/8/2013	2200 1		0 0	0	9.5	53.6	68	43.3	5.2	267	70.5
88	Cuyama	Central Coast Valleys	5/8/2013	2300 1	28	0 0	0	9.1	52.7	67	42.1	4	256	70.1
BB	Cuyama	Central Coast Valleys	5/8/2013	2400 1	28	0 0	D	9.2	52.8	68	42.4	1.9	280	69.5
88	Cuyama	Central Coast Valleys	5/9/2013	100 1	29	0 0	0	9.4	52.2	71	42.9	2.5	111	69
88	Cuyama	Central Coast Valleys	5/9/2013	200 1	29	0 0	0	9.8	51.8	74	43.9	2.6	67	68,5
88	Cuyama	Central Coast Valleys	5/9/2013	300 1	29	0 0	0	9.8	52.7	72	44	3.8	150	68,1
68	Cuyama	Central Coast Valleys	Constant of the	400 1		0 0	0	9.8	52.7	72	44	1.8	50	67.6
20					21					73	42.7	1.7	88	67.2
88		Central Coast Valleys	1.24 5.25 2.2	500 1	5.0	0 0	1	9.3	51.2	The second se	10 - 10 - 249 F.			
88		Central Coast Valleys	5/9/2013	600 1		0 0	58	9	48.2	78	41.8	1.8	183	66.8
88	Cuyama	Central Coast Valleys	5/9/2013	700 1	in the second	0 0	345	10.4	54.6	72	45.6	1.2	191	66.4
88	Cuyama	Central Coast Valleys	5/9/2013	800 1	29 0	.01 0	608	10.1	58.6	60	44.9	2	162	66.1
88	Cuyama	Central Coast Valleys	5/9/2013	900 1	29 0	02 0	1242	10.2	62.2	53	45	3.8	158	65.9
88	Cuyama	Central Coast Valleys	5/9/2013	1000 1	29 0	02 0	1489	10.5	65.6	49	45.7	6.6	14	66.2
68	Cuyama	Central Coast Valleys	5/9/2013	1100 1		03 0	1813	10.1	68.9	42	44.7	8.9	4	66.9
88	Cuyama		5/9/2013	1200 1	1.	02 0	1567	9.7	69.2	40	43.7	9	348	68.1
88	Cuyama	Central Coast Valleys	5/9/2013	1300 1		03 0	1945	9.4	71.7	36	43	6.7	1	69.5
- 2					1								349	70.6
88	Cuyama	Central Coast Valleys	5/9/2013	1400 1	2.4	03 0	1949	9.3	73.4	33	42.6	7,2		
88			5/9/2013	1500 1		02 0	1264	9.2	73.3	33	42.3	10.7	355	71.6
88	Cuyama	Central Coast Valleys	5/9/2013	1600 1	29 0.	02 0	939	9.1	72.2	34	42.1	10.2	352	72.7
88	Cuyama	Central Coast Valleys	5/9/2013	1700 1:	29 0.	01 0	827	9	72.6	33	41.9	9.6	354	73.6
88	Cuyama	Central Coast Valleys	5/9/2013	1800 1	29 0.	01 0	268	9.6	70.4	37	43.2	11.1	4	74.2
88	Cuyama	Central Coast Valleys	5/9/2013	1900 1	-	0 0	108	10.3	67.9	44	45.2	7.6	47	74.4
68		Central Coast Valleys	5/9/2013	2000 1	1	0 0	1	10.6	63.9	52	46.1	5.4	111	74.4
88		Central Coast Valleys	5/9/2013	2100 1		0 0	0	10.4	60.4	58	45.6	4.5	141	74.1
		1	in the second		1			and the second se				4.1	178	73.6
88	Cuyama	Central Coast Valleys	5/9/2013	2200 1		0 0	0	9.9	58	60	44.2			
88	Cuyama	Central Coast Valleys	5/9/2013	2300 1		0 0	0	9.7	57.5	60	43.8	3.3	104	73
88	Cuyama	Central Coast Valleys	5/9/2013	2400 13		0 0	0	9.8	55,2	66	44	3.2	145	72.4
88	Cuyama	Central Coast Valleys	5/10/2013	100 13	30	0 0	0	9.3	52.7	69	42.8	4.1	131	71.8
88	Cuyama	Central Coast Valleys	5/10/2013	200 13	30	0 0	o	9.3	51.5	71	42.5	2.7	137	71.1
88	Cuyama		5/10/2013	300 13		0 0	0	9.2	49.7	76	42.4	4.2	109	70.4
88	Cuyama	Central Coast Valleys	6/10/2013	400 13		0 0	0	9,2	49.8	75	42.3	5	113	69.8
88		p - com a com a com e com	5/10/2013	500 13	-	0 0	1	9.4	50	77	43	5.3	143	69.1
	Cuyama	Central Coast Valleys	States and a	1	· · · · · · · · · · · · · · · · · · ·		the second se	and the second se		in the second		3.8		68.5
88	Cuyama	Central Coast Valleys	5/10/2013	600 13	1 mar	0 0	89	9.5	50.6	75	43.1		100	
88	Cuyama	Central Coast Valleys	5/10/2013	700 13		0 0	429	10.6	55.1	72	46.2	3.9	64	67.9
	Cuyama	Central Coast Valleys	5/10/2013	800 13	30 0.	01 0	834	12.1	64	59	49.5	3	80	67.5
88		Contraction of the second	FURMORE	000 40			1000		1000 million	The state of the s				07.4
88 88	Cuyama	Central Coast Valleys	5/10/2013	900 13	50 U.	02 0	1230	12,8	68.8	53	51	3.2	139	67.4

								1001		24.0				997	co 7
	8 Cuy		Central Coast Valleys Central Coast Valleys	1	1100 1	and the second s	0	1801	12.3	74.8	42	50.1 49.3	5.4	327	68.7
-		yama	a construction of the second	5/10/2013	1300 1	24	0	1933	11.7	78.9	38	49.0	7.9	345	71.7
1	12	yama		5/10/2013	1400 1	and the second second	0	1836	11.3	80.7	31	47.7	8.1	358	73.1
	1	yama	Central Coast Valleys		1500 1		0	1609	10.9	82	29	46.7	10.7	0	74.2 Y
8	-	yama		5/10/2013	1600 1		0	1292	10.7	82.4	28	45.4	11.9	351	75.4 Y
1	1	yama	Central Coast Valleys	100 A 200	1700 1	in the second	0	895	11	81.4	30	46.9	12.6	354	76.5 Y
8	B Cuy	yama		5/10/2013	1800 1	all and the second second	0	476	11.4	79.4	33	48.1	11.7	355	77.3 Y
8	-	yama		5/10/2013	1900 1	30 0	0	105	13.1	74.9	44	51.7	7.8	62	77.6 Y
8	B Cuy	yama	Central Coast Valleys	5/10/2013	2000 1	30 D	0	1	13.5	69.8	54	52.5	6	138	77.5 Y
8	B Cuy	yama	Central Coast Valleys	5/10/2013	2100 1	30 0	0	0	12.8	66.7	58	51.2	5	170	77.2 Y
8	B Cuy	yama	Central Coast Valleys	5/10/2013	2200 1	30 0	0	0	12.3	64.1	60	50.1	3.6	133	76.8 Y
8	B Cuy	yama	Central Coast Valleys	5/10/2013	2300 1	30 0	0	0	12.3	61.7	66	50	3.4	109	76.2
8	B Cuy	yama	Central Coast Valleys	5/10/2013	2400 1	80 0	0	0	11.8	60.6	66	49	5.2	143	75.6
8	B Cuy	yama	Central Coast Valleys	5/11/2013	100 1	31 0	0	0	11.5	58,1	70	48.3	4.3	123	74.9
8	8 Cuy	yama		5/11/2013	200 1	31 0	0	0	11.5	56.3	74	48.2	3.7	104	74.2
8		yama	Central Coast Valleys		300 1		0	0	11.3	54.9	77	47.7	5.7	102	73.5
1	-	yama	Central Coast Valleys		400 1		0	0	10.7	54.1	75	46.4	5,9	106	72.9
-	-	yama	Central Coast Valleys		500 1		0	1	10.6	63.3	77	46.1	5,4	112	72.2
	-	yama		5/11/2013	600 1		0	98	10.6	53.7	75	46	5.4	100	71.5
1	1.	yama	Central Coast Valleys	F.C	700 1		0	447	11.3	59.6	65	47.8	7.1	85	70.9
8		yama	Central Coast Valleys		800 1		0	851	12.2	68.3	52	49.9	6.7		
8	1	yama		5/11/2013 5/11/2013	900 1:		0	1247	13.3	74.8	45	62.2	4.6	67	70.2
		yama		5/11/2013	1000 1		0	1588	11.7	83.4	33	48.6	4.2	144	70.8
-	1000	yama		5/11/2013	1200 1		0	1960	11.9	87.6	26	48.5	3.8	16	72.8 Y
	-	yama		5/11/2013	1200 1		0	1951	9.5	90.9	19	43.3	6.3	343	74.5 Y
8		yama		5/11/2013	1400 1		0	1851	7.4	91.8	14	36.6	7.6	347	75.9 Y
8		yama		5/11/2013	1500 13		0	1642	7.3	92.3	14	36.4	8.7	343	77.1 Y
B	9	ama		5/11/2013	1600 13		0	1154	8	91.3	16	38.7	8.1	337	78.5 Y
1. 1.	1	yama		5/11/2013	1700 1:		0	377	10.2	88.9	22	45	6.7	312	79.8 Y
8	-	/ama	Central Coast Valleys	5/11/2013	1800 1	and the second second	0	392	10.6	87.7 Y	24 Y	46.2 Y	5.5	333	80.6 Y
B	1	/ama		5/11/2013	1900 1:	11 0.01 Y	0	108	10.5	84.5 Y	26 Y	45.9 Y	5.5	288	81 Y
8	a Cuy	ama	Central Coast Valleys	5/11/2013	2000 1:	11 O Y	0	0	11	78.7 Y	33 Y	47 Y	7.3	263	81 Y
8	8 Cuy	ama	Central Coast Valleys	5/11/2013	2100 13	11 O Y	0	0	11.3	74.8 Y	38 Y	47.3 Y	5	277	80.7 Y
8	8 Cuy	ama .	Central Coast Valleys	5/11/2013	2200 13	11 O Y	0	0	11	71.1 Y	42 Y	47 Y	2.9	249	80.3 Y
8	8 Cuy	ama	Central Coast Valleys	5/11/2013	2300 13	11 D Y	0	0	11.6	66.1 Y	53 Y	48.5 Y	4.5	127	79.7 Y
8	8 Cuy	ama	Central Coast Valleys	5/11/2013	2400 13	1 0 Y	0	0	11.5	65.6 Y	53 Y	48.2 Y	5	145	79 Y
8	8 Cuy	ama	Central Coast Valleys	5/12/2013	100 13	2 D Y	0	0	11.1	62.9 Y	57 Y	47.3 Y	4	89	78.3 Y
8	1		a second second second second second	5/12/2013	200 13		0	0	11.4	60.4	63	47.9	4.1	116	77.6 Y
8	-		Contraction of the second	5/12/2013	300 13	1	0	0	11.6	59.1	68	48.4	3.5	93	76.9 Y
8				5/12/2013	400 13		0	0	11.9	58.3	72	49.2	4.2	89	76.2 Y
B			Central Coast Valleys		500 13	2	0	1	11.4	57.4	71	47.9	5.8	100	75.5 Y
B			Central Coast Valleys		600 13	Street States	0	111	11.5	58.1	70	48.3	5.2	102	74.8 Y
8				5/12/2013	700 13		0	464	12	64.7 72.9	58	49.4	5.8	90	73.6 Y
8		100 million - 100	and a state of the state of the	5/12/2013 5/12/2013	900 13	and the second sec	0	1253	13.4	80.2	40	53.3	4.1	107	73.5 Y
8	1		Central Coast Valleys		1000 13	6.20	0	1586	13.1	83.7	33	51.7	4	147	73.8 Y
B				5/12/2013	1100 13		0	1825	12.1	86.4	28	49.7	4.7	153	74.7 Y
BI			Concerns to Tanana and the second second	5/12/2013	1200 13		0	1937	11.2	89.2	24	47.5	6.1	11	76 Y
8	1		Central Coast Valleys	5/12/2013	1300 13		0	1943	9.4	91,1	19	42.9	7.8	344	77.6 Y
B	BCuy	ama	Central Coast Valleys	5/12/2013	1400 13	2 0.03	0	1846	9	92.1	17	41.7	9.8	344	78.9 Y
84	B Cuya	ama	Central Coast Valleys	5/12/2013	1500 13	2 0.03	0	1640	7.8	92.7	15	38.1	11.1	353	80.1 Y
84	B Cuyz	ama	Central Coast Valleys	5/12/2013	1600 13	2 0.03	0	1293	8.1	92.2	16	39	9.6	1	81.5 Y
66	B Cuya	ama	Central Coast Valleys	5/12/2013	1700 13	2 0.01	0	506	8	90.1	17	38.8	9.8	351	82.7 Y
88	B Cuya	ama	Central Coast Valleys	5/12/2013	1800 13	2 0.01 Y	0	408	8.2	88.7 Y	18 Y	39.5 Y	7.4	348	83.4 Y
BR	B Cuya	ama	Central Coast Valleys	5/12/2013	1900 13	2 0.01 Y	0	113	10.6	85.7 Y	25 Y	46.1 Y	5.4	302	83.7 Y
88			Central Coast Valleys	2.2.5.20	2000 13		0	1	9.6	81.1 Y	27 Y	43.5 Y	6.1	265	83.6 Y
88			Central Coast Valleys	Contraction of the	2100 13		0	0	8.5	76.6 Y	27 Y	40.4 Y	5,4	245	83.2 Y
88	-		Central Coast Valleys		2200 13		0	0	8.3	74 Y	29 Y	39.7 Y	3.4	248	82.7 Y
BE	1.1		Central Coast Valleys		2300 13	1	0	0	10.2	67.3 Y	45 Y	45 Y	3.7	149	82.1 Y
	Cuya	100 0 0 1	Central Coast Valleys		2400 13		0	0	10	64.3 Y	49 Y	44.5 Y	4	141	81.4 Y
88	-		Central Coast Valleys		100 13		0	0	10.5	61.6	56	45.9	4.5	102	80.6 Y 79.8 Y
BE	-		Central Coast Valleys	3	200 13		0	0	9.5	60.9 58.7	56	44.9	4.6	104	79.8 Y
80	1.1		Central Coast Valleys Central Coast Valleys		400 13		0	0	9.5	56.7	64	43.2	3.8	82	78.2 Y
88	1.1		Central Coast Valleys	and the second second	400 13		0	1	10	56.6	65	44.8	5.4	103	77.5 Y
88	1		Central Coast Valleys		600 13		0	108	9.8	57.2	61	44	5.3	102	76.7 Y
88	1.1.1.		Total Contract of Contract of Contract	5/13/2013	700 13	2 - 2.0	0	463	10.5	63.4	52	45.8	7.2	91	76 Y
BE		-		5/13/2013	800 13		0	868	11.2	72	42	47.4	6.3	91	75.4 Y
88	1.5.5.6			5/13/2013	900 13		0	1265	10.9	80	31	46.9	5.1	84	75.1 Y
88		- A		5/13/2013	1000 13	· · · · · · · · · · · · · · · · · · ·	0	1602	10	85 Y	24 Y	44.7 Y	3.7	90	75.4 Y
88	Cuya	ama I	Central Coast Valleys	5/13/2013	1100 13		0	1836	9.4	88.2 Y	21 Y	43 Y	6	6	76.2 Y
88	Cuya	ama I	Central Coast Valleys	5/13/2013	1200 13	3 0.04	0	1951	8,3	89.7	17	39.7	9.8	350	77.6 Y
88	Cuya	ama I	Central Coast Valleys	5/13/2013	1300 13	3 0.03	0	1960	8.2	90.9	17	39.5	7.8	349	79.2 Y
88	Cuya	ama I	Central Coast Valleys	5/13/2013	1400 13	3 0.03	0	1867	8.1	91.8	16	39)	7.7	344	80.5 Y
88	Cuya	ama (Central Coast Valleys	5/13/2013	1500 13	3 0.03	0	1638	8.1	92.4	16	39	8	349	81.7 Y
88	Cuya		Central Coast Valleys		1600 13	3 0.02	0	1167	8.1	92,4	16	39.1	8	356	83 Y
88	-		Central Coast Valleys		1700 13		0	830	8	91.6 Y	16 Y	38.9 Y	5.7	354	84.1 Y
88	1.1	-	Central Coast Valleys		1800 13		0	513	6.3	89.6 Y	13 Y	32.8 Y	7.1	289	84.9 Y
88	1000	ama (Central Coast Valleys	5/13/2013	1900 13		0	140	6.3	84.8 Y	15 Y	32.6 Y	7.4	281	85.2 Y
88			and the second se	5/13/2013	2000 13		0	1	6.3	78.7 Y	19 Y	32.6 Y	5.4	264	85.1 Y
88	1		Central Coast Valleys		2100 13	and the second s	0	0	6.3	74.2 Y	22 Y	32.6 Y	4.7	255	84.6 Y
88	Cuya	ama (Central Coast Valleys	5/13/2013	2200 13		0	Ō	6.1	70 Y	24 Y	32 Y	4.1	269	84 Y
-	Cuya		Central Coast Valleys		2300 13	3 0	0	0	7.6	64.9	36	37.4	3	253	83.2

88 0	Cuyama	Central Coast Valleys	5/13/2013	2400 1	33 0	0	0	8.6	59.5	49	40.5	3.2	176	82.4 Y
	Cuyama	Central Coast Valleys	The second se	100 1		0	0	7.8	55.5	52	38.2	3.3	188	81.5 Y
	Cuyama	Central Coast Valleys	and the second se	200 1		0	0	6.6	53.9	46	33.7	2.6	176	80.5 Y
	Cuyama	Central Coast Valleys	5/14/2013	300 1		0	0	6.9	52.3	52	35	4.2	162	79.6 Y
20	Cuyama	Central Coast Valleys	5/14/2013	400 1	S	0	0	6.1	51.3	47	32	3.3	77	78.6 Y
-	Cuyama	Central Coast Valleys		500 1		0	2	6.5	49.8	53	33.7	4.7	129	77.7 Y
1	Cuyama	Central Coast Valleys	n Contonal.	600 1	- N	0	90	6.4	50	52	33	4.5	153	76.8 Y
	Cuyama	Central Coast Valleys		700 1		0	500	6	59.1	35	31.6	4.3	117	75.9 Y
	Cuyama	Central Coast Valleys	Constant .	800 1		0	907	6.1	63	31	31.8	6.8	281	75.1 Y
	Cuyama	Central Coast Valleys		900 1		0	1309	7.5	71.6	28	37.1	7.1	273	74.8 Y
-1	Cuyama	Central Coast Valleys		1000 1		0	1652	7	76.6	22	35.2	7.3	287	75 Y
1	Cuyama	Central Coast Valleys		1100 1	-	0	1875	7.9	78.4	24	38.5	9.6	291	75.8 Y
		Central Coast Valleys		1200 1		0	2005	8.6	80.5	19	34	9.9	301	77.1 Y
	Cuyama	Central Coast Valleys	Contraction of the second s	1300 13		0	2003	6	81.7	16	31.4	10.1	303	78.6 Y
154.0	Cuyama	Central Coast Valleys	5/14/2013	1400 1		0	1904	5.7	82.3	15	30.3	9.8	299	79.7 Y
		Central Coast Valleys		1500 13		0	1675	5.3	82.1	14	28.7	9.2	294	80.7 Y
10	Cuyama	Central Coast Valleys	5/14/2013	1600 13		0	1349	5.7	81.2	16	30.3	9,9	293	81.8 Y
			5/14/2013	1700 13	_	0	968	5.9	79.2	17	31.1	9.8	288	82.8 Y
	Cuyama Cuyama		5/14/2013	1800 13		0	539	8.5	74.4	29	40.2	9.6	276	83.5 Y
	Cuyama	Central Coast Valleys	5/14/2013	1900 13		0	133	9.5	68.3	40	43.1	8.6	279	83.8 Y
	Suyama	Central Coast Valleys		2000 13	-	0	1	10.4	62.5	54	45.6	7.2	278	83.6 Y
	Cuyama	Central Coast Valleys	5/14/2013	2100 13		0	0	10.5	59.3	61	45.9	7.2	264	83.1 Y
-				2200 1		0	0	10.3	57.2	65	45.4	2.4	238	82.4 Y
	Cuyama	Central Coast Valleys Central Coast Valleys	5/14/2013	2200 1	- Th	0	0	10.3	54.8	69	44.9	2.4	134	81.5 Y
						0		10.1	53.5	72	44.6	2.9	144	80.6 Y
	Cuyama	Central Coast Valleys Central Coast Valleys	5/14/2013	2400 13		0	0	8.8	51.5	68	44.6	1.4	212	79.6 Y
	Cuyama			200 13		0	0	8.8	51.5	68	41.3	2.4	128	78.7 Y
	Cuyama		5/15/2013	200 1:		0	0	8.6	49.9	70	41.2	1.8	120	77.8 Y
	Cuyama	Central Coast Valleys Central Coast Valleys	Contraction of the second				0	8.5	49.9	70	40.9	3.2	139	76.9 Y
				400 10		0	1	8.7	49.4	73	40.9	4.6	139	76.9 T
- 10	Cuyama		5/15/2013 5/15/2013	600 13		0	112	8.4	49.4 50.3	68	40.2	5.4	120	75.2 Y
1									2 (12)	and the second se	40.2	5.6	95	75.2 T 74.4 Y
	Cuyama	Central Coast Valleys Central Coast Valleys	5/15/2013	700 13		0	474 886	8.9	65.2	57	41.5	2.8	90	74.4 Y 73.7 Y
	Cuyama	Central Coast Valleys								25	33.4	3	292	73.4 Y
	Cuyama			900 13		0	1285	6.5	71.2	25	37.7	3.9	304	73.7 Y
	Cuyama	Central Coast Valleys		1000 13	and the second	0	1.44.0		75.3				252	74.5 Y
-	Cuyama	Central Coast Valleys		1100 13	_	0	1794	8.6	79.4	25	40.7	3.8	282	75.8 Y
_	Cuyama		5/15/2013	1200 13	and the second se	0	1984	8.2	82.5	22	39.5	4,3	314	77.4 Y
	Cuyama	and the second s	5/15/2013	1300 13		0	1978	8	85	19	38.7	5.4	289	78.7 Y
	Cuyama	Contraction of the Contraction	5/15/2013	1400 13		0	1883	7.2	86.3	17	36.2	8.9	284	79.8 Y
	Cuyama		5/15/2013	1500 13		0	1656	6,9	85.7	16	34.9	9.9		81.1 Y
	Cuyama		5/15/2013	1600 13		0	1330	6.6	85	16	34	9.7	283	82.2 Y
- an	Cuyama		5/15/2013	1700 13	A started	0	941	6.6	82.3	17	33.8	10.4		
-	Cuyama	Central Coast Valleys	5/15/2013	1800 13		0	516	7.5	78.6	23	37.2	9,5	282	83 Y
	Suyama	and the second sec	5/15/2013	1900 13		0	127	8.9	72.7	32	41.4	8.7	278	83.4 Y
	Suyama		5/15/2013	2000 13		0	1	9.5	66.8	42	43.2	7.3	281	83.3 Y
	Cuyama		5/15/2013	2100 13	1 I I I I I I I I I I I I I I I I I I I	0	0	10	62.7	51	44.6	4.2	282	82.9 Y 82.2 Y
	Suyama		5/15/2013	2200 13		0	0	9.6	59.3	58				
5.25	Suyama		5/15/2013	2300 13	2 · · · · · ·	0	0	9.3	58	61	42.7	2.2	159	81.4 Y 80.5 Y
-	Cuyama	and the second part of the	5/15/2013	2400 13	a second second	0	0	9.3	53.7	66	42.7	2.9	151	79.6 Y
	Juyama		5/16/2013	100 13	-	0	0	8.2	50.7	65	39.4	2.6	145	78.7 Y
213	Cuyama	1. CON 1. MARCH 1. CON	5/16/2013	200 13		0	0	7.5	50 48.5	61	37	4.2	185	77.7 Y
	Cuyama	and the second sec	5/16/2013	300 13		0	0	7.9					119	76.8 Y
	Cuyama	Central Coast Valleys		400 13		0	0	7.5	48.5	65	37.2	2.9	100	75.9 Y
	Cuyama	Central Coast Valleys		500 13		0	1	7.8	47	72	38.3	3.9		2010 CO. 10
	uyama	Central Coast Valleys		600 13		0	131	8.2	48.7	70	39.4	2.7	89	75 Y
	Juyama		5/16/2013	700 13		0	278	8.6	52.4	64	40.6	4.4	58	74.2 Y 73.5 Y
	luyama	Central Coast Valleys	where we want the	800 13		0	872	9.1	60.9	50	42	4,3		
-	uyama	and the second s	5/16/2013	900 13	3	0	1274	8.4	67,7	36	39.9	4.2	103	73.1 Y
- 43	uyama	Part of the second of the second s	5/16/2013	1000 13		0	1532	8.6	70.5	34	40.6	5.4	71	73.3 Y
100	uyama	Central Coast Valleys	the second se	1100 13	All and a second se	0	1474	8.8	70.6	35	41.3	7.8	349	73.9 Y
6 Ge 1	luyama	No.	5/16/2013	1200 13		0	1410	8.8	71.5	33	41.1	9.7	359	74.9 Y 76.1 Y
-	luyama	Central Coast Valleys		1300 13	and the second	0	861	8.7	70.5	34	41	9.4	1	76.1 Y
- in a	luyama	Central Coast Valleys	C	1400 13		0	1148	9,1	70.4	36		the second se		
0.55	luyama	Central Coast Valleys	100000	1500 13		0	932	9.2	70.2	37	42.3	6.3	358	77.6 Y 78.1 Y
	luyama	Central Coast Valleys	10 10 10 10 10 10 10 10 10 10 10 10 10 1	1600 13		0	565	9.1	68.8	38	42	10.2	4	
- dates	luyama	Central Coast Valleys		1700 13		0	495	9	66.9	40	41.9	10.3	360	78.5 Y
	uyama	Central Coast Valleys		1800 13		0	574	9.1	67.1	40	42.2	7	351	78.6 Y
1.2	uyama	Central Coast Valleys		1900 13		0	134	9	85	43	41.8	4.9	63	78.6 Y 78.4 Y
and in the second	uyama	Central Coast Valleys		2000 13		0	1	9.4	60.5 58.8	52	42.9	2.9	149	78.4 Y
	uyama		5/16/2013	2100 13		0	0	9.4	00101	56	43	4.8	163	77.5 Y
	uyama		5/16/2013	2200 13		0	0	9.4	58.6				163	76.8 Y
100	uyama	and the second second second	5/16/2013	2300 13		0	0	9.4	57.9	57	42.9	1.9	208	76.8 T
	uyama	Central Coast Valleys		2400 13		0	0		58.3	55		2.8	180	75.6 Y
1	uyama	Central Coast Valleys		100 13	· · · · · · · · · · · · · · · · · · ·	0	0	8,6	55.1	58	40.7	2.8	180	75.0 T 74.9 Y
	uyama	Central Coast Valleys		200 13	and the second s	0	0	8.6	53.5		and the second s	2.1	112	74.9 Y
	uyama	Central Coast Valleys	2.01.0	300 13		0	0	8.7	52.6	64	40.8	1.9	139	74.3 T 73.7 Y
1.12	uyama	Central Coast Valleys	00.000	400 13		0	0	8.6	50.3	69		2.8		73.7 Y
	uyama	Central Coast Valleys		500 13		0	1	8.9	49.8	73	41.5	4.1	151	73
And in	uyama	Central Coast Valleys		600 13		0	41	10.1	52.9	74	44.7	2.2	339	72.4
- 25-1	uyama	Central Coast Valleys	C. I. Z. Start Communication	700 13		0	275			71				71.8
3.4	uyama	Central Coast Valleys		800 13		0	879	10.8	59.8 69.1	62	46.5	2.3	354	71.3
300	uyama	Central Coast Valleys	in the second se	900 13		0	1258	10.9	62,1	57	46.7			
	uyama	Central Coast Valleys		1000 13		0	1518	10.7	65	51	48.3	3.6	88	71.4 72.2 Y
	uyama	Central Coast Valleys	5/17/2013	1100 13	0.02	0	1323	11	65.4	51	47	4.8	56	12.2 4
	uyama	Central Coast Valleys		1200 13	7 0.03	0	1883	10.4	68.3	44	45.6	4.7	44	73.2

8	B Cuyama	Central Coast Valleys	5/17/2013	1300 13	7 0.03	0	1840	10.8	70.2	43	48.5	6.4	343	74,4 Y
8	8 Cuyama	Central Coast Valleys	5/17/2013	1400 13	7 0.02	0	1336	9.4	72	35	42.9	7.8	343	75.5 Y
8	B Cuyama	Central Coast Valleys	5/17/2013	1500 13	7 0.02	0	818	8.2	72.2	31	39.5	11.1	332	78.4 Y
8	B Cuyama	Central Coast Valleys	5/17/2013	1600 13	7 0.01	0	588	8,3	71,9	31	39.6	9.1	334	77.3 Y
8	B Cuyama	Central Coast Valleys	5/17/2013	1700 13	7 0.01	0	973	8.8	72.6	32	41.2	8.6	336	77.8 Y
8		Central Coast Valleys		1800 13		0	588	9.3	71.1	36	42.5	8.6	303	78.2 Y
8		Central Coast Valleys		1900 13		0	143	9,1	66,4	41	42.1	9.4	283	78.4 Y
8	ouyana	Central Coast Valleys	and the second sec	2000 13	1	0	1	8	63	40	38.6	7.5	279	78.4 Y
B		Central Coast Valleys	1	2100 13		0	0	8,1	61	44	39,2	6.1	271 278	78.2 Y
8		Central Coast Valleys	1	2200 13		0	0	8.5	58	52	40.3	3.5	278	77.1 Y
B		Central Coast Valleys Central Coast Valleys	1.	2300 13		0	0	8.6	55.7 53.5	61	40.3	3.6	258	76.4 Y
8		Central Coast Valleys		100 13		0	0	8	61	63	38.9	2.2	239	75.7 Y
8		Central Coast Valleys		200 13		0	0	1.7	48.5	66	37.7	3.5	161	74.9 Y
8	-	Central Coast Valleys	and the second sec	300 13		0	0	7.6	47.6	68	37.5	2.7	170	74.2 Y
в	Cuyama	Central Coast Valleys	5/18/2013	400 13	8 0	0	0	7.3	46.1	68	36.3	1.7	122	73.4
8	B Cuyama	Central Coast Valleys	5/18/2013	500 13	9 0	0	2	7.1	44.2	72	35.7	3.4	161	72.6
8	Cuyama	Central Coast Valleys	5/18/2013	600 13	8 0	0	121	7.2	45.9	69	36.2	3.3	139	71.9
8	B Cuyama	Central Coast Valleys	5/18/2013	700 13	8 0.01	0	483	8.6	51.9	65	40.5	3.5	51	71.2
8	Cuyama	Central Coast Valleys	5/18/2013	800 13	8 0.01	0	889	8.3	58.4	50	39.7	3.3	40	70.6
B	Cuyama	Central Coast Valleys	5/18/2013	900 13	8 0.02	0	1286	7.7	63,4	39	37.7	3.9	85	70.2
8	Cuyama	Central Coast Valleys	5/18/2013	1000 13	8 0.02	0	1627	6.7	68.6	30	34.3	6.5	92	70.1
8	B Cuyama	Central Coast Valleys	the second se	1100 13	8 0.03	0	1863	6.5	68,3	27	33,4	7.8	104	70.6
8		Central Coast Valleys		1200 13	1-1-1-1	0	1980	7	70.8	27	35.2	6.7	350	71.5
8	o a juina	Central Coast Valleys	5/18/2013	1300 13	1	0	1989	7	72.2	26	35.3	7.9	356	72.8 Y
8		Central Coast Valleys	5/18/2013	1400 13		0	1887	6	73.7	21	31.4	8	360	73.9 Y 75 Y
8		Central Coast Valleys Central Coast Valleys	5/18/2013	1600 13		0	1664	5.5	74.9	19	29.6	8.4	353	76.3 Y
8		Central Coast Valleys Central Coast Valleys	A Contract of the	1600 13	the second s	0	954	4.6	75.5	15	25.3	9.5	343	77.5 Y
8		Central Coast Valleys		1800 13	and the second sec	0	541	4.2	73.5	14	22.0	10.3	340	78.5 Y
8		Central Coast Valleys		1900 13		0	158	4.3	71.1	17	23.7	7.2	336	79 Y
8		Central Coast Valleys		2000 13		0	2	4.4	67.2	19	23.8	4	342	79.2 Y
8		Central Coast Valleys		2100 13	and the second second	0	0	5.3	63.8	26	28.3	3.3	27	78.9 Y
BI	Cuyama	Central Coast Valleys	5/18/2013	2200 13	8 0	0	0	5.B	59.6	33	30.6	2.3	101	78.5 Y
8	Cuyama	Central Coast Valleys	5/18/2013	2300 13	8 0	0	0	5.5	57.1	35	29.4	2.9	183	77.8 Y
8	Cuyama	Central Coast Valleys	5/18/2013	2400 13	8 0	0	0	4.8	54.5	33	26	5,4	194	77.1 Y
8	Cuyama	Central Coast Valleys	5/19/2013	100 139	0 0	0	0	5.6	53.5	40	30	4.3	158	76.3 Y
8	Cuyama	Central Coast Valleys	5/19/2013	200 139	0	0	0	6.1	50.3	49	31.8	3.9	187	75.5 Y
Bi	Cuyama	Central Coast Valleys	5/19/2013	300 139	0 0	0	0	6.2	47.8	54	32.2	3,3	40	74.7 Y
8	Cuyama	Central Coast Valleys		400 139	0 0	D	0	6.4	48.1	60	33.1	2.4	33	73.9 Y
Bi	Cuyama	Central Coast Valleys		500 139	1	D	2	6.7	46.4	62	34.2	2.7	89	73.2
8		Central Coast Valleys	the second se	600 139		0	131	7.2	47.9	63	36	2.6	42	72.4
88	Cuyama	Central Coast Valleys		700 139		0	506	8.3	57	52	39.7	3.1	19 87	71.7
88		Central Coast Valleys	5/19/2013	800 139	and the second second	0	913	9.1	64.4	44	42	7.8	354	71.2
88		Central Coast Valleys	5/19/2013 5/19/2013	900 139	the second se	0	1303	9.1	66.4 68.5	41	42.2	8.5	356	70.8
BL	Contraction in a	Central Coast Valleys Central Coast Valleys	and the second second	1100 135		0	1869	8.6	70.5	34	40.6	10.1	351	71.3
BE	Cuyama	Central Coast Valleys	16.000	1200 139		0	1989	8.4	72.1	31	40	9.7	348	72.4 Y
BE	S	Central Coast Valleys		1300 139		0	1999	6.1	74.2	28	39.1	8.9	353	73.9 Y
88		Central Coast Valleys	1 million and the	1400 139		0	1892	7.7	75.6	25	37.7	9.3	351	75 Y
88	Cuyama	Central Coast Valleys	5/19/2013	1500 139	0.03	0	1666	7.7	n	24	37.8	9.7	345	76.1 Y
88	Cuyama	Central Coast Valleys	5/19/2013	1600 139	0.02	0	1349	7.1	77.6	22	35.8	10	332	77.4 Y
88	Cuyama	Central Coast Valleys	5/19/2013	1700 139	0.02	0	958	6.6	77,5	20	33.8	10.6	340	78.6 Y
88	Cuyama	Central Coast Valleys	5/19/2013	1800 139	0.01	0	536	6.6	76.3	21	33.8	10.1	352	79.5 Y
88	Cuyama	Central Coast Valleys	5/19/2013	1900 139	0.01	0	150	6.6	73.6	24	34.6	8.7	344	80.1 Y
88	Carl Browners	Central Coast Valleys		2000 139	0	0	2	7	70	28	35.5	5.8	1	80.2 Y
88		Central Coast Valleys		2100 139		0	0	7.4	64.6	35	36.7	4.8	120	80 Y
88				2200 139		0	0	7.5	59.5	43	37	4.4	165	79.5 Y
88	and the second	Central Coast Valleys	Same States	2300 139		0	0	6.9	57.7	43	35.1	4.7	162	78,9 Y
88		Central Coast Valleys		2400 139	1	0	0	7.6	54.2	53	37.3	3.7	108	78.2 Y
88	Cuyama	Central Coast Valleys Central Coast Valleys	5/20/2013	100 140		0	0	7.8	52.3 50.5	58	38.1	3.8	109	77.4 Y 76.6 Y
88		Central Coast Valleys	1	200 140		0	0	7.8	49.9	62	38	5.4	98	76.6 T
88	Cuyama	Central Coast Valleys	5/20/2013	400 140		0	0	7.6	48.2	64	36.7	4.6	112	74.9 Y
88	Cuyama		5/20/2013	500 140		0	2	7.2	47.9	63	35.9	4.5	113	74.2 Y
88	Cuyama	A share of the second second second	5/20/2013	600 140		0	133	7.5	48.5	64	37	5.6	99	73.4 Y
88	in the second second	Central Coast Valleys	5/20/2013	700 140		0	508	8.2	56	54	39.4	6.2	89	72.7 Y
88			5/20/2013	800 140	1.	0	910	8	65.2	38	38.7	5.6	87	72.1
88	Cuyama	Central Coast Valleys	5/20/2013	900 140	1	0	1311	7	72,1	26	35.3	3.4	136	71.7
88	Cuyama	Central Coast Valleys	5/20/2013	1000 140		0	1646	7.2	75.8	23	36	3.6	117	71.6
88	Cuyama	Central Coast Valleys	5/20/2013	1100 140	0.03	0	1879	7.2	79.2	21	36.1	5.4	67	72 Y
68	Cuyama	Central Coast Valleys	5/20/2013	1200 140		0	2001	7.2	60.7	20	36	6.1	342	73.1 Y
88	Cuyama	Central Coast Valleys	5/20/2013	1300 140	0.03	0	2018	6.7	83.3	17	34.3	5.5	339	74.6 Y
68	Cuyama	Central Coast Valleys	5/20/2013	1400 140		0	1906	6	84.8	15	31.7	6.8	4	76 Y
68	Cuyama	1	5/20/2013	1500 140		0	1677	5.8	86	14	30.9	6.4	13	77.2 Y
88	Cuyama	Central Coast Valleys	5/20/2013	1600 140		0	1347	5.4	86,3	13	29.1	8.1	352	78.5 Y
88		Central Coast Valleys	5/20/2013	1700 140		0	952	5.3	86.1	12	28.5	8.3	349	79.9 Y
88		Central Coast Valleys	5/20/2013	1800 140		0	526	5.3	84.5	13	28.7	9.7	347	80.9 Y 81.6 Y
88	Cuyama	Central Coast Valleys	5/20/2013	1900 140		0	154	5.6	60.9 75.9 Y	15 22 Y	29.7 34 Y	7.7	343	81.6 Y
88		Central Coast Valleys Central Coast Valleys	5/20/2013 5/20/2013	2000 140	0 Y	0	2	7	67.8	30	34 T 35.4	3.2	205	81.7 Y
	Cuyama		5/20/2013	2100 140		0	0	6.3	63.9	30	32.8	4.4	203	81.2 Y
0.5	ouyama		5/20/2013	2200 140		0	0	6.3	62.2	33	32.8	4.5	158	80.6 Y
68	1	Central Coast Valleye												
1.01	Cuyama Cuyama	Central Coast Valleys Central Coast Valleys	5/20/2013	2400 140		0	0	7.1	57.2	45	35.9	3.6	137	79.9 Y

ma ma ma	Central Coast Valleys Central Coast Valleys		300 14		0	0	7.5	53.3	54	37.2	5.4	106	n.
	Central Coast Valleys	5/21/2013	400 14		0			and the second s	and the second s			inel I	
ma		1 - 2, 9	100 14	1 0		0	7.1	52.9	52	35.8	6.5	103	76,
	Central Coast Valleys	5/21/2013	500 14	1 0	0	2	7.2	52.4	54	38.2	5.6	113	75.
ma	Central Coast Valleys	5/21/2013	600 14	1 0	0	114	7	54	49	35.3	6.7	103	75.
ma	Central Coast Valleys	5/21/2013	700 14	1 0.01	0	475	7,4	60.4	41	36.9	7.4	90	74.
ma	Central Coast Valleya	5/21/2013	800 14		0	912	7.6	69.3	31	37.5	7.1	98	73.
ma	Central Coast Valleys	5/21/2013	900 14	and the second second	D	1147	7.2	77.1	23	36.1	3.5	86	73
ma	Central Coast Valleys	5/21/2013	1000 14	21 C C C C C C C C C C C C C C C C C C C	0	1422	6.6	82.2	18	34	3	37	73
ma	Central Coast Valleys	5/21/2013	1100 14			1778	6.4	84.3	16	33	4.7	298	73
			2		0			2013	and the second se		5.6	315	74
ma	Central Coast Valleya	5/21/2013	1200 14		0	1987	6.1	86	14	32.1			
ma	Central Coast Valleys	6/21/2013	1300 14		0	2009	7	86.1	16	35.4	8.2	48	76
ma	Central Coast Valleys	5/21/2013	1400 14	1 0.03	0	1755	6.8	86.7	16	34,5	8.9	7	n
ma	Central Coast Valleys	5/21/2013	1500 14	1 0.03	0	1635	6.3	87.6	14	32.6	9	344	78
ma	Central Coast Valleys	5/21/2013	1600 14	1 0.02	0	1333	6.6	86.1	15	33.7	9.5	290	75
ma	Central Coast Valleys	5/21/2013	1700 14	1 0.02	0	936	6.9	82.7	18	34.9	10.1	288	81
ma	Central Coast Valleys	5/21/2013	1800 14	1 0.01	0	522	8.2	78.8	24	39.4	10.8	288	83
ma	Central Coast Valleys	5/21/2013	1900 14	1 0.01	0	158	8.6	73.7	30	40.6	9.1	281	83
ma	Central Coast Valleys	5/21/2013	2000 14	1 0	0	2	7.9	68.3	33	38.5	8.1	273	84
ma	Central Coast Valleys	and the second second	2100 14		0	0	7.5	65,2	36	37.3	6.2	271	82
ma	Central Coast Valleys		2200 14	-	0	0	7.7	60.2	43	37.9	5.1	274	81
						and the second s		1993				and the second s	81
ma	Central Coast Valleys	5/21/2013	2300 14		0	0	7.3	66.5	47	36.6	3.3	255	
ma	Central Coast Valleys	5/21/2013	2400 14		0	0	7.2	52.9	53	36.2	2	145	80
ma	Central Coast Valleys	5/22/2013	100 14	2 0	0	0	7.7	51	60	37.8	2,9	180	79
ma	Central Coast Valleys	5/22/2013	200 14	2 0	0	0	7	49.2	58	35.3	2.9	187	78
ma	Central Coast Valleys	5/22/2013	300 14	2 0	0	0	6.7	49	57	34.4	3.6	159	77
ma	Central Coast Valleys	5/22/2013	400 14	2 0	0	0	5.7	49.1	48	30.2	2	42	76
ma	Central Coast Valleys	5/22/2013	500 14	2 0	0	2	5.7	47.3	52	30.4	3.1	138	78
ma	Central Coast Valleys	5/22/2013	600 14		0	136	6.3	49,1	53	32.7	7.9	132	74
ma	Central Coast Valleys	5/22/2013	700 14		0	510	6.6	53.5	47	33.8	9.8	89	
ma	Central Coast Valleys	5/22/2013	800 14	the second se	0	913	6.7	55.4	45	34.4	8.7	42	73
							and the second s		and the second s	and the second second		352	75
ma	Central Coast Valleys	5/22/2013	900 14		0	1304	6.2	56.8	39	32.4	10.4		
ma	Central Coast Valleys	5/22/2013	1000 14		0	1642	5.7	58.6	34	30.1	7,3	346	73
ma	Central Coast Valleys	5/22/2013	1100 14	2 0.02	0	1875	5.6	61	31	30	6.7	351	71
ma	Central Coast Valleys	5/22/2013	1200 14	2 0.03	0	1993	5.5	63.9	27	29.5	8	350	73
ma	Central Coast Valleys	5/22/2013	1300 14	2 0.03	0	1995	5.3	65.2	25	28.3	8.8	351	74
ma	Central Coast Valleys	5/22/2013	1400 14	2 0.03	0	1892	5	68.5	23	27.3	6.7	6	75
ma	Central Coast Valleys	5/22/2013	1500 14	2 0.02	0	1664	5	67.9	22	27.2	7.4	4	76
ma	Central Coast Valleys	5/22/2013	1600 14		0	1339	4.7	68.6	20	25.8	8.2	348	77
ma	Central Coast Valleys	5/22/2013	1700 14		0	948	4,5	67.8	20	24.8	10.5	343	78
ma	Central Coast Valleys	5/22/2013	1800 14		0	528	4.3	85.8	20	23.5	11.5	348	79
-				1	A second se			and the second sec		22.4	9.7	347	75
ma	Central Coast Valleys	5/22/2013	1900 14	a second second second	0	148	4.1	63.1	21				
ma	Central Coast Valleys	5/22/2013	2000 14		0	2	4.1	59.5	24	22.5	5.3	21	79
ma	Central Coast Valleys	5/22/2013	2100 14	2 0	0	0	4.3	57.1	27	23.5	3.4	49	79
ma	Central Coast Valleys	5/22/2013	2200 14	2 0	0	0	3.9	56	25	20.9	4.8	358	78
ma	Central Coast Valleys	5/22/2013	2300 14	2 0	0	0	3.7	53.5	26	19.9	4.5	33	n
ma	Central Coast Valleys	5/22/2013	2400 14	2 0	0	0	3.7	47.4	33	20	5.4	189	
ma	Central Coast Valleys	5/23/2013	100 14	3 0	0	0	3.6	48.1	34	19.1	4.4	181	76
ma	Central Coast Valleys	5/23/2013	200 14	0	0	0	4.1	43	43	22.1	1.7	128	75
ma	the second second second second	5/23/2013	300 14	0	0	0	4.8	40.2	57	28.2	3.5	88	74
		5/23/2013	400 14	1 10 10	0	0	4.7	38.6	59	25.4	4.5	95	73
		5/23/2013	500 14	1	0	2	4.2	37.5	55	22.7	3.7	32	72
	1.18 (1975) (1970) (1970)		-7(12)	A	Sec. Sec.		and the second s					55	
na	Central Coast Valleys	5/23/2013	600 14	0	0	138	4.5	37.8	68	24.6	4.4	55	71
						Ave	rages	37.7	57	23.7	4.1		
na	Central Coast Valleys	5/23/2013	700 14	0.01	O	515	5.2	44.9	61	27.8	4.5	60	70
na	Central Coast Valleys	5/23/2013	800 14	0.01	0	922	4.8	53.3	34	26	3,5	16	-
-	Central Coast Valleys	5/23/2013	900 14	0.02	0	1308	5.6	55.9	37	29.8	3	76	
na	Central Coast Valleys	5/23/2013	1000 14	0.02	0	1650	6.1	57.5	38	32	4	349	
		5/23/2013	1100 14		0	1902	5.5	61.5	30	29.4	4.5	11	
2.1	Central Coast Valleys	1	1200 14		0	2020	5.4	64.5	26	28.7	4.7	3	
	Central Coast Valleys		1300 143		0	2030	5.3	66	24	28.7	5.7	326	
		5/23/2013	1400 143		0	1910	5.3	69.1	22	28.6	7.3	42	
			4		Ö			70.1	20	26.7	9	71	73
-		5/23/2013	1500 143			1677	4.9					28	72
	NY CONTRACTOR	5/23/2013	1600 143		0	1359	5	70.2	20	27.1	9.4		
-		5/23/2013	1700 143	1 - 17 XC	0	973	5.1	69.1	21	27.5	10.5	30	72
_	and the second se	5/23/2013	1800 143	the second second	0	559	5.2	67.2	23	28	10.9	3	72
na	Central Coast Valleys	5/23/2013	1900 143	0.01	0	174	4.8	64.5	23	26.3	9.6	7	72
na	Central Coast Valleys	5/23/2013	2000 143	0	0	3	5.5	59.6	32	29.4	4	28	
na	Central Coast Valleys	6/23/2013	2100 143	0	0	0	7.2	54.1	51	36.2	3.6	260	-
na	Central Coast Valleys	5/23/2013	2200 143	0	0	3	7.2	51.2	56	38.1	3	261	
	and the second	5/23/2013	2300 143		0		5.9	46.7	55	31.3	3.5	166	
	the second se				0							233	
								2010		and the second sec			
	and the second second second second										and the second se		
								and the second se					
1				1-1-1				-				and the second s	
na	Central Coast Valleys	5/24/2013	500 144	0	0	4	5.7	39.3	70	30.2	4.1		
na	Central Coast Valleys	5/24/2013	600 144	0	0	146	6.3	40.6	74	32.9	4.5	89	
na	Central Coast Valleys	5/24/2013	700 144	0.01	0	540	6.9	46.7	63	34.9	5.2	58	78
na	Central Coast Valleys	5/24/2013	800 144	0.01	0	943	7.2	55.9	47	36.2	4.8	104	
		5/24/2013	900 144	0.02	0	1334	7.2	60	40	36	3.7	131	61
11		5/24/2013	1000 144	0.02	0	1660	6.9	62.9	35	35.1	4.2	169	61
na la						1000							
		5/24/2012	1100 4.1	0.02	0/	1004	2.01	65.0	31	TA R	4.8	150	
na	Central Coast Valleys	5/24/2013 5/24/2013	1100 144	0.02	0	1894	6.8	65.9	31	34.6	4.B 4	286	62
na ina ina ina ina ina ina ina ina ina i	Central Coast Valleya Central Coast Valleya	5/23/2013 5/23/2013 5/23/2013 5/23/2013 5/23/2013 5/24/2013 5/24/2013 5/24/2013 5/24/2013 5/24/2013 5/24/2013 5/24/2013	2000 143 2100 143 2200 143 2200 143 2200 143 2400 144 200 144 300 144 400 144 500 144 600 144 800 144	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0 3 6 6 1 6 7 4 148 540 943	5.5 7.2 7.2 5.9 5.6 6.3 6.1 5.4 5.4 5.4 5.7 6.3 6.3 6.9 7.2	59.6 54.1 51.2 48.7 44.5 44.8 45.4 44 42.4 39.3 40.6 46.7 55.9	32 51 56 55 56 63 59 55 58 70 70 74 63 47		29.4 36.2 36.1 31.3 29.8 32.8 31.9 28.8 28.9 30.2 32.9 34.9 34.9 36.2	29.4 4 38.2 3.6 38.1 3 38.1 3 31.3 3.5 29.8 1.7 32.8 3.6 31.9 4.9 28.8 3.4 28.9 3.3 30.2 4.1 32.9 4.5 34.9 5.2 36.2 4.8	29.4 4 28 38.2 3.6 260 38.1 3 261 31.3 3.6 166 29.8 1.7 233 32.8 3.6 91 31.9 4.9 107 28.8 3.4 207 28.9 3.9 61 30.2 4.1 82 32.9 4.5 69 34.9 5.2 58 36.2 4.8 104

		_													
1-	2	luyama	Central Coast Valleys		1400 144		0	1927	6.8	73.5	24	34.5	4.7	333	65,5
8	38 C	uyama	Central Coast Valleys		1500 144	0.02	0	1695	6.8	75.4	23	34.6	5.3	345	66.5
8	38 C	luyama	Central Coast Valleys	5/24/2013	1600 144	0.02	0	1369	7.3	75.3	24	36.6	10.1	284	67.7
B	88 C	uyama	Central Coast Valleys	5/24/2013	1700 144	0.02	0	982	7.3	73.1	26	36.6	9.7	282	68.8
8	8 C	uyama	Central Coast Valleys	5/24/2013	1800 144	0.01	0	552	7.4	69.5	30	36.8	9.6	284	69.7
B	8 C	uyama	Central Coast Valleys	5/24/2013	1900 144	0	0	168	7.1	65.2	34	35.9	8.8	279	70,2
8	8 C	uyama	Central Coast Valleys	5/24/2013	2000 144	0	0	3	7.2	60.5	40	38.1	7.8	273	70.1
8	8 0	uyama	Central Coast Valleys	5/24/2013	2100 144	0	0	0	7.2	57.7	44	36.2	8.3	264	69.8
B	52 C	uyama	Central Coast Valleys		2200 144	0	0	0	6.6	55.3	44	34	6.2	256	69.2
B	0.1	uyama	Central Coast Valleys		2300 144		0	0	6.7	52.5	50	34.2	2.6	242	68.5
1.5	-					and the second	Contraction of the Contraction		and the second sec	20.9		33.8	2.7	167	67.8
B	1	uyama	Central Coast Valleys		2400 144	and in	O	0	6.6	47.9	58	and the second s			
B	8 0	luyama	Central Coast Valleys	5/25/2013	100 145	0	0	0	6.3	44.4	63	32.6	3.6	167	67
8	8 C	uyama	Central Coast Valleys	5/25/2013	200 145	0	0	0	6.5	43.8	67	33.6	3	126	66.3
B	8 0	uyama	Central Coast Valleys	5/25/2013	300 145	0	0	0	6.7	43.8	69	34.2	4.4	129	65.5
8	8 0	uyama	Central Coast Valleys	5/25/2013	400 145	0	0	0	6.3	41.5	70	32.6	2.5	134	64.7
8	8 0	uyama	Central Coast Valleys	5/25/2013	500 145	0	0	3	6.4	41.4	72	33.2	4.1	104	63.9
8	S	uyama	Central Coast Valleys	5/25/2013	600 145	0	0	152	6.7	43.4	70	34.3	5	103	63.2
8	1	uyama		5/25/2013	700 145		0	522	7.2	50	59	36.2	6	86	62.5
8		uyama	Contraction of the second s	5/25/2013	800 145		0	683	7.2	57.8	44	36.2	4.7	92	61.9
	2 (and the second s		3.9	86	61.7
8		uyama	a second second second second second	5/25/2013	900 145		0	1336	6.6	64.7	32	34			
8	18 Ci	uyama	Central Coast Valleys	5/25/2013	1000 145	0.02	0	1666	6.4	69.2	26	33.2	3.4	322	62
B	8 0	uyama	Central Coast Valleys	5/25/2013	1100 145	0.03	0	1898	6.5	71.7	24	33.4	5.1	319	63.1
8	8 C	uyama	Central Coast Valleys	5/25/2013	1200 145	0.03	0	2011	6.1	73.5	22	32.1	5.3	305	64.7
8	8 C	uyama	Central Coast Valleys	5/25/2013	1300 145	0.03	0	2020	6,1	76.1	20	32	5.1	297	66.6
8	8 C	uyama	Central Coast Valleys	5/25/2013	1400 145	0.03	0	1910	6.3	11	20	32.9	7.2	290	68
8		uyama	Central Coast Valleys	5/25/2013	1500 145	5.531	0	1677	7.6	77.1	24	37.5	9.2	288	69.3
8		uyama		5/25/2013	1600 145		0	1358	7.7	75.3	26	37.8	10.2	288	70.6
8	-		the second second	5/25/2013	1700 145		0	976	7	73.1	25	35.4	10.3	283	71.8
1.1		uyama		5/25/2013			-			69.8	25	32.8	9.9	203	72.6
8		uyama	Central Coast Valleys	1000 million (1997)	1800 145		0	565	6,3			2/0/10	the second se	and the second se	
8	100	uyama		5/25/2013	1900 145	and the second second	0	174	5.4	64.8	26	29.2	9.6	270	73
8	8 C	uyama	Central Coast Valleys	5/25/2013	2000 145	0	0	3	6,3	60.3	35	32.8	8,7	267	72.9
8	8 C.	uyama	Central Coast Valleys	5/25/2013	2100 145	0	0	0	7.1	57.1	45	35.9	7	267	72.4
8	8 C	uyama	Central Coast Valleys	5/25/2013	2200 145	0	0	0	7.9	53.8	56	38.6	4.3	265	71.7
8	8 Cu	uyama	Central Coast Valleys	5/25/2013	2300 145	0	0	0	8	51.8	61	38.7	2.9	273	70.9
8	8 6	uyama	Central Coast Valleys	5/25/2013	2400 145	0	0	0	7.8	48.7	67	38.1	2.3	122	70.1
8	1.1	uyama		5/26/2013	100 146		0	0	7.1	48.2	66	35.6	3.2	174	69.3
8	-		1	5/26/2013	200 146		0	0	6.8	44.6	68	34.5	1.6	152	68.5
	1	uyama						the second se				a me			67.6
8		uyama		5/26/2013	300 146	0	D	0	6.4	44.6	63	33	2.5	192	
8	8 Ci	uyama	Central Coast Valleys	5/26/2013	400 146		0	0	5.6	42.1	61	29.8	2.4	212	66.8
8	8 C.	uyama	Central Coast Valleys	5/26/2013	500 146	0	0	3	6.2	42.2	68	32,4	3.1	130	66
84	8 Cu	uyama	Central Coast Valleys	5/28/2013	600 146	0	D	150	7	44.8	69	35.4	2.5	144	65.2
B	8 0.	uyama	Central Coast Valleys	5/26/2013	700 146	0.01	0	519	7.4	52.9	54	36.7	2.6	101	64.4
88	8 C	uyama	Central Coast Valleys	5/26/2013	800 146	0.01	0	911	7.3	58.4	44	36.5	2.8	58	63.9
88	alo	uyama	Central Coast Valleys	5/26/2013	900 146	0.02	0	1293	8	62.2	42	38.9	4.5	54	63.7
B		uyama	and the second second second second	5/26/2013	1000 146		0	1621	8	64.7	38	38.6	4.7	47	64.1
						and the second								353	
BR	1			5/26/2013	1100 146		0	1856	7.6	66.5	35	38	6.5		65
- 86	BCL	uyama	1. V	5/26/2013	1200 146	0.03	0	1984	7.7	68.8	32	37.8	6.2	359	66.4
88	8 Cu	uyama	Central Coast Valleys	5/26/2013	1300 146	0.03	0	1995	7.5	70.8	29	37.3	6.4	349	68.1
BE	8 CL	uyama	Central Coast Valleys	5/26/2013	1400 146	0.03	0	1896	7.2	72.7	26	36.2	6.4	349	69.4
88	8 C.	uyama	Central Coast Valleys	5/26/2013	1500 146	0.03	0	1677	7.4	74	26	36.7	7.8	356	70.5
60	8 Cu	uyama	Central Coast Valleys	5/28/2013	1600 146	0.02	0	1360	7.4	74.4	25	36.8	7.8	350	71.8
88	8 Cu	uyama	Central Coast Valleys	5/26/2013	1700 146	0.02	0	975	7.4	74.5	25	36.8	10.2	349	73
	100	uyama	Central Coast Valleys		1800 146	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	0	564	7.6	73.3	27	37.5	10.1	344	73.9
	80		Central Coast Valleys		1900 146	7257	0	166	8.5	70.3	33	40.2	6.6	317	74.4
	1		 COLUMN A DOWN DATE OF A DESCRIPTION 	and the second second second						CD/ and a		the state of the s			
88	1		Central Coast Valleys		2000 146		0	2	9.8	64	48	44	7.9	280	74.5
88	200	Contract.	Central Coast Valleys	Contraction of the second	2100 146		0	0	10	61	54	44.4	5.7	284	74.2
88	BCu	yama	Central Coast Valleys	5/26/2013	2200 146	and the second	0	0	10.1	59.2	59	44.8	5	279	73.7
88	BCu	yama	Central Coast Valleys	5/26/2013	2300 146	0	0	0	10	67.2	62	44.5	3.4	280	73.1
88	Cu	yama	Central Coast Valleys	5/26/2013	2400 146	0	0	0	9.3	54.2	65	42.7	3.1	215	72.3
88	Cu	yama	Central Coast Valleys	5/27/2013	100 147	0	0	0	9	52.3	68	41.9	1.5	168	71.6
88	Cu	yama	Central Coast Valleys	5/27/2013	200 147	0	0	0	8.6	49.2	72	40.6	3.1	146	70.8
88	Cu		Central Coast Valleys		300 147	0	0	0	8.8	48.9	75	41.3	3	122	70
88	-		Central Coast Valleys		400 147	0	0	0	9.3	50.9	73	42.6	5,3	103	69.2
88	1		and the second	5/27/2013	500 147	0	0	3	9	51	71	41.8	7.1	135	68.4
88	1	2219-1		5/27/2013	60D 147	0	0	156	9	52.2	67	41.7	7	119	67.7
	100	S								and the second second		Contract of the second second		123	66.9
	1.1		Central Coast Valleys		700 147	0.01	0	522	8.9	55.9	58	41.5	8.4		
88	1		Central Coast Valleys	Contraction of the	800 147	0.01	0	917	8.5	58.8	50	40.4	7.3	110	66,4
88	1.00	0 h h h h h h	Central Coast Valleys		900 147	0.02	0	1301	8	61.9	42	38.7	4.5	65	66.1
68	Cu	yama	Central Coast Valleys	5/27/2013	1000 147	0.02	0	1627	7.5	64.7	36	37.1	4,4	106	66.4
88	Cu	yama	Central Coast Valleys	5/27/2013	1100 147	0.03	0	1854	8	68.9	35	38.6	7.5	344	67.2
88	Cu	yama	Central Coast Valleys	5/27/2013	1200 147	0.03	0	1941	7.9	68.8	33	38.5	8	349	68.7
88			Central Coast Valleys	5/27/2013	1300 147	0.03	0	1976	6.8	71.6	26	34.6	8.8	360	70.4
88	1		Central Coast Valleys		1400 147	0.03	0	1842	6.3	73.3	23	32.8	9.1	350	71.6
88	1		in the second	5/27/2013	1500 147	0.02	0	1296	5.7	73.5	20	30.3	10.8	345	72.6
	-		and the second se		1600 147	0.02	0		6.1	72.2	23	32	9.6	339	73.5
88		200 Com	Central Coast Valleys	and the second second		· · · · · · · · · · · · · · · · · · ·		954	7			1	10.9	341	74.2
88			Central Coast Valleys		1700 147	0.01	0	624		71.7	26	35.4			
88	-	C	Central Coast Valleys	a she was a set of the	1800 147	0.01	0	317	7.4	70.1	30	36.8	9.8	348	74.7
88	Cu	iyama	Central Coast Valleys	5/27/2013	1900 147	0.01	0	121	7.8	68.2	33	38.2	10.4	348	74.8
88	Gu	yama	Central Coast Valleys	5/27/2013	2000 147	0	0	4	9.9	65.1	47	44.2	10.9	354	74.6
88	Cu	yama	Central Coast Valleys	5/27/2013	2100 147	0	0	0	11	62.6	56	46.9	5.6	10	74.3
88	1		Central Coast Valleys	and the second second	2200 147	0	0	0	11.5	61.6	62	48.3	7.3	351	73.7
88	-			5/27/2013	2300 147	0	0	0	11.4	59.9	65	47.9	5.6	13	73.1
68	-	C. 10. 11.		5/27/2013	2400 147	0	0	0	11.1	58.8	65	47.2	4.9	38	72.5
88	-							0	10.8	56	71	46.6	3.8	143	71.8
	H CU	yama	Central Coast Valleys	5/28/2013	100 148	0	0	U	10.0	00			3.0		
88	-	yama	Central Coast Valleys		200 148	0	0	0	11	54.7	76	47.2	6.1	128	71.2

-	-													
-	B Cuyama	Central Coast Valleys	and the second sec	300 1		0	0	11.2	53.7	80	47.6	5.6	125	70.5
8	B Cuyama	Central Coast Valleys	the second se	400 1	48 0	0	0	11.7	54.4	81	48.7	5	98	69.8
8	B Cuyama	Central Coast Valleys		500 1	48 0	0	1	11.7	54.7	80	48.6	4.9	93	69.2
8	B Cuyama	Central Coast Valleys	5/28/2013	600 1	48 0	0	55	11.6	55.3	78	48.5	4.2	140	68.6
B	B Cuyama	Central Coast Valleys	5/28/2013	700 1	48 0	0	198	11.7	55.7	78	48.6	4	139	68.1
8	B Cuyama	Central Coast Valleys	5/28/2013	800 1	48 0.01	0	622	12	57.9	73	49.4	3.6	119	67.7
B	B Cuyama	Central Coast Valleys	5/28/2013	900 1	48 0.01	0	750	12.3	60.6	68	50	3.6	106	67.4
8	B Cuyama	Central Coast Valleys	5/28/2013	1000 1	48 0.01	0	612	12.5	62.2	65	50.4	5.5	37	67.4
8	1	Central Coast Valleys	5/28/2013	1100 1		0	1710	13.1	64.2	64	61.8	9.6	357	67.7
8	1	Central Coast Valleys	5/28/2013	1200 1		0	1805	13.3	65.7	62	52.2	9.6	352	68.2
111.0			1000		and the second second				3,00			10.2	351	69.1
8		Central Coast Valleys	5/28/2013	1300 1		0	2005	13.3	67.7	57	52.1			
8	B Cuyama	Central Coast Valleys	5/28/2013	1400 1	48 0.03	0	1892	13	70	52	61.4	9.3	355	70
8	Cuyama	Central Coast Valleys	5/28/2013	1500 1	48 0.03	0	1501	11	73.9	39	47.1	11,5	335	70.9
8	Cuyama	Central Coast Valleys	5/28/2013	1600 1	48 0.02	0	1342	10.4	74.3	36	45.7	12.5	335	72
8	Cuyama	Central Coast Valleys	5/28/2013	1700 1	48 0.02	0	896	10.8	73.6	38	46.6	11.2	337	73.1
8	Cuyama	Central Coast Valleys	5/28/2013	1800 1	48 0.01	0	559	11.4	72.6	42	48	9,3	346	73.9
8	Cuyama	Central Coast Valleys	5/28/2013	1900 1	48 D	0	182	11.2	70.6	44	47.6	9.2	352	74.4
8		Central Coast Valleys	5/28/2013	2000 1	the second se	0	4	11	68	47	47.1	5.9	356	74.5
8		Central Coast Valleys	5/28/2013	2100 1		0	0	11.8	64.5	57	48.8	4.1	76	74.2
-			1.						-Sea		49.1	3.9	59	73.8
B		Central Coast Valleys	5/28/2013	2200 1		0	D	11.9	61.7	63				
B	Cuyama	Central Coast Valleys	5/28/2013	2300 1	48 0	0	0	11.7	62	62	48.6	5.1	12	73.3
8	Cuyama	Central Coast Valleys	5/28/2013	2400 1	48 0	0	0	12	61.9	64	49.5	7.3	13	72.6
8	Cuyama	Central Coast Valleys	5/29/2013	100 1	49 0	0	D	12.1	60.1	68	49.8	5.3	30	72
8	Cuyama	Central Coast Valleys	5/29/2013	200 1	49 0	0	0	11.3	56	74	47.7	1.8	191	71.4
B	Cuyama	Central Coast Valleys	5/29/2013	300 1	49 0	0	٥	11.3	54.6	78	47.8	4.7	166	70.8
8		Central Coast Valleys	5/29/2013	400 1		0	0	10.9	53	80	46.B	3	84	70.2
8		Central Coast Valleys	5/28/2013	500 1		0	3	10.8	51.6	82	46.5	3.7	130	69.6
B		Central Coast Valleys	· · · · · · · · · · · ·	600 1		0	148	10.9	51.7	83	45.7	3.2	90	68.9
-			5/29/2013				0.18					21 C 1	101	68.3
8	-	Central Coast Valleys	5/29/2013	700 1		a	502	12.3	58.6	73	50	4.7		
8		Central Coast Valleys	5/29/2013	800 1		0	746	12.5	63.9	61	50.4	5.6	99	67.9
8	Cuyama	Central Coast Valleys	5/29/2013	900 1	49 0.02	0	1292	12.1	66.8	54	49.6	4.8	45	67.8
8	Cuyama	Central Coast Valleys	5/29/2013	1000 1	49 0.02	0	1582	11.5	68.9	48	48.3	5.7	113	68.2
8	Cuyama	Central Coast Valleys	5/29/2013	1100 1	49 0.03	0	1815	10.9	71.6	41	46.8	5.7	341	69
8	Contraction and	Central Coast Valleys	5/29/2013	1200 1	49 0.03	0	1953	10.6	73.8	37	46.1	6.4	359	70.4
8		Central Coast Valleys	5/29/2013	1300 1	1.1	0	1978	10.8	76.7	34	45.7	6.1	16	72
8		Central Coast Valleys	5/29/2013	1400 1		0	1879	10.2	79.5	30	45	11.6	347	73.2 Y
						_		Contraction of the second s	12.0	the second se			346	74.2 Y
Bi	Cuyama	Central Coast Valleys	5/29/2013	1500 1		0	1669	9.9	79.6	29	44.2	13		
B	Cuyama	Central Coast Valleys	5/29/2013	1600 1	49 0.02	0	1361	9.7	79.6	28	43.7	12.5	350	75.3 Y
88	Cuyama	Central Coast Valleys	5/29/2013	1700 1	49 0.02	0	985	9.5	78.9	28	43.1	13	348	78.3 Y
8	Cuyama	Central Coast Valleys	5/29/2013	1800 1	49 0.01	0	580	9.4	77.4	29	42.8	11.8	352	76.9
B	Cuyama	Central Coast Valleys	5/29/2013	1900 1	49 0.01	0	190	10.2	75.2	34	45.1	10.1	354	77.2
8	Cuyama	Central Coast Valleys	5/29/2013	2000 1	49 0	0	4	10.8	72.1	40	46.7	8.5	347	77.2
8	100 million 100	Central Coast Valleys	5/29/2013	2100 1	13	0	0	10	69.6	40	44.5	11.2	350	76.9
BE		Central Coast Valleys	5/29/2013	2200 1	1994 - C	0	0	8.7	56.9	39	41	10.8	341	76.4
2.43					and the second sec	and the second second second second		- Contraction of the state of the	63.9	and the second sec	40.9	5.3	339	75.7
BE		Central Coast Valleys	5/29/2013	2300 1	2	0	0	8.7		43				
88	Cuyama	Central Coast Valleys	5/29/2013	2400 1	49 0	0	0	8.7	62.6	45	41	3.6	127	75.1
BE	Cuyama	Central Coast Valleys	5/30/2013	100 1	50 0	0	0	8.7	60.4	49	41	6.6	139	74.3
88	Cuyama	Central Coast Valleys	5/30/2013	200 1	50 0	0	0	9.1	57.2	57	42.2	6.4	137	73.6
88	Cuyama	Central Coast Valleys	5/30/2013	300 1	50 0	0	0	9.1	56.2	59	42	7.6	135	72.8
88	Cuyama	Central Coast Valleys	5/30/2013	400 1	50 0	0	0	9.1	53.7	64	42	6.8	142	72.1
88	Cuyama	Central Coast Valleys	5/30/2013	500 1	50 0	0	3	8.9	52	68	41.6	5.5	164	71.3
68		Central Coast Valleys	1	600 1	S	0	160	9.3	53.1	68	42.8	3.2	84	70.6
88		Central Coast Valleys		700 1		0	525	10.2	57.8	62	45	4.5	59	69.9
	1000								1000					
88	10.10 M		5/30/2013	800 1		0	923	9.9	64.7	48	44.4	4.7	111	69,4
88			5/30/2013	900 1	and the second sec	0	1310	9.5	68.2	40	43.1	4	157	69.3
88	Cuyama	Central Coast Valleys	Contraction of the second second	1000 1	50 0.02	0	1640	8.8	71.5	34	41.3	4.1	71	69.7
BE	Cuyama	Central Coast Valleys	5/30/2013	1100 1	50 0.03	0	1873	8.5	74.2	29	40.2	7.3	349	70.6
66	Cuyama	Central Coast Valleys	5/30/2013	1200 1	50 0.03	0	2003	8.2	76.1	27	39.3	7.6	344	72 Y
88	and the second second	Central Coast Valleys	and the second sec	1300 1	50 0.03	D	2015	7.5	78.7	22	37.1	6.8	2	73.6 Y
88		Central Coast Valleys	in the second	1400 1		D	1920	6.8	80.5	19	34.7	8.1	344	74.8 Y
88	Contraction of the second	plant and a set of a set of all	5/30/2013	1500 1		Ö	1706	6.9	81,1	19	34.9	10.1	349	75.7 Y
88		Central Coast Valleys		1600 1		0	1382	6.6	81.5	18	34.1	10.1	7	76.8 Y
BE				1700 1		0	1000	6.1	81.4	17	32	10.9	358	77.8 Y
		Central Coast Valleys	Surger conductor in the									11.9	350	78.4 Y
BB			5/30/2013	1800 1		0	591	5.5	79,9	16	29.4	- Contraction of the second se		
88		2	5/30/2013	1900 1	1	0	199	6.2	77.4	19	32.5	10.5	349	78,7 Y
88	Cuyama	Central Coast Valleys	and the second	2000 11	50 0	0	4	7.7	71.3	30	37.9	6.7	66	78.6 Y
88	Cuyama	Central Coast Valleys	5/30/2013	2100 1	50 0	0	0	7.6	66.3	35	37.5	5.7	143	78.2 Y
88	Cuyama	Central Coast Valleys	5/30/2013	2200 1	50 0	0	0	7.4	64.8	35	36.8	5.3	147	77.6 Y
88		Central Coast Valleys	5/30/2013	2300 18	50 0	0	0	7.7	62.4	40	37.8	5,3	163	76.9 Y
88			5/30/2013	2400 18		0	0	7.5	60.3	42	37	5.6	175	76.1 Y
88			5/31/2013	100 15	al de	0	0	7.8	60.1	44	38.2	6.8	148	75.4 Y
			5/31/2013				0	8.1	68.9	47	39	6.8	150	74.6 Y
88	Cuyama			200 15	_	0						6.6	141	73.8
68			5/31/2013	300 18	-	0	0	8	57.8	49	38.7			
88		Central Coast Valleys	5/31/2013	400 15	1	0	0	7.7	55.8	50	37.7	7.1	158	73
88		Central Coast Valleys		500 15		0	3	7.4	53,4	53	36.6	6	166	72.3
88	Cuyama	Central Coast Valleys	5/31/2013	600 15	i1 0	0	158	7.6	54.3	53	37.5	3	183	71.8
88	Cuyama	Central Coast Valleys	5/31/2013	700 15	0.01	0	527	8.5	62.3	44	40.2	4.2	114	70.9
88			5/31/2013	800 15		0	931	7.2	68.2	30	35.9	6	112	70.4
88		Central Coast Valleys	1.0.0	900 15	A	0	1316	7	71.2	27	35.3	4.8	117	70.3
88				1000 15		0	1642	6.8	74.8	23	34.7	5	105	70.6
		Central Coast Valleys	And the second						200	23	36	9.3	350	71.5
88	Cuyama	Central Coast Valleys		1100 15		0	1877	7.2	76.9	100				
88	Cuyama		5/31/2013	1200 15		0	1995	6.7	78.9	20	34.2	10	341	72.9 Y
		Central Coast Valleys	5/31/2013	1300 15	1 0.03	0	2009	6,8	81	19	34.5	10.2	352	74.5 Y
88	Cuyama		-	and the second se				and the second se			and the second s		in the local second	
1.1.1			5/31/2013	1400 15	0.03	0	1910	6.5	82	18	33.7	9,1	343	75.6 Y

68 Cuyarra	Central Coast Villeys	5/31/2013	1600	151	0.02	0	1379	5.6	83	3 14		29.9	9.9	358	77.6
68 Cuyama	Central Coast Vaileys	5/31/2013	\$700	151	0.02	e,	593	5.7	and the second	3 15		30.4	6.8	345	78.6
88 Cuyama	Control Coast Valleys	6/31/2013	1800	151	0.01	B	578	7.1		2 19	1 · · · · · · · · · · · · · · · · · · ·	35,8	10.1	347	79.0
88 Cuyama	Central Coxet Vollays	5/31/2013	1900	151	0.01	C	194	6.3	79	7 16		32.9	8.8	348	79.6
68 Duyama	Central Goast Valleys	5/31/2013	2000	151	0)	ß	4	8	72	8 29		38.6	4.9	115	79.6
68 Cuyama	Central Goast Valleys	5/31/2013	2100	151	Q	C :	0	7.5	63	S 31		37	5.4	138	79.2
88 Cuyama	Central Coast Valleys	6/31/2013	5500	151	۵	a	a	Y.6	65	2 36		37.4	3.8	168	78.7
50 Cuyama	Central Coast Valleys	5/31/2013	2300	151	Ø	٥	0:	8.7	6 1	2 47		41	4	119	78
65 Cuyema	Central Coast Valleys	5/31/2013	2400	151	Q	5	0	9.3	57	8 57	1.000	42.6	3.8	63	77.2
	······						·			Sector 200 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 10 N	an a		a, , , , , , , , , , , , , , , , , , ,		·······

Villalobos, David

From: Sent:	Jane Slama <janeslama11@gmail.com> Monday, September 10, 2018 10:08 AM</janeslama11@gmail.com>	AGENDA ITEMS
To: Subject:	Villalobos, David Harvard North Fork Ranch Frost Ponds Project	ITEM #:3
Categories:	Purple Category	MEETING DATE: 9/12/18

Dear Planning Commissioners,

Having lived in the Cuyama Valley for sixteen years, I am fully aware of the valley's critical overdraft, and I am also aware of the decades-long absence of critical oversight in addressing this issue. Too often County officials who had the power to establish much needed guidelines for stewarding the valley's one source of water have made only weak recommendations to the largest users or, worse, said there was nothing they could do to insist on better management of this essential resource. Now, with State mandated sustainability requirements looming on the horizon, County officials should act responsibly and proactively about this understudied area. Because Harvard's proposed frost pond project will exceed thirty-one acre-feet per year and obviously affect the valley's over-drafted basin, Planning staff should prepare a completed Environmental Impact Report before making any decision about this proposal.

Sincerely, Jane Slama

RECEIVED

SEP 1 0 2018

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT

RECEIVED

SEP 1 0 2018

September 10, 2018

Chairman Dan Blough

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT

By Email: Dvillalo@co.santa-barbara.ca.us

Santa Barbara County Planning Commission c/o Santa Barbara County Planning and Development Department 123 E. Anapamu Street Santa Barbara, California 93101

	1	TEMS
*[]	Ni #:	3
aer CA1	ETING	9/12/18

Dear Chairman Blough and Fellow Commissioners:

For over 20 years, we have been growing grapes and olives and producing wine and olive oil in the western end of the arid Cuyama Valley. The farmers in the Valley, including us, the residents and the environment of our Valley rely solely on the availability of groundwater to sustain the region. The Cuyama Groundwater Basin, which is identified by the CA Department of Water Resources (DWR) as being "critically overdrafted" for many years is in process of developing an important groundwater basin management plan according to California's 2014 groundwater law (Sustainable Groundwater Management Act or SGMA). SGMA requires governments and water agencies of <u>high and medium priority basins</u> to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge.¹ While we respect the rights of farmers to grow crops in their selected production system, we also see the need to recognize the limits of our groundwater and the impacts of the overdraft. We are concerned that by the time SGMA is implemented in the Cuyama Valley (2025) the Project's reservoirs will have already been constructed and in use, impacting the neighbors, the native plants and habitats and further depleting an already severely overdrafted groundwater basin.

As explained below and in other submittals, the applicant relies on a number of unproven and geologically questionable conclusions to support its claim that the project will not cause impacts to the Cuyama Groundwater Basin. Some of these claims have been rejected by the Department of Water Resources (DWR) and others. We believe many of these claims should not be relied on by the Commission in approving this project, and instead your Planning Commission should require the preparation of an environmental impact report (EIR) that will consider whether the project, based on known science, will have a significant impact on the Cuyama Groundwater Basin.

As appellants to the North Fork Ranch Frost Pond's permit application we want to let you know:

- That we are very involved in the development of the Groundwater Sustainability Plan (GSP) for the critically overdrafted Cuyama Basin and therefore are aware of what the Cuyama Basin is facing in needing to decrease our overall groundwater extraction. (Our specific credentials and expertise are listed at the end of this letter);

¹ https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management

- That we are farmers and we support the right to farm as long as it is done in a way that does not have negative impacts on the environment;
- That we think that the application to construct three large reservoirs will have a negative impact on the Cuyama Basin, especially the neighbors to the south in Cottonwood and Schoolhouse Canyons and the ranches to the west;
- These reservoirs are not needed for frost protection since there are more efficient technologies to use that either don't require water at all or use minimal amounts;
- By the time SGMA kicks in, Brodiaea, Inc., through this Project, will have already expanded the damaging overextraction of groundwater, creating negative impacts on native plants and animals, and impact the groundwater availability to nearby neighbors.

Unfortunately, SGMA implementation will come too late. We request the Planning Commission to recognize the already known fact that the Cuyama Basin is a critically overdrafted basin - extracting beyond replenishment - and require an EIR that assesses this impact and investigates use of alternative technologies to the frost ponds.

Specifically, below we will respond to Brodiaea, Inc.'s claims regarding water availability under its North Fork Ranch vineyard on the western portion of the Cuyama Basin, and possible impacts of increased water use and potential over-drafting of groundwater.

In response to the recent claims by Mr. Ray Shady of Grapevine Capital and their geologist consultants, both representing Brodiaea, Inc., we offer the following rebuttals:

1. <u>Claim</u>: The vineyard is located in a separate groundwater basin from the rest of the Cuyama Valley, and is separated by the Russell Fault acting as a barrier to water movement.

<u>Response</u>: As stated in the community letter to the DWR regarding Santa Barbara County's request in 2016 for a modification of the Bulletin 118 boundaries for the basin, there is strong geologic evidence that the Russell Fault has been inactive for thousands of years, and is covered by over 1000 feet of water-bearing Morales formation sediments and more recent Quaternary sediments. [Jaffe et. al. letter to Timothy Godwin, DWR, April 28, 2016, attached as Exhibit 1]. DWR accepted the reasoning of this letter and denied the boundary modification, concluding:

"The provided technical information did not adequately demonstrate support for the modifications to the basin boundaries due to:

- 1) It was not demonstrated that the Russel Fault is a hydrogeologic barrier to groundwater flow adequate to subdivide the basin, and
- 2) The external boundary modifications described in the USGS report did not consistently follow geologic contacts used to defined units consistent with the alluvial basin definition."²

² https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Basin-Boundary-Modifications/Files/Final_2016_Basin_Boundary_Modifications.pdf

Most of the wells on the vineyard (west) side of the fault are less than 1000 feet deep, hence it would appear that water might move in both directions across the top of this fault, although there is very limited data on water movement to back either claim. A dedicated depth-dependent monitoring well (similar to the construction of several wells installed for the last USGS study) would be needed to clarify this issue. In addition, the consultants developing the Cuyama Basin GSP (Woodard and Curran) have analyzed the scientific reports on the permeability of the Russell Fault and have concluded that there are different scientific opinions and this would need to be further investigated before Brodiaea's claims can either be confirmed or refuted.

- 2. <u>Claim</u>: The separate sub-basin has significant sources of inflow of groundwater from the south and north through significant feeder systems, and helps maintain the irrigation needs of the vineyard without impacting the Basin overdraft. <u>Response</u>: There are no hard data to back up this claim, including such details as any streamflow monitors, water quality data to back up claims of origin, or well usage data. This lack of data was cited in Sweetkind, et al. (Sweetkind, D.S., Faunt, C.C., and Hanson, R.T., 2013, Construction of 3-D geologic framework and textural models for Cuyama Valley groundwater basin, California: U.S. Geological Survey Scientific Investigations Report 2013–5127, 46 p.) regarding the South Cuyama Fault. In summary, the western portion of the Cuyama Basin is geologically complex with multiple faults, and it has been recognized by USGS and Cuyama Basin GSA Consultants Woodard and Curran that the geology of this area has not been studied sufficiently to determine the permeability of these faults. These findings are needed information to determine whether neighboring wells will be impacted.
- 3. <u>Claim</u>: The pumpage by the vineyard will not impact neighbors to the north, south, and west, especially those of us living in the Cottonwood Canyon area since there is a prominent fault blocking water flow such that Cottonwood Canyon wells will not be impacted from Briodiaea's drawing from their nearby wells.

<u>Response</u>: If this fault does not isolate the sections of the groundwater basin, then Brodiaea's pumping to fill the frost ponds will impact farmers in Cottonwood Canyon, including ourselves. Brodiaea's argument is only hypothetical, since there is no data available regarding the permeability of faults south of the vineyard. Santa Barbara County has been monitoring several wells in the Cottonwood Canyon area since September 2016. While data is too short-term to show permanent trends, our own well (data available from Santa Barbara County Water Agency) has shown a worrisome downward trend:

(Numbers are depth to static groundwater level)

October 2016: 119.4 feet (at end of 5 years of drought) September 2017: 120.5 feet (at the end of an above average wet year) September 2018: 123.3 feet (at the end of a drought year) While more study is needed to verify the cause of this downward trend, it correlates with the increased pumping by the North Fork Vineyards.

We have investigated the geology of our area, and there is a fault extending through the ridge between Schoolhouse Canyon and Cottonwood Canyon, but it appears to dive deeply before it crosses Cottonwood Canyon and can only be hypothesized from there on. It is probably associated with the narrow strip of Santa Margarita Formation imbedded in Morales Formation that occurs on the ridge, but not further to the west or crossing Cottonwood Canyon. The fact that water-dependent riparian vegetation, especially sycamores, extend for the entire length of Cottonwood Creek (from the South Cuyama fault at the base of the Sierra Madre Mountains to the confluence with the Cuyama River) would imply that there is no barrier to the eventual flow of water down the watershed to the river. If this is true as we suspect, Brodiaea's pumping will harm wells in Cottonwood Canyon.

- 4. <u>Claim</u>: The vineyard is using less than a depth of 1-2 feet of water per year (AFY) to irrigate their vines, and this is the amount that will be needed into the future. <u>Response</u>: This is a very low water use for grapes in our arid region. If this figure is based on actual water use, it must be remembered that this was the first year that the grape plants had been planted and it was a wet year. Plants that are small have limited root systems and a very small canopy of leaves. Irrigation would normally be light and frequent, using much less water than when the plants are fully developed and have high evapotranspiration (ET) of water from their leaves. A study of a vineyard in the Ventucopa area of the Cuyama Valley used a figure of 2.8 AFY for the water use part of their study of the Valley (Andersen, C., B. Dobrowski, M. Harris, E. Moreno, and P. Roehrdanz. 2009. Conservation Estimate for the Cuyama Valley: Current Conditions and Planning Scenarios. Bren School of Environmental Science and Management. UCSB, Santa Barbara, CA.).
- 5. <u>Claim</u>: The area from the Russell Fault's supposed barrier to the confluence of Cottonwood Creek on the Cuyama River creates a separate and independent sub-basin with its own sustainable 54,000 acre feet of water. <u>Response</u>: This amount of water is an estimate that has not been fully verified. It is also dependent of surface flow of water in the Cuyama River from the eastern part of the Basin for recharge. If this is the recharge source, then it is not independent, and must be included in the overall Basin management plan. Regardless, as drawdown of the supposed sub-basin occurs, as will happen during years of extended drought, all surface flow of water and associated water-depended riparian vegetation will be severely impacted, raising issues with the DWR "undesirable results" benchmark of impacts on water dependent surface ecosystems. This is especially true for the extensive riparian ecosystem of cottonwoods and willows at the confluence with Cottonwood Creek.

Needs: We need open and transparent sharing of data on pumpage, water levels, and water quality in order to document changes to the groundwater basin both beneath and in the area around the vineyards. We also need data reflecting isotopes and tritium in the pumped water from areas of the basin in order to estimate both age and origin of the water Brodiaea claims is available to supply the frost ponds. We also need at least several years of data to show real trends and impacts, but by the time we have such data it might be too late and irreversible damage to the Cuyama Groundwater Basin may have already occurred.

In summary, the western part of the Cuyama Basin has traditionally been dry rangeland and unlike the eastern portion, there have not been extensive hydrogeological studies conducted. With the installation of frost ponds with the capacity of 147 acre-feet of water and causing significant evaporation, the project can cause impacts on habitat, groundwater levels, and neighboring wells and potentially deplete groundwater in the western end of the Cuyama Valley . We ask that the Planning Commission not prejudice the goals of the 2014 California groundwater legislation by facilitating additional extraction and direct that an EIR be prepared examining impacts to the groundwater basin before this project is considered.

Thank you for your consideration.

Sincerely,

Stephen Gliessman and Roberta Jaffe Farmers and Residents Cottonwood Canyon Cuyama Valley

Our Credentials and Expertise

Stephen R. Gliessman and Roberta M. Jaffe have extensive careers in sustainable agriculture as both educators and practitioners. For almost 25 years we have been organically dry farming grapevines and olive trees in the western Cuyama Valley. We have worked with nonprofit and farmer organizations in rural communities internationally and in California to support sustainable food systems that support the local economy. Ms. Jaffe currently serves as Chair of the Standing Advisory Committee for the Cuyama Basin Groundwater Sustainability Agency and is very involved in the development of the Groundwater Sustainability Plan. Dr. Gliessman is a professor emeritus in Agroecology from the University of California Santa Cruz. Both are members of the Cuyama Valley Community Association. April 28, 2016

Timothy Godwin, Engineering Geologist California Department of Water Resources Division of Integrated Regional Water Management Sustainable Groundwater Management Section 901 P St. Sacramento, CA 95814

Re: Opposition to 3-13 Cuyama Valley Groundwater Basin Boundary Change Proposal

Dear Mr. Godwin:

We, the undersigned, request that the Cuyama Basin Boundary modification proposal submitted to the DWR by Dudek Hydrology on behalf of the County of Santa Barbara, be rejected based on the criteria identified by the Department in its basin boundary modification regulations¹. The following criteria apply in this case:

§345.2 (a) (2) The proposed boundary modification may limit the opportunity or likelihood of ...sustainable groundwater management in other basins or sub-basins;

 $\S345.2$ (b) The requesting agency is unable to provide information that would allow the Department to assess whether there is a history of sustainable management of groundwater levels in the existing or proposed basin or sub-basin; $\S345.2$ (c) ...the available scientific evidence does not support the addition, deletion, or relocation of a basin or sub-basin boundary.

Insufficient data

The basin boundary modification application submitted on behalf of Santa Barbara $County^2$ provides insufficient information to justify its approval by the Department. (345.2(b), (c))

- 1) The Cuyama Basin is not fully CASGEM compliant. Only 3 of the 17 wells used to provide required CASGEM data have the construction information required by the program. Moreover, all of these wells are located east of the proposed Russell Fault border (Appendix A). This proposal therefore would create two basins, one of which only partially complies with CASGEM monitoring requirements and a second basin, which would immediately be out of compliance with the CASGEM monitoring requirements. The lack of groundwater elevation data in the proposed Chalk Mountain sub-basin is problematic; this data is intended to provide highlevel understanding of groundwater supply conditions in each of California's groundwater aquifers. The lack of basic water level information in the western portion of the aquifer calls into question the assumptions made in the proposal.
- 2) The proposal fails to note a change in agriculture practice in the proposed Chalk Mountain sub-basin from non-irrigated rangeland to irrigated vineyards in the years since the USGS study was completed. Eleven new irrigation wells were drilled west of the Russell Fault between November 2014 and August 2015 (Appendices A and B) by a non-resident grower, new to the Cuyama Valley. The

wells will be used for irrigation and frost protection for an initial planting of one million grapevine starts on 500 acres of vineyard. The total property owned by this entity totals 7,500 acres, with phased plans for vineyard expansion. If all 7,500 acres are planted, irrigated acreage for the basin as a whole would increase by 19.7%. (Currently there are 38,000 acres of irrigated farmland reported in the basin³). It could be argued that any increase in irrigated acreage in a basin in a condition of critical overdraft is significant. A nearly 20% increase would certainly constitute a significant and unreasonable result. This new source of groundwater extraction, coupled with a lack of baseline data for the western portion of the basin and its status as a critically over-drafted basin, creates doubts that a newly formed sub-basin in this area could be managed sustainably. In addition, rangeland to the west of the property currently under transition from non-irrigated rangeland to intensive vineyard cultivation is for sale. Without the oversight of a Groundwater Sustainability Agency and a DWR-approved Groundwater Sustainability Plan in place for the western part of the Cuyama Valley, there is concern that agriculture use of the land will continue to change and intensify demand on limited groundwater resources. Additionally, the USGS study of the basin which forms the basis for the proposed basin boundary change pre-dates this significant new use of water. Its findings should be updated prior to any boundary modification being considered.

3) The proposal fails to scientifically justify its selection of the Russell Fault as the boundary line for sub-basins. Detailed geologic studies by Robert Yeats and his students, summarized in a peer-reviewed scientific journal publication by Yeats and others (Yeats, et al., 1989)³ show that the Russell Fault is an ancient fault that cuts older bedrock, but the fault does not cut water-bearing units including the Morales Formation and younger alluvial sediments that overlie the Morales. If the Russell Fault does not cut the water-bearing units as noted by Yeats and others, then the fault is unlikely to be a barrier to groundwater flow and therefore not a groundwater basin boundary. Furthermore, no CASGEM monitoring wells are located near this fault line, on either the east or west side, to provide any understanding of groundwater flow and volume. (Appendix A). The lack of substantial scientific data is further supported by the USGS study in: Geology, Hydrology, and Geomechanics of the Cuyama Valley Groundwater Basin (2008-12), "Several faults that offset the basin-fill deposits, associated with measured water-level offsets, are *inferred* to impede groundwater movement (Upson and Worts, 1951; Singer and Swarzenski, 1970; fig.2). Because the faults do not intersect land surface and are not readily apparent in the unconsolidated surface sediments, their locations have been inferred from well data and topographical features." (Italics are ours.) As scientists who wanted the study to reflect an accurate summary, but were constrained by the imposed limitations of the sponsoring entity (Santa Barbara County), their use of the word inferred in the final report and reference to previous studies demonstrates their inability to make a conclusive scientific statement regarding the arbitrary end point to the study. Moreover, the effect on groundwater flow of significant new groundwater extraction on the west side of the fault (as noted in #2 above) has not yet been examined.

Governance concerns

While the boundary modification request is based on scientific information, it is predicated on the belief that the Chalk Mountain sub-basin, once established, will in short order be:

- a) determined *not* to be in a state of critical overdraft, and
- b) be reprioritized as a low-priority basin. (Naftaly email, March 3, 2016)⁵.

The acceleration of well drilling and groundwater extraction in the proposed Chalk Mountain sub-basin, and the limited understanding of how that extraction impacts the basin as a whole, make such findings problematic. We have a high level of concern for creating the sub-basin and recommend against creation of the sub-basin. We also oppose the proposal by the Santa Barbara County to remove the critical overdraft designation from the proposed Chalk Mountain sub-basin and change it to a low priority basin. We assert that the western region should remain part of the main basin and not be reclassified from medium priority since to date there is no baseline data, and there is significant change taking place in agricultural practices and groundwater use in this part of the Cuyama Valley.

Conclusion

We sympathize with the interests of the proponents to limit their basin boundaries to better manage their resources. But changing basin boundaries is a serious matter that must be based on sufficient science. There is currently not sufficient scientific evidence to separate the Valley into a main basin and sub-basin at the Russell Fault. In addition, the recent change in agricultural practices in the western part of the Cuyama Valley and dramatic increase in agricultural well drilling calls for keeping the western region designated as medium priority. And the proponents do have an option. The Sustainable Groundwater Management Act allows any number of Groundwater Sustainability Agencies and Plans to be developed within a basin, provided they do not have overlapping boundaries and that a single point of contact for coordinating and submitting plans is identified. We recommend that the County retain the basin boundary as currently drawn in Bulletin 118 in order to maintain the integrity of the Cuyama Valley basin. Given the current state of understanding of the basin in its entirety, we believe this to be the best option.

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely,

50 Concerned residents, landowners and others with interest in the Cuyama Valley (See signatures below.)

Attachments: Appendix A: map of basin 3-13 Appendix B: spreadsheet of west basin well-drilling activity, 2014-2015 Endnotes

1) Refer to the SGMA Basin Boundary Regulations ("SGMA Regs").

2) The Boundary Basin Modification Proposal submitted by Dudek Engineering on behalf of Santa Barbara County ("Proposal").

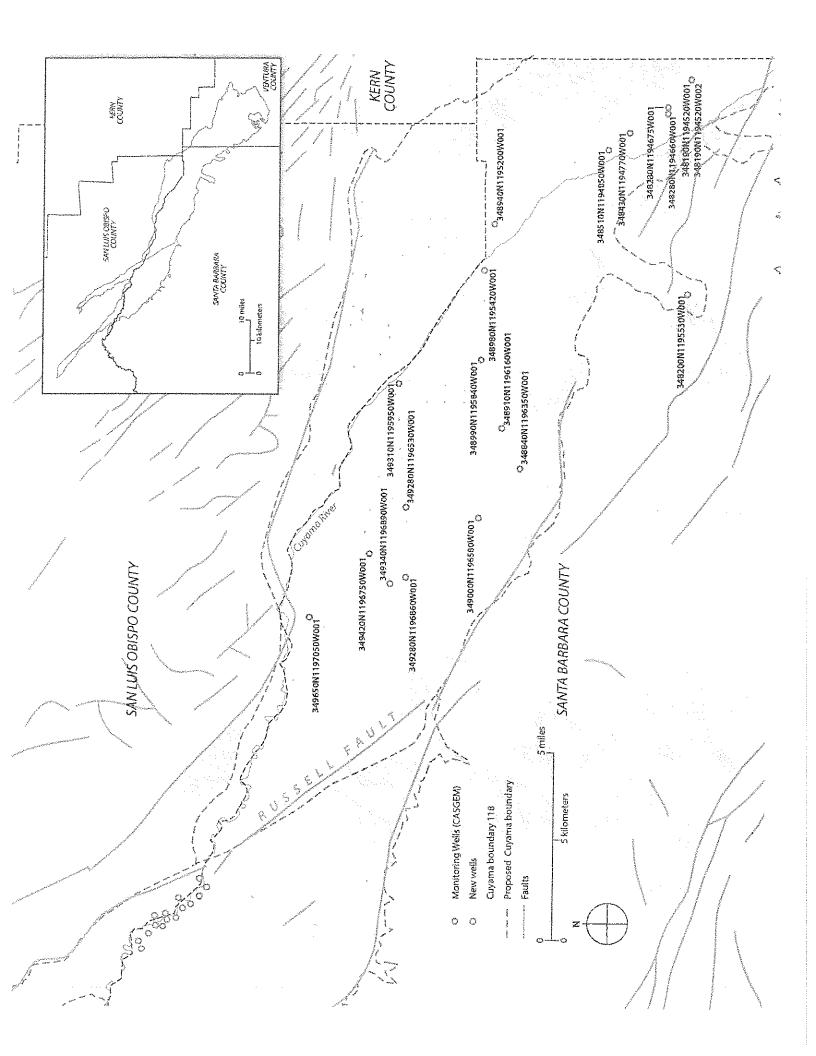
3) In the Cuyama Valley Community Association Town Hall meeting of October 21, 2015 the following information was reported:

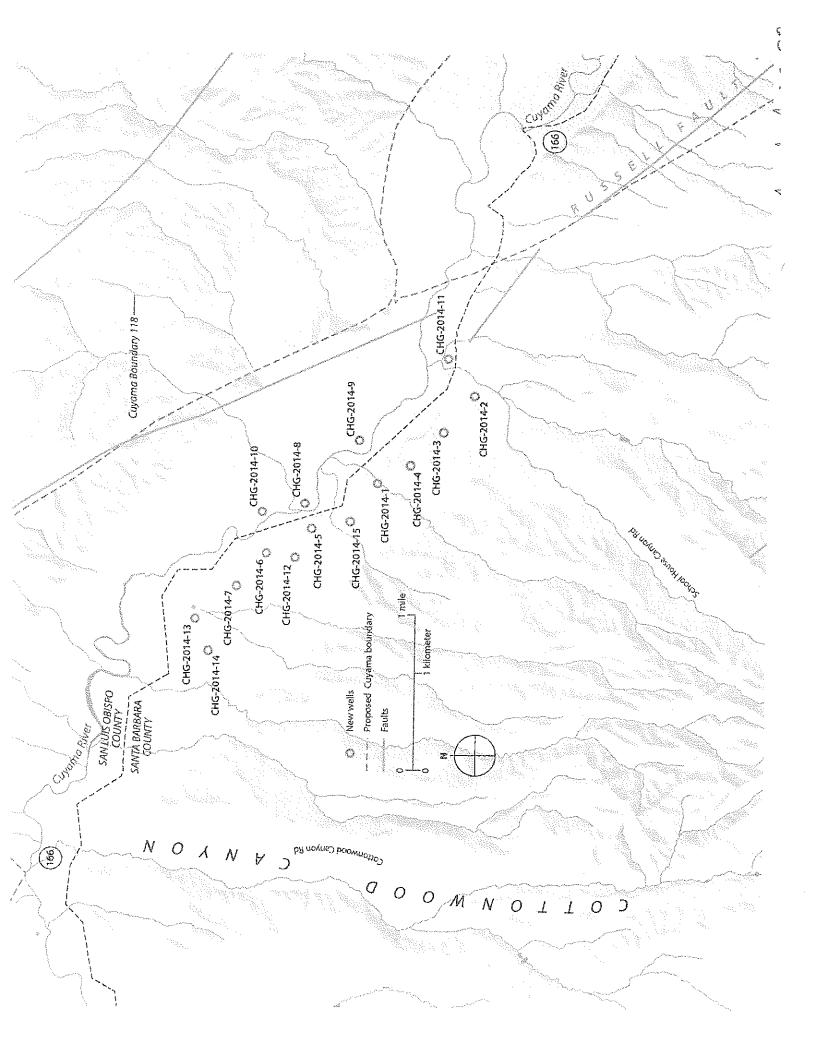
There are 147,000 acres in the eastern portion of the Cuyama Valley (with the Russell Fault as the western boundary). Of those acres, 38,000 are irrigated agricultural land.

4) A detailed study of the Russell Fault, showing location, geological formation, possible faulting changes, and possible function related to groundwater that refers to its transmissivity and permeability: Yeats, R.S., J.A. Calhoun, B.B. Nevins, H.F. Schwing, and H.M. Spitz. 1989. Russell Fault: Early Strike-Slip Fault of the California Coast Ranges. *The American Association of Petroleum Geologists Bulletin*. Vol. 73 (9): 1089-1102.

5) The 2014 USGS Study of the Cuyama Valley groundwater system, ("USGS") that demonstrates critical overdraft and subsidence in the eastern portion of the Valley is available at: http://ca.water.usgs.gov/projects/cuyama/cuyama-valley-groundwater.html.

6) The e-mail announcement of the Proposal communicated by Matt Naftaly of Dudek on March 3rd, 2016; ("Naftaly"): "This email is an update on the Basin Boundary Modification for the Cuyama Valley Groundwater Basin. Working in conjunction with the Department of Water Resources (DWR) the County will revise the current application to include as a sub-basin the area west of the Russell fault and within the existing DWR Bulletin 118 boundary (see map attached). This is an appropriate distinction because of the limited connectivity and differing groundwater and land use conditions of the two areas. It will allow for effective management in the existing Cuyama Valley Groundwater Basin and independent evaluation of the area west of the fault. The basin boundary revision process requires that DWR reevaluate the priority of each affected basin and it is expected that based on prioritization criteria, the Cuyama Valley Groundwater Basin will remain classified as medium priority and the sub-basin will be classified as low priority. The sub-basin west of the Russell fault has been preliminarily named the *Chalk Mountain Sub-Basin*."





Appendix B

Parcel Permit no. Latitude Longitude Drilling Dates Depth, boring, ff completed, fg 147-020-040 SR0109409 35.01222 -119.84167 11/16/14 11/21/14 960 900 147-020-040 WP0000466 35.01292 -119.84167 11/16/14 11/21/14 960 900 147-020-043 WP0000466 35.01983 -119.86071 619/16-6/25/15 670 500 147-020-043 WP0000469 35.02306 -119.86077 619/16-6/25/15 670 570 147-020-040 SR0109410 35.00320 -119.86077 619/16-6/25/15 620 570 147-020-040 SR0109411 35.00320 -119.83300 12/7/14-12/11/14 620 600 147-020-040 SR0109412 35.00597 -119.83307 12/16/14-12/13/14 606 450 147-020-040 SR0109412 35.00597 -119.83397 12/7/14-12/11/14 620 620 147-020-040 SR0109412 35.00597 -119.83972 12/16/16-12/13/14 <th>Parcel Permit no. Latitude Longitude Drilling Dates Depth, boring, ff completed, fg 147-020-040 SR0109409 35.01222 -119.84167 11/16/14 - 11/21/14 960 900 147-020-040 SR0109409 35.01283 -119.84167 11/16/14 - 11/21/14 960 900 147-020-043 WP0000466 35.01983 -119.85071 6/19/16-6/25/15 670 570 147-020-043 WP0000469 35.01477 -119.86077 6/19/16-6/25/15 670 570 147-020-040 SR0109410 35.01477 -119.84608 8/7/15-8/13/15 670 570 147-020-040 SR0109410 35.00320 -119.83180 12/7/14-12/11/144 620 600 147-020-040 SR0109411 35.00597 -119.83307 12/16/14-12/11/144 620 620 147-020-040 SR0109412 35.001833 -119.83372 12/16/14-12/11/144 620 620 147-020-040 SR0109412 35.02560 -119.83972 12/16/14-12/19/14 620</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Depth,</th> <th></th> <th></th> <th>Total</th>	Parcel Permit no. Latitude Longitude Drilling Dates Depth, boring, ff completed, fg 147-020-040 SR0109409 35.01222 -119.84167 11/16/14 - 11/21/14 960 900 147-020-040 SR0109409 35.01283 -119.84167 11/16/14 - 11/21/14 960 900 147-020-043 WP0000466 35.01983 -119.85071 6/19/16-6/25/15 670 570 147-020-043 WP0000469 35.01477 -119.86077 6/19/16-6/25/15 670 570 147-020-040 SR0109410 35.01477 -119.84608 8/7/15-8/13/15 670 570 147-020-040 SR0109410 35.00320 -119.83180 12/7/14-12/11/144 620 600 147-020-040 SR0109411 35.00597 -119.83307 12/16/14-12/11/144 620 620 147-020-040 SR0109412 35.001833 -119.83372 12/16/14-12/11/144 620 620 147-020-040 SR0109412 35.02560 -119.83972 12/16/14-12/19/14 620								Depth,			Total
147-020-040 SR0109409 35.01222 -119.84167 11/16/14 -11/21/14 -060 960 900	147-020-040 SR0109409 35.01222 -119.84167 111/16/14 -11/21/14 960 900 147-020-040 WP0000466 35.01282 -119.85019 Jul-22-15 760 960 900 147-020-043 WP0000466 35.01983 -119.85019 Jul-22-15 760 600 1147-020-043 WP0000466 35.02906 -119.85714 6/25-6/30/15 670 390 1147-020-040 WP0000468 35.02783 -119.86077 6/19/16-6/25/15 620 600 147-020-040 SR0109410 35.00320 -119.83601 12//14-12/11/14 620 600 147-020-040 SR0109411 35.003320 -119.83601 12//14-12/11/14 620 620 147-020-040 SR0109411 35.00357 -119.833601 12//14-12/19/14 606 620 147-020-040 SR0109412 35.00357 -119.833972 12/29/14-12/19/14 606 450 147-020-040 SR0109413 35.02550 -119.833372 12/29/14-12/19/14 606 <th>Vell name</th> <th>Parcel</th> <th>Permit no.</th> <th>Latitude</th> <th>Londitude</th> <th>Drilling Dates</th> <th>Depth, horing 4</th> <th>completed,</th> <th>Depth to first Estimated drawdown</th> <th>Estimated</th> <th>drawdown,</th>	Vell name	Parcel	Permit no.	Latitude	Londitude	Drilling Dates	Depth, horing 4	completed,	Depth to first Estimated drawdown	Estimated	drawdown,
147-020-040 WP0000466 35.01983 -119.85019 Jul-22-15 760 147-020-043 WP0000469 35.02906 -119.85019 Jul-22-15 760 147-020-043 WP0000469 35.02906 -119.85017 Jul-22-15 760 147-020-043 WP0000468 35.02783 -119.85017 Jul-22-15 670 147-020-043 WP0000468 35.02783 -119.86077 Jul-22-15 670 147-020-040 SR0109410 35.02783 -119.86180 B77/14-12/11/14 620 147-020-040 SR0109411 35.00320 -119.83180 12/7/14-12/19/14 620 147-020-040 SR0109412 35.01833 -119.83972 12/29/14-1/2/19/14 620 147-020-040 SR0109413 35.01833 -119.83972 12/29/14-1/2/19/14 620 147-020-040 SR0109413 35.01833 -119.83933 670 740 147-020-040 SR0109415 35.02526 -119.85343 670-6/16/15 720 147-020-043 SR0109415	147-020-040 WP0000466 35.01983 -119.85019 Jul-22-15 760 147-020-043 WP0000469 35.02906 -119.85019 Jul-22-15 760 147-020-043 WP0000469 35.02906 -119.85077 6/19/16-6/325/15 670 147-020-040 WP0000468 35.02783 -119.86077 6/19/16-6/325/15 620 147-020-040 SR0109410 35.02320 -119.84608 B/7/15-8/13/15 620 147-020-040 SR0109411 35.00597 -119.83601 1277/14-12/19/14 620 147-020-040 SR0109412 35.00597 -119.83501 127/14-12/19/14 620 147-020-040 SR0109412 35.01833 -119.845461 7/315-7/17/14 620 147-020-040 SR0109412 35.02560 -119.849372 7/8/15-7/17/15 740 147-020-040 SR0109415 35.02556 -119.849372 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02556 -119.849372 7/13/15 720 147-020-040 <td< td=""><td>G-2014-1</td><td>147-020-040</td><td>SR0109409</td><td>35 012221</td><td></td><td>1414614 A 410414 A</td><td></td><td>111</td><td></td><td>Vield, G</td><td>11</td></td<>	G-2014-1	147-020-040	SR0109409	35 012221		1414614 A 410414 A		111		Vield, G	11
147-020-040 35.01963 -119.85019 Jul-22-15 760 147-020-043 WP0000469 35.02906 -119.85714 6/25-6/30/15 670 147-020-043 WP0000469 35.02783 -119.85714 6/25-6/30/15 670 147-020-040 WP0000468 35.02783 -119.86077 6/19/16-6/25/15 620 147-020-040 SR0109410 35.00320 -119.86017 6/19/16-6/25/15 620 147-020-040 SR0109411 35.00320 -119.83300 12/7/14-12/19/14 620 147-020-040 SR0109412 35.00317 -119.83972 12/29/14-12/19/14 620 147-020-040 SR0109413 35.01833 -119.849472 7/13/15 740 147-020-040 SR0109413 35.02526 -119.85343 6/10-6/16/15 720 147-020-040 SR0109415 35.02526 -119.85343 6/10-6/16/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 720	147-020-043 WP 0000469 35.01963 -119.85019 Jul-22-15 760 147-020-043 WP0000469 35.02783 -119.85714 6/25-6/30/15 670 147-020-043 WP0000469 35.02783 -119.85714 6/25-6/30/15 670 147-020-040 SR0109410 35.00320 -119.86077 6/19/16-6/25/15 620 147-020-040 SR0109411 35.00320 -119.83180 12/7/14-12/11/14 620 147-020-040 SR0109412 35.00327 -119.833601 12/16/14-12/19/14 620 147-020-040 SR0109412 35.00337 -119.833601 12/17/14-12/19/14 620 147-020-040 SR0109412 35.01833 -119.83372 12/29/14-1/5/15 740 147-020-040 SR0109413 35.01833 -119.84972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02250 -119.84972 7/8/15-7/12/15 720 147-020-043 SR0109415 35.02250 -119.84972 7/8/15-7/17/15 740 147-020-043	0-2034-43	117 000 040	14/20000100	4440-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	ĺ	41/17/11 - 41/01/11			200	324	284
147-020-043 WP0000469 35.02906 -119.85714 6/25-6/30/15 670 147-020-043 WP0000470 35.02783 -119.86077 6/19/16-6/25/15 620 147-020-040 WP0000468 35.02783 -119.86077 6/19/16-6/25/15 620 147-020-040 SR0109410 35.00320 -119.8408 8/7/15-8/13/15 810 147-020-040 SR0109411 35.00320 -119.83180 12/7/14-12/11/14 620 147-020-040 SR0109412 35.00307 -119.833601 12/7/14-12/11/14 620 147-020-040 SR0109412 35.00597 -119.84964 7/13/15 740 147-020-040 SR0109413 35.01833 -119.849972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.84972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 720	147-020-043 WP0000469 35.02906 -119.85714 6/25-6/30/15 670 147-020-043 WP0000470 35.02783 -119.86077 6/19/16-6/25/15 620 147-020-040 WP0000468 35.02783 -119.86077 6/19/16-6/25/15 620 147-020-040 SR0109410 35.00320 -119.84608 8/7/15-8/13/15 810 147-020-040 SR0109411 35.00320 -119.83601 12/7/14-12/19/14 620 147-020-040 SR0109411 35.00327 -119.83901 12/16/14-12/19/14 620 147-020-040 SR0109413 35.01833 -119.83972 12/29/14-1/5/15 740 147-020-040 SR0109414 35.0256 -119.84972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710 147-020-0243 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	0.4/14-16	141-020-040	1VF-UUUU466	1 35.01983		Jul-22-15	760		83	1451	* * *
147-020-043 WP0000470 35.02783 -119.86077 619.16-6/25115 620 147-020-040 WP0000468 35.01477 -119.84608 8/7/15-8/13155 810 147-020-040 SR0109410 35.00320 -119.84608 8/7/15-8/13155 810 147-020-040 SR0109411 35.00320 -119.83601 12/7/14-12/17/14 620 147-020-040 SR0109412 35.00917 -119.83601 12/16/14-12/19/14 606 147-020-040 SR0109412 35.00817 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15 740 147-020-040 SR0109413 35.02560 -119.849372 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 740 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 740	147-020-043 WP0000470 35.02783 -119.86077 61/916-6/25/15 620 147-020-040 SR0109410 35.01477 -119.84608 81/715-8113/15 810 147-020-040 SR0109410 35.00320 -119.83180 12/714-12/11/14 620 147-020-040 SR0109411 35.00320 -119.83601 12/174-12/19/14 620 147-020-040 SR0109411 35.00597 -119.83601 12/174-12/19/14 606 147-020-040 SR0109412 35.01833 -119.83972 12/29/14-1/5/15 740 147-020-040 SR0109413 35.01833 -119.8494 7/13/15 740 147-020-040 SR0109415 35.02560 -119.84972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710 147-020-028 WP00000465 35.02526 -119.85343 6/10-6/16/15 710	G-2014-13	1147-020-043	WP0000469	35.02906		6/25-6/30/15	670				
147-020-040 WP0000468 35.01477 -119.00071 01.01.01.01.01.01.01.01.01.01.01.01.01.0	147-020-040 WP0000468 35.01477 -119.84608 8/7/15-8/13/15 0.20 147-020-040 SR0109410 35.00320 -119.83608 8/7/15-8/13/14 620 147-020-040 SR0109410 35.00320 -119.83601 12/1/14-12/11/14 620 147-020-040 SR0109411 35.00597 -119.83601 12/1/14-12/19/14 606 147-020-040 SR0109412 35.00917 -119.83501 12/2/14-1/5/15 620 147-020-040 SR0109413 35.01833 -119.84594 7/3/15-7/17/15 622 147-020-040 SR0109413 35.02250 -119.84594 7/3/15-7/17/15 740 147-020-043 SR0109415 35.02256 -119.85343 6/10-6/16/15 740 147-020-028 WP00000465 35.02526 -119.85343 6/10-6/16/15 710	G-2014-14	147-020-043	WP0000470	35 02782		014014E 010ENE			C+		13/1
147-020-040 Wr U0004b6 35.0147/1 -119.84608 B/7/15-8/13/15 B10 147-020-040 SR0109410 35.00320 -119.83180 12/7/14-12/11/14 620 147-020-040 SR0109411 35.00397 -119.833601 12/7/14-12/11/14 620 147-020-040 SR0109412 35.003917 -119.83501 12/7/14-12/11/14 620 147-020-040 SR0109412 35.00317 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.849972 1/13/15-7/17/15 740 147-020-040 SR0109415 35.02550 -119.84972 7/8/15-7/17/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16 710	1+7-020-040 Wr Uu004bb 35.0147/1 -119.84608 B/7/15-8/13/15 B10 147-020-040 SR0109410 35.00320 -119.83180 12/7/14-12/11/14 620 147-020-040 SR0109411 35.00327 -119.83601 12/7/14-12/11/14 620 147-020-040 SR0109412 35.00317 -119.83601 12/7/14-12/11/14 622 147-020-040 SR0109413 35.01833 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.8494 7/13/15-7/17/15 740 147-020-040 SR0109415 35.02250 -119.84972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.022526 -119.85343 6/10-6/16/15 710 147-020-028 WP00000465 35.02526 -119.85343 6/10-6/16/15 710	C 2011 1E	1177 000 010				101 191 10-0/201 10	070		45	3021	1371
147-020-040 SR0109410 35.00320 -119.83180 12/7/14-12/11/14 620 147-020-040 SR0109411 35.00597 -119.83601 12/16/14-12/19/14 606 147-020-040 SR0109412 35.00917 -119.83601 12/16/14-12/19/14 620 147-020-040 SR0109412 35.00917 -119.83972 12/2/34-1/5/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.02550 -119.849372 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.84972 7/8/15-7/17/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	147-020-040 SR0109410 35.00320 -119.83180 127/14-12/11/14 620 147-020-040 SR0109411 35.00597 -119.83601 12/16/14-12/19/14 606 147-020-040 SR0109412 35.00597 -119.83601 12/16/14-12/16/15 620 147-020-040 SR0109412 35.00817 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.02250 -119.846972 7/8/15-7/12/15 740 147-020-043 SR0109415 35.022561 -119.85343 6/10-6/16/15 710 147-020-028 WP00000465 35.025261 -119.85343 6/10-6/16/15 710		1+1-020-040		1 35.01477J		18/7/15-8/13/15	810		2	000	00
147-020-040 SR0109411 35.00597 -119.83601 12/16/14 020 147-020-040 SR0109412 35.00517 -119.83601 12/16/14 606 147-020-040 SR0109412 35.00917 -119.83601 12/16/14 606 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 622 147-020-040 SR0109414 35.02560 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109415 35.022560 -119.849373 7/19/15-7/12/15 720 147-020-043 SR0109415 35.02256 -119.85343 6/10-6/165 710	147-020-040 SR0109411 35.00597 -119.83601 12/16/14-12/19/14 0.06 147-020-040 SR0109412 35.00917 -119.83601 12/16/14-12/19/14 606 147-020-040 SR0109412 35.00917 -119.83972 12/16/14-12/19/14 606 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.02250 -119.84972 7/8/15-7/17/15 740 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 720 147-020-028 WP0000465 35.02526 -119.85343 6/10-6/16/15 710	G-2014-2	1147-020-040	ISR0109410	35 003201		4 2/2/2/ 20/2/24	000			222	22
147-020-040 SR0109411 35.00917 -119.8360112/16/14-12/19/14 606 147-020-040 SR0109412 35.00917 -119.835072 12/29/14-1/5/15 602 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-043 SR0109415 35.02256 -119.84972 7/8/15-7/12/15 720 147-020-043 SR0109415 35.02256 -119.84972 7/8/15-7/12/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 720	147-020-040 SR0109412 35.00917 -119.8360112/16/14-12/19/14 606 147-020-040 SR0109413 35.01833 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.02550 -119.84972 7/8/15-7/17/15 740 147-020-040 SR0109415 35.02250 -119.85343 6/10-6/16/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	0-2047-2	1117 020 010	1000000				070		10/1		1981
147-020-040 SR0109412 35.00917 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.022550 -119.849972 7/16/15-7/17/15 740 147-020-040 SR0109414 35.022550 -119.84972 7/16/15-7/12/15 720 147-020-043 SR0109415 35.02526 -119.84972 7/16/15-7/12/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	147-020-040 SR0109412 35.00917 -119.83972 12/29/14-1/5/15 622 147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.02250 -119.84694 7/13/15-7/12/15 740 147-020-043 SR0109415 35.02256 -119.84972 7/19/15 720 147-020-043 SR0109415 35.02256 -119.85343 6/10-6/16/15 710 147-020-028 WP00000465 35.02526 -119.85343 6/10-6/16/15 710	0-1- 0	141-020-040	11.4601.0201	1/6900.56		12/16/14-12/19/14	808		30	040	17.8.8
147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 04.0 147-020-040 SR0109414 35.02250 -119.84694 7/13/15-7/17/15 740 147-020-040 SR0109414 35.02250 -119.84972 7/18/15-7/12/15 720 147-020-043 SR0109415 35.022526 -119.85343 6/10-6/16/15 720 147-020-043 SR0109415 35.022526 -119.85343 6/10-6/16/15 720	147-020-040 SR0109413 35.01833 -119.84694 7/13/15-7/17/15 040 147-020-040 SR0109414 35.02250 -119.84694 7/13/15-7/17/15 740 147-020-043 SR0109415 35.02250 -119.85343 6/10-6/16/15 720 147-020-028 WP0000465 35.02526 -119.85343 6/10-6/16/15 710	3-2014-4	147-020-040	SR0109412	35.00917	-119 83077	10/00/14-1/6/15	000		0.2	1040	1.14
147-020-040 SR0109414 35.02250 -119.84972 7/8/15-7/12/15 720 147-020-043 SR0109415 35.02256 -119.85343 6/10-6/16/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	147-020-040 SR0109414 35.02250 -119.84972 7/18/15-7/12/15 740 147-020-043 SR0109415 35.02250 -119.85343 6/10-6/16/15 720 147-020-028 WP0000465 35.02526 -119.85343 6/10-6/16/15 710	3-2014-5	147-020-040	SR0109413	35 01833	-110 RAGOA	7142145 7147145	770		100	411	140
147-020-043 SR0109415 35.02526 -119.84972 7/18/15-7/12/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	147-020-043 SR0109415 35.02526 -119.84972 7/16/15-7/12/15 720 147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	2-2014 8	11 17 000 010			10010.01-	01111-011011	140		191	2971	6
147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710	147-020-043 SR0109415 35.02526 -119.85343 6/10-6/16/15 710 710 147-020-028 WP0000465		141-020-040	JORU 1034 14	106220.65	-119.84972	17/8/15-7/12/15	1062		101	1005	14
	147-020-028 WP0000465	3-2014-7	147-020-043	SR0109415	35.02526	Ľ	6/10-6/16/15	10.57		5×	205	
1+1-740-740		Pending?	147-020-028	WP0000465						74	icoc	011

Well Data of new wells drilled in the western Cuyama Valley 2014-2015 on one property

Source: Well Drilling Reports, Santa Barbara County Dept. of Environmental Health

Appendix B p. 1 of 1

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely,

ĺ Conven Western Cugene Wey, member (VG often wood Stepl and letty, menter swe Raach Cottonwild ary on õ 51617 a ment Cin (atton wood 61 Footh 8000 FOOTMING RD 8000 COTTONWOOD CNYN, RD COTTONWOOD CONYON MEN 8000 FOOTNICL

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely, CVCA MEMBER J YE 51 e ve 0 ESTHER LOUISE DRAUCKER Board of Directors: LUXAMA COMMUNITY Mathedist Ch. CUCF Member, CVFRC, Curana Christian Academy ILA BALZUK CYCA NEMBER KESIDE AL CCSD mounts hool District Cuyan ibrar can USER

5

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely,

lerri AllyNCox tacher at anga ลิอนส STWESS OWNER rex Con 20 citizen own concerne MOORE QUIA GENERATION MOMESDEADER .

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely, WOR നക 62 the wood new Cayama 40 no ma Catton wood

5

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment,

Sincerely, Preserve Native Am. Culture, Kentu Sinc 251 Chairman Inc. Founday sen 89 ីត 20 Nafive Am, Cultur. tion =ne チッ

5

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely, 4h noan

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

	Sincerely,
i	Band Da Dian
27	GABE JOHN R CABE
2)6.	Myra MCale MYRA M. CABE
	LANDOWNER COTTONWOOD CAUYON
	WESTERN CULYAMA UALEY
~	
-	
1.000 V.000	
100	
indeg og	
3044 d au	
 .	

5

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely. Braten K 35070 Hur 35 Maricos (4 93252

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely,

Famela E. Domm	April 25, 2016
·····	

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely,

alude X Yoph Alisha Taff Rock Front Rach -----.

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Ĩ

Sincerely,

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Glenn A Famil -10L Valley

Sincerely,

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely.

Janine Y. Arier Cottonwood Canyon area, Western Cuyama Valley

5

Therefore, we recommend that this basin boundary change request be rejected until further information on groundwater flows and availability in the western portion of the basin are determined.

Thank you for allowing us the opportunity to comment.

Sincerely,

P.3. H. - AMIP B. HENRY ILL ARIEY BLOO RANCH, COTTONWOOD CANYON, WESTERN CUYAMA VALLEY We sympathize with the interests of the proponents to limit their basin boundaries to better manage their resonances. But changing basin boundaries is a seniors matter that must be basised on sufficient science. There is currently not sufficient scientific evidence to separate the Valley into a main basin and sub-basis at the Rossell Fault. In addition, the recent change is agreentural practices on the western part of the Guyania Valley and cramatic increase in agreentural well dilling calls for keeping the western region designated as maximum priority. And the proponents do have an option. The Sustainable Coundwater Management Act allows day Damber of Groundwater Sustainable's and that a single point of center that a basin, provided they do not have everlapping boundaries and that a single point of center to coordinating and submitting plans is identified. We recommend that the Counts retain the basin Given the current state of trademater 118 in order to maintain the integraty of the Countary as currently drawn is Bulleting of the basin in its entirely, we believe this to be the basis option.

Therefore, we recommend that this basin boundary change request be rejected antil further information on groundwater flows and availability in the western position of the havin are determined.

Sincerch 1-Ct 282 7 ----Dianas-11 11 11 11 0,810

Thank you for allowing its the opportunity to comment.

. . .

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA · SANTA CRUZ

ENVIRONMENTAL STUDIES DEPARTMENT

SANTA CRUZ, CALIFORNIA 95064

September 6, 2018

Mr. Daniel Blough Chair, Santa Barbara County Planning Commission 123 East Anapamu Street Santa Barbara CA 93101

Dear Mr. Blough and Honorable Santa Barbara County Planning Commissioners (SBCPC):

I respectfully submit this letter in regards to the natural resource surveys provided as part of the proposed "North Fork Ranch Frost Ponds" Case No. 16CUP-00000-00005, by the Applicant Brodiaea, Inc. My qualifications to provide technical, expert opinion on this aspect of the project include almost 50 years of experience in botany and ecology, B.A., M.A, and PhD degrees in Botany and Ecology from the University of California at Santa Barbara, 32 years teaching an annual 10-week spring field course in botany and natural history through my position as a Professor of Natural History and Agroecology at the University of California at Santa Cruz, 25 years as a part-time resident in the Cottonwood Canyon area of the Cuyama Basin, and leader of multiple spring wildflower events in Cottonwood Canyon for Condor's Hope Ranch.

In my judgement, the biological surveys carried out by Kevin Merk Associates (KMA) are insufficient to ensure that there will be no negative project impacts on plants and animals, especially several endangered or threatened species of plants, since they were conducted in the fourth and fifth years of consecutive drought. Further study is required. KMA completed their first survey in 2015. The Santa Barbara County Planning Department staff asked DUDEK to peer review the survey. DUDEK found the study inadequate and suggested they do a survey comparing it to species in the neighboring Carrizo Plain. This was done in KMA's 2016 study. The impact on the drought on native plant and animal populations in the Carrizzo Plan and northern Cuyama Basin was recently reported in two separate studies which I describe below.

In a communication just published on 20 August 2018¹, the impact of drought in the Carrizo Plain and northern Cuyama Basin was documented. As part of a long-term biological survey that began in 2007 and continued through 2014, researchers observed a very dramatic reduction in observed populations of all plant and animal species three years into what ended up being a 5-year drought that lasted through 2016. There is a very graphic representation of the drought's impact in the photo of Attachment #1 that

was taken from this study. I note that the biological surveys carried out by Kevin Merk Associates as part of the North Fork Frost Pond application were done in 2015 and 2016, the 4th and 5th years of the same drought referred to in this publication. This brings into question the validity of the surveys carried out by Kevin Merk Associates, since conditions of extreme drought would have severely reduced the presence of most species, especially annual plants.

In another report from the California Native Plant Society², results of long-term monitoring sites provide important information on the many and diverse plant taxa and vegetation types in the Carrizo National Monument, including multiple sites along the southern border of the monument that extends over the Caliente Mountains down to the Cuyama River. See map of their study sites in Attachment #2. Their surveys encountered 417 taxa of plants, indicating the rich diversity that occurs in the region. The surveys completed by Kevin Merk Associates only found a small percentage of the taxa on this list, due most likely to the fact their observations took place in drought years when populations of native plants were reduced and the physical manifestation of plants was depressed. Hence the surveys by Kevin Merk Associates most likely missed a large number of important plants including unique, rare, and threatened plant species that would probably be present in normal to wet rainfall years, and could be significantly impacted by the Frost Ponds project, both directly and indirectly. In particular, species known to occur in the Project vicinity include the attached list³ of 25 species based on extensive studies of threatened plants in the BLM lands of the Carrizo Monument. Cross checking this list with the Flora of Santa Barbara County published by the Santa Barbara Botanic Garden, at least 4 of these species are highly likely to occur in the project area since they have been collected in the past from the Cottonwood and Schoolhouse Canyon areas. Another 13 have been reported from nearby Cuyama Valley areas. The 8 species not likely to occur in the project area are only those that grow best on alkali soils typical of the dry lake areas of the Carrizo.

Based on my reading of the surveys from Kevin Merk Associates, the two reports described above, and my own experience with native plant species in the Cuyama and Carrizzo areas, these surveys are insufficient to support a claim that there will no adverse impacts upon botanical and wildlife populations caused by the Frost Pond Project. Additionally, in my opinion, and based on my review of the Project plans and MND, the potential presence of the above plants in and around the Project site creates a reasonable possibility that the Project may result in significant impacts according to the County's thresholds for impacts to flora through loss or disturbance of unique, rare and threatened plant communities, and a reduction in the numbers of unique, rare or threatened species of plants (MND p. 11.).

Sincerely yours,

Dr. Stephen R. Gliessman

Professor Emeritus of Natural History and Agroecology Department of Environmental Studies University of California at Santa Cruz gliess@ucsc.edu

¹ Prugh, L.R., N. Deguines, J.B. Grinath, K.N. Suding, W.T. Bean, R. Stafford, and J. S. Brashares. 2018. Ecological winners and losers of extreme drought in California. *Nature Climate Change*. Volume 8: 819-824.

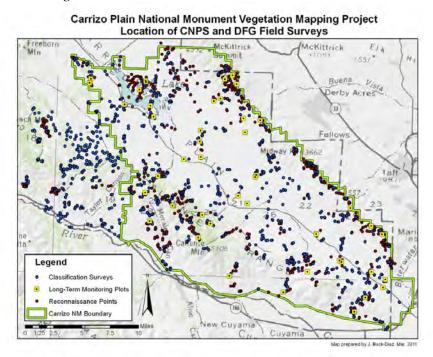


Figure 1. Project study area depicting surveys used for the floristic vegetation classification as well as locations of long-term monitoring plots and reconnaissance points to inform vegetation mapping.

² Buck-Diaz, Jennifer, and Julie Evens. 2011. Carrizo Plain National Monument Vegetation Classification and Mapping Project. California Native Plant Society. Sacramento, CA. 16 pages.



'Center Well 2' site (Mar. 30th, 2011)

Center Well 2' site (Mar. 27th, 2014)

The same study site in late March 2011, before the drought began, and in late March 2014, three years into the drought. Researchers were able to study the response of this unique ecosystem to an exceptional climate event. *J. Chesnut*

³Potentially threatened plant species in the Project Area (see below): Source: BLM Carrizo Plant List, accessed at <u>www.inaturalist.org/check_lists/</u> ***

Hoover's Eriastrum (Eriastrum hooveri)* Tehachapi Woollystar (Eriastrum pluriflorum)** Grass Blazingstar (Mentzelia gracilenta)* Cottony Buckwheat (Eriogonum gossypinum)* Temblor Buckwheat (*Eriogonum temblorense*) Twisselmann's Buckwheat (Eriogonum twisselmannii) Ferris' Goldfields (Lasthenia ferrisiae)* San Joaquin Woollythreads (Monolopia congdonii) Pale Yellow Lavia (Lavia heterotricha)** Munz's Tidytips (Lavia munzii)* Big Tarplant (Blepharizonia plumosa)* Twisselmann's Nemacladus (Nemacladus twisselmannii) Round-leaved Filaree (California 'Erodium' macrophylla)* Temblor Range Clarkia (*Clarkia tembloriensis*) Northern California Black Walnut (Juglans hindsii) San Joaquin Bluecurls (Trichostema ovatum)* Oval-leaved Snapdragon (Antirrhinum ovatum)** Byron Larkspur (*Delphinium recurvatum*) Spiny-sepaled Button-Celery (*Eryngium spinosepalum*) Alkali Heliotrope (Heliotropium curassavicum)* Douglas Fiddleneck (Amsinkia douglasiana)* California Jewelflower (Caulanthus californicus)* Nodding Needle Grass (Nassela cernua)** Crinkled Onion (Allium crispum)* Stinkbells (Fritillaria agrestis)*

*Species that have been found in habitats of Santa Barbara County similar to those where the reservoirs are proposed, according to Smith, Clifton F. 1998. *A Flora of the Santa Barbara Region, California.* Santa Barbara Botanic Garden and Capra Press, Santa Barbara, CA.

**Species that have been found in the Cottonwood Subarea as noted in Smith (1998).

*** From a total of 25 species classified in the BLM list as threatened, only 8 are not listed for the Cuyama Valley in Smith (1998).

September 10, 2018

To: Chair Blough and Commissioners Santa Barbara County Planning Commissioners

On behalf of the landowners and residents of Cottonwood Canyon which is adjacent to the North Fork Vineyard property, please find the following petition in support of the appeal before you related to the permit for three reservoirs on the vineyard property. This petition is signed by over 80% of the full and part-time resident landowners of Cottonwood Canyon which is located in the 5th Supervisorial District. Thank you for your consideration.

April 2, 2018

To: Chairman DanielBlough and Commissioners From: Cottonwood Canyon Residents and Landowners Re: North Fork Ranch Frost Ponds

The undersigned are residents and/or landowners in Cottonwood Canyon, west of the North Fork Ranch Vineyard in the Cuyama Valley. Water is a precious resource to all of us. The Cuyamagroundwater basin is in a state of critical overdraft, with annual extractions much greater than replenishment. Groundwater is the only water supply for Cuyama Valley.

Between November 2014 to August 2015, we witnessed the installation of 11 new agricultural wells in the Cottonwood subbasin and the conversion of 850 acres non-irrigated rangeland to vineyards. Brodiaea, Inc. is now requesting County approval to construct three 49 acre-foot reservoirs that they claim will be used for frost protection.

Brodiaea claims that the Cottonwood subbasin is separate from the Cuyamagroundwater basin, and is not in a state of overdraft. The California Department of Water Resources rejected the foundation of Brodiaea's claim based on scientific evidence and literature. We are gravely concerned that Brodiaea's pumping will worsen the overdraft of the Cuyamagroundwater basin.

Our community is developing a Cuyama Groundwater Sustainability Plan (GSP) under the Sustainable Groundwater Management Act (SGMA), which must be submitted to the Department of Water Resources (DWR) by January 2020.Until the GSP is completed and approved, we should not approve projects that increase Cuyama'soverdraft.

As residents and landowners of Cottonwood Canyon, we are concerned that the project, including both the proposed reservoirs and the vineyard, will adversely impact groundwater supplies especially the wells in our Canyon. We request that an Environmental Impact Report(EIR) be prepared to analyze the project's impacts to the Cuyamagroundwater basin and whether it will prejudice the Groundwater Sustainability Plan process and compromise water supply sustainability in the Cuyama Valley.

For all these reasons, the undersigned request that the Planning Commission find that the project may have a significant impact on groundwater resources and direct preparation of an EIR.

Residents and/or Landowners in Cottonwood Canyon

COTTONWOOD CYN ADDRESS SIGNATURE PRINT NAME Condor's Hope Ranch oberta_

As residents and landowners of Cottonwood Canyon, we are concerned that the project, including both the proposed reservoirs and the vineyard, will adversely impact groundwater supplies. We request that an EIR be prepared analyze the project's impacts to the Cuyamagroundwater basin and whether it will prejudice the Groundwater Sustainability Plan process and compromise water supply sustainability in the Cuyama Valley. For all these reasons, the undersigned request that the Planning Commission find that the project may have a significant impact on groundwater resources and direct preparation of an EIR. Residents and/or Landowners in Cottonwood Canyon SIGNATURE PRINT NAME COTTONWOOD CYN ADDRESS CARE FYOR 3750 Cottonecon ingon Ra (DI ENCH() CKAPAR2A tooth tonwood Henu uga ma VDIEC 4011 07 8000 BROWN (us AmA FOOT EW aw 8000 TOOT lyama SUDO FOODY low 12340 Footh, 11 Rd Store GLESSAGN New

Villalobos, David

From:	Louise Draucker <ldraucker@gmail.com></ldraucker@gmail.com>
Sent:	Saturday, September 08, 2018 3:31 PM
To:	Villalobos, David
Subject:	frost pond project in Cuyama Valley
Categories:	Purple Category

My husband and I have lived in Cuyama Valley for almost 45 years and have watched the take-over of this beautiful valley and its groundwater for many years now. There has been a marked decrease in wildlife since the advent of unlimited watering for commercial farming. It seems the only mammals left are gophers, ground squirrels, and coyotes. I have identified and counted backyard birds for many years for Project Feederwatch, run by Cornell University. I have less than half the numbers I had 20 years ago. The same goes for insects. Pollinators are few and far between. Instead, there seems to be a race to be the first to drain the basin among the commercial agriculture companies.

The state of California has designated Cuyama Valley as a high-priority, critically overdrafted basin. Farmers and a few residents have been charged with coming up with a plan for sustainability under SIGMA regulations. But is that realistic? Can the pace of groundwater extraction be slowed enough to ensure adequate water for farmers <u>and</u> residents?

It doesn't make sense to overhead-water lettuce and other salad greens (cool-weather crops) to keep them cool in the summer as big ag is doing now, but now Brodeia wants to overhead water in the winter to keep the grapes from freezing. There are other solutions for both problems, but the goal does not appear to be sustainability.

The rapid depletion and degradation of our groundwater poses major consequences for residents of Cuyama Valley. What will happen to residents when it is no longer economical or practical to continue farming? Residents also rely on groundwater. Cuyama Valley has three disadvantaged communities; it will be very expensive, if not impossible, for many people to move, and it is very expensive to increase the depth of wells. Our homes and property will have little or no value without adequate water.

A complete Environmental Impact Report is absolutely essential in this case. Surely Santa Barbara County will be as environmentally conscientious in its northern sector as it is in its southern portions. The request for frost-pond wells, and procedures for future agricultural wells, need to be reviewed for current appropriateness. Our world is changing too fast to be careless what we allow.

Louise Draucker ldraucker@gmail.com

LAW OFFICE OF MARC CHYTILO, APC

Environmental Law

September 7, 2018

Santa Barbara County Planning Commission Santa Barbara County 123 E. Anapamu Street Santa Barbara, CA 93101 By email to dvillalo@co.santa-barbara.ca.us

RE: North Fork Ranch Frost Ponds Appeal; Legal Question Regarding MND Scope

Dear Chair Blough and Honorable Planning Commissioners,

This office represents Roberta Jaffe and Stephen Gliessman, Appellants in this matter. Ms. Jaffe and Mr. Gliessman are Cuyama Valley residents and farmers of a 5-acre dry-farming operation called Condor's Hope Ranch. Appellants have already submitted several letters into the record including a report from professional hydrologist Dennis Gibbs to support our appeal, and this office will submit an additional letter responding in full to the Staff Report before Monday's noon submittal deadline. This letter addresses one specific legal issue that is central to the adequacy of the Mitigated Negative Declaration (MND) prepared for the North Fork Frost Ponds Project ("Project"), that we want to ensure the Applicant and County Counsel have the opportunity to fully review and respond to.

The Cuyama Valley relies on groundwater as its exclusive source of water. Agriculture and human habitation would not be possible in the Cuyama Valley without adequate groundwater. The Cuyama Groundwater Basin is in a state of Critical Overdraft, with groundwater extraction proceeding at twice the rate of groundwater recharge. The County's Environmental Thresholds, as described in the MND, provide:

A project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use [total consumptive demand adjusted for recharge less discontinued historic use] exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant. The water demand threshold for the Cuyama Valley Groundwater Basin is 31 AFY. The adopted threshold applies only to projects subject to discretionary review by the County, and do not apply to uses, such as agricultural operations, that do not require approval of a discretionary permit.

(MND, p. 35.)

Chair Blough and Planning Commission September 7, 2017 Page 2

A key issue in this appeal is whether it was proper for the MND to constrain its analysis of the Project's groundwater impacts to consider only the water lost from the surface of the frost ponds through evaporation, rather than the water used to fill the frost ponds and protect the grapes from frost. This issue is central to the question of whether the Project's impacts to groundwater are significant. When only this surface evaporation is considered, the MND ascertains that the Project will utilize 26.28 AFY, which is less than the 31 AFY of groundwater required to trigger a significant impact pursuant to the County's CEQA thresholds. (MND pp. 38-39.) However, at least 147-AFY, and likely much more than that, will be actually used for operation of the Frost Ponds, which unquestionably exceeds the County's CEQA threshold. A CEQA document must evaluate the *whole of a development proposal* with the potential to impact the environment, not merely the governmental approval. (CEQA Guidelines §§ 15378 (a, c and d).) Discussed below, there is simply no legal basis for excluding the Project's consumptive water use from the environmental analysis simply because the water will be used for agricultural purposes.

The Staff Report states on page 8 (emphasis added):

Since the proposed water storage reservoirs require the approval of a discretionary permit (a Minor Conditional Use Permit), their construction and operation is subject to CEQA review. *However, water that would be stored in the reservoirs and applied directly to the vineyards for frost protection would support an allowed agricultural use, similar to the application of irrigation water, and that water is not a discretionary action that is subject to CEQA review.*

The first sentence above accurately characterizes the construction and operation of the frost ponds as a discretionary project requiring CEQA review. The second sentence essentially provides that where a project like this includes both discretionary and ministerial elements, only the discretionary elements are subject to CEQA review. This proposition is plainly contrary to CEQA.

CEQA identifies a three-step process:

First, the Lead Agency, during its "preliminary review" of a project, determines whether an agency is contemplating "approval" of a "project," and whether the project is subject to CEQA or is exempt.

Second, if the project is not exempt, the Lead Agency prepares an Initial Study to determine whether the project may have a significant effect on the environment, and then prepares a Negative Declaration if there is no substantial evidence of significant effect.

Third, if the Initial Study shows that the project may have a significant effect on the environment, the Lead Agency prepares an Environmental Impact Report (EIR).

(California Environmental Law & Land Use Practice § 21.02 (2018).) Determining whether a project is "discretionary" or "ministerial" involves the first step. "Where a project involves an approval that contains elements of both a ministerial action and a discretionary action, the

Chair Blough and Planning Commission September 7, 2017 Page 3

project will be deemed to be discretionary and will be subject to the requirements of CEQA." (CEQA Guidelines § 15268 (d) (emphasis added).)

The "Project" that proceeds to step 2 is "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (CEQA Guidelines § 15378 (a)). "Project" refers to the underlying development proposal, not the governmental approval. (Id., subd. (c) and (d "the lead agency shall describe the project as the development proposal for the purpose of environmental analysis") (emphasis added.)) Accordingly, pursuant to CEQA Guidelines sections 15268 (d) and 15378, the "Project" analyzed in the environmental review document cannot be limited to only the discretionary elements of the proposal. Moreover, whether a particular activity constitutes a CEQA "project" is a question of law; courts do not defer to Lead Agency determinations of whether an activity is a project. (California Environmental Law & Land Use Practice § 21.02 (2018); California Environmental Law & Land Use Practice § 21.02 (2018); *School Dist. v. State Bd. of Education* (1982) 32 Cal.3d 779, 795.)

We have found no case upholding a decision to *exclude* an element of a Project from the environmental analysis of an otherwise discretionary project because that element would not individually require governmental approval. The Applicant has identified several cases, discussed in turn below, that they believe are helpful in supporting their case. However, none of these cases involve projects being approved with discretionary permits, like the Frost Ponds Project.

Friends of Westwood v. City of Los Angeles (1987) 191 Cal.App.3d 259, 266-267, explains why CEQA applies to discretionary projects, but does not in any way support an assertion that the scope of the "Project" considered in the Frost Pond MND can exclude consideration of Project water use:

As applied to private projects, the purpose of CEQA is to minimize the adverse effects of new construction on the environment. To serve this goal the act requires assessment of environmental consequences where government has the power through its regulatory powers to eliminate or mitigate one or more adverse environmental consequences a study could reveal. Thus the touchstone is whether the approval process involved allows the government to shape the project in any way which could respond to any of the concerns which might be identified in an environmental impact report. And when is government foreclosed from influencing the shape of the project? Only when a private party can *legally compel* approval without any changes in the design of its project which might alleviate adverse environmental consequences.

Clearly here, the Applicant cannot legally compel approval of the Frost Ponds Project. The Planning Commission is well within its discretion to apply mitigation measures or alternatives that reduce the water used by the Project, and accordingly reduce the potentially significant impact to groundwater resources. Such measures and alternatives potentially include more efficient Chair Blough and Planning Commission September 7, 2017 Page 4

sprinklers, the use of wind machines, and delayed pruning, among other things. (*See e.g. https://www.kj.com/blog/frost-protection-vineyards.*)

Leach v. City of San Diego (1990) 220 Cal.App.3d 389 determined that a decision to draft water from one reservoir to another was ministerial and not subject to CEQA review. Importantly however, the action at issue in *Leach* did not involve the construction or operation of the reservoirs. There was no discretionary action linked to the drafting. Here by contrast, the action proposed for approval is the *construction and operation* of three frost ponds. The approval indisputably requires a discretionary Conditional Use Permit.

San Diego Navy Broadway Complex Coalition v. City of San Diego (2016) 185 Cal.App.4th 924 concerned the question of whether a subsequent action concerning a project, after that project had been approved with an EIR, triggered CEQA's subsequent environmental review requirements. The court determined no subsequent environmental review was required in part because the discretion available to the agency was strictly limited to aesthetics, and the environmental impacts at issue in the petition concerned global climate change only. The court declined to determine whether CEQA could be applied to address aesthetic issues, because the petition did not request subsequent environmental review concerning aesthetics. (*Id.* at 939.) In the Frost Pond context however, the environmental impact at issue concerns groundwater use, and the Project itself over which the Planning Commission has plenary discretion will impound and consume groundwater. Accordingly, *San Diego Navy* is readily distinguishable both in its procedural posture and on its facts, and it fails to lend any support to the proposition that the Frost Ponds MND may exclude consumptive water use from consideration in the impact analysis.

Sierra Club v. Napa County Board of Supervisors (2012) 205 Cal.App.4th 162, 180 again clarifies that the approval process involved must allow the government to shape the project in a way which responds to the concerns that could be identified in an EIR. Again however, because the Frost Ponds Project clearly requires the approval of a discretionary CUP, the Planning Commission has the discretion to condition the Project in a way that would reduce water use, or indeed could deny the Project outright.

The quantity of water the Applicant could theoretically use through alternative means that would not involve a discretionary permit is not relevant to the determination of whether the environmental analysis for *this Project*, approved under a discretionary CUP, may *exclude* the water used during operation of the Project in its environmental analysis. A long line of cases hold that an initial study or negative declaration "must focus on impacts to the existing environment, not hypothetical situations". (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 321, 323.) In Communities for a Better Environment, the California Supreme Court reasoned as follows:

the Negative Declaration reasons that the increased steam production the Diesel Project called for was within the boiler permits' maximum operational levels and "could, therefore,

occur even if the proposed project did not commence (exist)." By comparing the proposed project to what *could* happen, rather than to what was actually happening, the District set the baseline not according to "established levels of a particular use," but by "merely hypothetical conditions allowable" under the permits. (*San Joaquin Raptor Rescue Center v. County of Merced, supra,* 149 Cal.App.4th at p. 658.) Like an EIR, an initial study or negative declaration "must focus on impacts to the existing environment, not hypothetical situations." (*County of Amador v. El Dorado County Water Agency, supra,* 76 Cal.App.4th at p. 955.)

An approach using hypothetical allowable conditions as the baseline results in "illusory" comparisons that "can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts," a result at direct odds with CEQA's intent. (*Environmental Planning & Information Council v. County of El Dorado, supra*, 131 Cal.App.3d at p. 358.) The District's use of the prior permits' maximum operating levels as a baseline appears to have had that effect here, providing an illusory basis for a finding of no significant adverse effect despite an acknowledged increase in NOx emissions exceeding the District's published significance threshold.

(Id. at 323.) Pursuant to this authority, the impacts of the Frost Ponds Project must be measured against the existing conditions on the ground, not against a hypothetical scenario such as the Applicant increasing water use to the same degree via other non-discretionary means.

To conclude, CEQA plainly requires that once a Project is determined to be subject to CEQA, the CEQA document must evaluate the *whole of the development proposal*. (CEQA Guidelines § 15378 (a).) The Project analyzed is not limited to the specific portion of the Project over which the County has approval jurisdiction. (Id. subd. (c and d). Here, the development proposal is the construction and operation of three frost ponds that would store water to be used for frost protection. Operation of the frost ponds includes the sustained spray irrigation of approximately 1,000 acres of existing vineyards for frost protection purposes. There is simply no legal basis for excluding this water use from the environmental analysis.

Respectfully submitted,

LAW OFFICE OF MARC CHYTILO, APC

Ana Citrin Marc Chytilo For Appellants Jaffe and Gliessman

CC: County Counsel Steve Rodriguez, Planner



August 29, 2018

Paul Van Leer, Chairman Santa Barbara County Agricultural Advisory Committee

AGENI	DA ITEMS
1TEM #:	3
MEETING DATE:	9/12/18

Chairman Van Leer:

The Santa Barbara County Farm Bureau, a nonprofit California corporation representing approximately 1,400 agricultural and associate members in Santa Barbara County, support the construction and use of 3 agricultural reservoirs on the North Fork Vineyard, located near the western end of the Cuyama Valley.

The applicant, Brodiaea Inc, received a Zoning Administrator hearing after a 20month permit and environmental review process. The Zoning Administrator found the construction of the three reservoirs met all County standards. The Zoning Administrator approved the CEQA Mitigated Negative declaration, including a determination the construction of the reservoirs fell beneath the threshold of significance for water use. The Zoning Administrator concurred with County Staff's determination that agricultural water use and the associated development of wells, as exempt activities and are not considered a "project" under CEQA.

Reservoirs are and historically have been an integral part of irrigated agriculture here in Santa Barbara County as well as the State. They help maximize the farmers' ability to manage the water they legally have access to, while allowing them to be more flexible and efficient in their water use.

The applicant has met all of Santa Barbara Counties permitting requirements for constructing these reservoirs.

Sincerely,

Russell Doty, President Santa Barbara County Farm Bureau

RECEIVED

SEP 04 2018

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT



CALIFORNIA FARM BUREAU FEDERATION

OFFICE OF THE GENERAL COUNSEL

2300 River Plaza Drive. Sacramento, CA 95833-3293 · Phone (916) 561-5665 · Fax (916) 561-5691

	Itrupe@co.santa-barbara.ca.us				
September 4, 2018	AGENDA ITEMS				
	ITEM #:3				
Committee	MEETING DATE: 9/12/18				

Paul Van Leer, Chairman Santa Barbara County Agricultural Advisory Committee Santa Barbara County Agricultural Commissioner's Office 263 Camino del Remedio Santa Barbara, CA 93110-1335

Re: North Fork Ranch Frost Ponds Project Appeal

Dear Chair Van Leer,

Enclosed is the California Farm Bureau Federation's letter to the Santa Barbara County Planning Commission regarding the North Fork Ranch Frost Ponds Project Appeal. For the reasons described therein, we encourage the Santa Barbara Agricultural Advisory Committee to discourage the Planning Commission from accepting the appeal.

Farm Bureau believes that groundwater management is appropriately addressed locally through the process set forth in the Sustainable Groundwater Management Act (SGMA), not through permitting of water management infrastructure on the farm. The appeal attempts to use the permitting process to accomplish what should be addressed through SGMA.

Thank you for considering the attached letter as you discuss this critical issue. Please contact me at <u>irice@cfbf.com</u> or (916) 561-5667 with any questions.

Very truly yours,

- 1h

JACK L. RICE Senior Counsel

RECEIVED

SEP 0 4 2018

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT

Attachment

cc: Santa Barbara County Farm Bureau



CALIFORNIA FARM BUREAU FEDERATION

OFFICE OF THE GENERAL COUNSEL

2300 River Plaza Drive, Sacramento, CA 95833-3293 · Phone (916) 561-5665 · Fax (916) 561-5691

September 4, 2018

via email: dvillalo@co.santa-barbara.ca.us

Daniel Blough Chair, 5th District C/O Planning and Development, Hearing Support 123 East Anapamu Street Santa Barbara, Ca. 93101

Re: North Fork Ranch Frost Ponds Project Appeal

Dear Chair Blough,

Please accept these comments from the California Farm Bureau Federation (Farm Bureau) regarding the North Fork Ranch Frost Ponds Project Appeal (Appeal). Although concerns about groundwater management are common and understandable, these issues should be worked out through local implementation of the Sustainable Groundwater Management Act (SGMA), not through permitting of on-farm water management infrastructure. Farm Bureau encourages the Planning Commission to reject the Appeal and allow SGMA's thoughtful and deliberate process to address groundwater management in the Cuyama Valley.

Farm Bureau is a non-governmental, non-profit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home and the rural community. Farm Bureau is California's largest farm organization, comprised of 53 county Farm Bureaus currently representing approximately 40,000 agricultural, associate and collegiate members in 56 counties. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Local communities throughout California are working hard to achieve the important goal of sustainable groundwater management in compliance with SGMA. For basins like the Cuyama Valley, identified by the Department of Water Resources as being subject to critical conditions of overdraft, this can be especially challenging. But it is precisely because sustainable groundwater management is such an important goal, and because the issues are so challenging, that SGMA established a thorough process with clear standards and timelines. This process is essential to ensuring local communities develop a workable Groundwater Sustainability Plan that can be successfully implemented. Letter to Daniel Blough Re: North Fork Ranch Frost Ponds Project Appeal September 4, 2018 Page 2

The Appeal would impair this process by attempting to achieve the purposes of SGMA through the process of permitting of water management infrastructure on the farm. We encourage the Planning Commission to reject this approach. Basin-wide groundwater management and on-farm water management are different. Basin-wide groundwater water management is about bringing a basin's groundwater budget into balance, ultimately informing individual pumpers of how much water is available for extraction. On-farm water management, in contrast, is how farmers manage whatever water is legally available to them. Where SGMA will inform groundwater users how much water they may pump, on-farm water management is how farmers manage whatever water they will have.

In the Cuyama Valley basin, the groundwater management process is moving quickly. SGMA requires the Cuyama Valley basin to have a Groundwater Sustainability Plan adopted by January 31, 2020, a mere 17 months from now. It is this plan that will describe the groundwater budget and identify the groundwater available for use in the North Fork Ranch frost ponds. Whatever this amount turns out to be, the frost ponds will be important water management infrastructure necessary to use the available water effectively and efficiently. The permitting process for on-farm water infrastructure should not be used to attempt to preempt SGMA. Groundwater management should be left to the SGMA process, and construction of water infrastructure on the farm should follow normal procedures.

Because allowing the permitting process for water management infrastructure on the farm to subvert SGMA would be a troubling precedent, Farm Bureau encourages the Planning Commission to reject the Appeal.

Thank you for considering these comments. Please contact me at <u>jrice@cfbf.com</u> or (916) 561-5667 with any questions.

Senior Counsel

cc: Santa Barbara County Agricultural Advisory Committee Santa Barbara County Farm Bureau

Villalobos, David

From: Sent: To: Subject:

Categories:

John Mackenzie <j7a9mac10@gmail.com> Monday, September 03, 2018 7:54 PM Villalobos, David Harvard Endowment, et al reservoirs

Purple Category

RECEIVED

SEP 03 2018

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT

S B Planning Staff,

I have lived in the Cuyama Valley for 16 years. I have served as Vice Chairman of CCSD for 12 years. I have written previously to County Planning in opposition to the so called frost ponds proposed by the latest water mining scheme in this fragile valley.

I have frequently appeared before County Supervisors to to express varying degrees of outrage at the mismanagement of this remote corner of Santa Barbara by those whose role it is to protect its resources and ecological integrity now and for the future.

I hoped at one time that County Planning would rezone to allow a kind of development encouraging local growth instead of endorsing industrial scale environmental destruction by out-of-county and out-of-state entities. Instead 661 imposes a one-size-fits-all regime that favors historically destructive patterns that allow for the acceleration of the extraction of the sole source of water at mega-scale levels.

The proposed reservoirs have a purpose other than stated by applicant. The engineering is based on unverified assumptions and outdated technology. The evaporation calculations are specious. The geological/hydrological assertions are wishful thinking. This is an investment, pure and simple, designed to appeal to a new investor who cares no more for this valley than the current applicant.

I urge County Planning to recognize the facts and the real science that is in opposition to this scheme and honor your responsibility to at minimum, require the EIR that the applicants have so desperately hoped to avoid. You would be starting a new trend toward responsible management of North East Santa Barbara County.

Sincerely, John A. Mackenzie

AGEN	DA ITEMS
ITEM #:	3
MEETING DATE:	9/12/18

YULALONA HYDROLOGY

PO Box 63 Bonanza, OR 97623 805-451-4179 dennisgibbs@yahoo.com

September 5, 2018

Mr. Daniel Blough Chair, Santa Barbara County Planning Commission 123 East Anapamu Street Santa Barbara CA 93101

RECEIVED	R	E	C	E	IV	'E	D
----------	---	---	---	---	----	----	---

SEP 05 2018

S.B. COUNTY PLANNING & DEVELOPMENT HEARING SUPPORT

AGENI	DA ITEMS
ITEM #:	3
MEETING DATE:	9/12/15

Dear Mr. Blough and Honorable Santa Barbara County Planning Commission Staff (SBCPC)

I have been retained on behalf of Mr. Steve Gliessman and Ms. Roberta Jaffe of *Condor's Hope Ranch* (CHR), located in the Cottonwood Canyon Subarea of the Cuyama Valley and Cuyama Groundwater Basin (CGB) to provide an unbiased review of the documents and analyses provided as part of the proposed "North Fork Ranch Frost Ponds" Case No. 16CUP-00000-00005, by the Applicant Brodiaea, Inc. My qualifications to comment on this matter and project include 30 years of experience in all aspects of hydrology and hydrogeology, 20 years of experience monitoring and reporting on water conditions in the Cuyama Valley, eight years of experience serving as the "project manager" for the US Geological Survey – Santa Barbara County Water Agency Water Availability Study (2014) and a professional license in the field of Hydrology.

I would like to concisely bring to your attention **five** deficiencies as the above referenced project is evaluated, and which implicate potentially significant impacts under CEQA. This "summary assessment" could be developed further with the investment of additional resources, however that would be the function of a more robust environmental review process.

1. The applicant claims abundant groundwater resources are available in the project area but no peer reviewed published literature exits to support such claims. CHR requested the analysis of "groundwater availability" used by the applicant to support such claim but the request for transparent information was denied.

2. The project area lies within the boundaries of the Cuyama Groundwater Basin (CGB) as defined by the California Department of Water Resources (CDWR) Bulletin 118 which has been defined to be in a critical state of "overdraft" or "usage greater than replenishment". The applicant states that the project area is separated from the Cuyama Groundwater Basin and residential and small scale farmstead water wells but again there is no scientific peer reviewed work to support this claim.

3. The applicant states that "imbalance" of the Basin is not relevant since the *County of Santa Barbara Environmental Thresholds and Guideline Manual* (1992) state a "threshold of significance of 31 acre-feet per year" for a project in the CGB to require further environmental review. These "thresholds" are severely out of date (25 years old).

4. The applicant has grossly underestimated water demand for the project.

5. The applicant has overemphasized needed usage of water for "frost protection".

I will expand on each of the aforementioned points in detail:

1. No proof of long term Water Availability

Previous investigations by Federal, State and Local Agencies indicate the overall Cuyama Groundwater Basin "imbalance" from a low of 14,600 Acre Feet per Year to a high of 38,000 Acre Feet per Year, with a mean or average of 28,100 Acre Feet per Year and a **median value of 30,300 Acre Feet per Year**. According to the US Geological Survey (USGS) the overall Hydrologic Budget of the CGB is in a serious condition of "overdraft" or "imbalance" or "usage greater than replenishment", and has been for many decades (Hanson, 2014, 2015 and others).

The Cuyama Groundwater Basin has been declared to be in a state of "critical overdraft" by the CDWR. This includes the Cottonwood Canyon Subarea as defined in CDWR Bulletin 118 (2003), where the Project would extract its water. As such, this Basin is one of 21 Basins in California that are designated "High Priority" and must submit a Groundwater Sustainability Plan under the Sustainable Groundwater Management Act (SGMA) to the CDWR by January 2020. Until water augmentation and recharge projects are planned, funded and undertaken to increase percolation to "offset further degradation" and examine "sustainability" as contemplated by SGMA, no projects which increase extraction of groundwater should be approved. Approving a project that will cause a significant increase in groundwater extractions before the SGMA Groundwater Sustainability Plan is adopted and implemented in less than 18 months could substantially prejudice the Groundwater Sustainability Plan and increase the burdens of achieving sustainability of this resource as required by SGMA.

The Project Applicant has made the claim of abundant groundwater resources available in the area but has denied requests to review their analyses to prove such. They claim this Cottonwood subarea is named the *Ruby Star Groundwater Basin* but this "Basin" is not cited in any US Geological Survey (USGS), California Department of Water Resources (CDWR), US Department of Agriculture (USDA), Santa Barbara County (SBC) or any other peer reviewed and published literature. The Applicant has also made the argument that geological fault barriers separate the project water production area from residential wells in Cottonwood Canyon, and has an "available storage" of 54,000 Acre-Feet of groundwater, but there are no published studies which have been adequately peer reviewed to support this claim and **requests by CHR to review the analysis used to make these claims were denied** Without credible, verifiable and peer reviewed evidence supporting the Applicant's contrary claims that the project will extract groundwater from a separate isolated basin, it must be assumed that the Project proposes to utilize water from the CGB.

2. The Project could adversely affect existing groundwater users in the area

Recent studies (Everett, 2013), have indicated that much of the groundwater extracted in the Cuyama Groundwater Basin is thousands to tens of thousands of years old indicating that simply "the mining of groundwater" is occurring. Given residential wells in the area are shallower than agricultural wells, this mining of groundwater could result in severe implications for residents and small farmers using residential-scale wells like *Condor's Hope Ranch*.

In addition, based on my review of evidence of increasing climatic uncertainty and by interpolating local dendrochronology records that disclose long-period historical and pre-historical trends, I believe that

higher extremes of dry periods (longer and more severe) <u>can be expected</u>. Tree ring analysis and reconstruction of climate has been done for the Santa Ynez River Watershed (Michaelsen and Haston, 1988) indicates that since 1537 there have been major fluctuations in precipitation variability including changes in the frequency of extremes and rare events that have not occurred during the time of modern written records. The recharge of waters to the Cuyama Groundwater Basin could be substantially diminished in the future based on these trends and related evidence.

3. Applicant Claims the "existing imbalance of the Basin is not relevant"

The applicant states that "imbalance" of the Basin is not relevant since the County of Santa Barbara Environmental Thresholds and Guideline Manual (1992) state a "threshold of significance of 31 acre-feet per year" for a project in the Cuyama Groundwater Basin to require further environmental review. These "thresholds" are severely out of date (25 years) and the Final MND more than tripled the amount of annual evaporative loss for the proposed "frost ponds" from 8.14 acre feet per year to 26 acre feet per year, based on the change of keeping water in the "frost ponds" year round to alleviate damage to pump and control systems. This alone equates to an increase of over 300% in loss of valuable water to direct evaporation and thins the margin between the 1992 accepted "thresholds" of 31 acre feet per year. There is no guarantee in place that the "frost ponds" will only hold 3 feet of water in non-frost months and most likely the loss will be significantly greater than 31 acre feet per year for ponds with a cumulative area of 15.6 acres in an arid environment such as the Western Cuyama Valley. Additionally, the 31 AFY Threshold was calculated based on a lesser level of overdraft, as detailed in Table 2 of the County's 2008 CEQA Thresholds, which is based on 1992 data. The 1992 Cuyama Groundwater Basin overdraft was 28,525 AFY, whereas the Negative Declaration discloses that the 2014 overdraft is at least 30,000 AFY (Page 35 of FMND). The 31 AFY Threshold should be recalculated to reflect more current data on the status of the Cuyama Groundwater Basin.

According to the Santa Barbara County Planning Department's CEQA Thresholds and Guidelines Manual (2008) "Groundwater supplies are limited in terms of the annual amount of water which can be withdrawn without causing a long term drop in water levels ("Safe Yield") and in the amount of total storage of a basin which can be removed without significant environmental effects ("Available Storage"). These limits make **conservative use** of water a necessary policy in Santa Barbara County in order to avoid or minimize significant and lasting adverse environmental effects" (Pages 67-68).

Therefore, I disagree with sub sections **a**. and **g**. through **j**. of section 4.16 Water Resources/Flooding of the Final Mitigated Negative Declaration dated August 11, 2017 for project 16CUP-00000-00005 which state Less than Significant Impacts. Based on the overdrafted condition of the Greater Cuyama Groundwater Basin, which per CDWR Bulletin 118 includes the Cottonwood Sub-basin, I believe that the project could result in Potentially Significant Impacts in these areas of Water Resources.

4. The Applicant has grossly underestimated water usage for the Project

I have carefully reviewed and disagree with the conclusions in the "Analysis of Reservoir Evaporative Losses" provided to the Applicant by *Monsoon Consultants* because it does not accurately account for local climatic conditions. Based on my knowledge of the area, and on available data, I believe that the overall annual evaporative losses would significantly exceed the threshold of 31 acre feet per year, and

further that this threshold should be lowered to avoid significant direct project and cumulative impacts to the Cuyama Groundwater Basin. The analysis understates the amount of evaporation by not taking into account potential "frosts" during the month of May and the minimum storage needed in winter months to alleviate damage to pond-pump infrastructure.

In addition, water duty projections are unrealistic. The Applicant has suggested that the Vineyards will only consume a depth of approximately 0.8 feet of water per year. The UC Cooperative Extension estimates "Irrigation Water Use by Crops in Santa Barbara County" (Included in this correspondence as Appendix A). The chart, which is a part of the County's CEQA Thresholds, lists a range of 1.0 to 3.0 feet of water usage for Grapes in the Santa Ynez, Los Alamos and Sisquoc Valleys with an average value of 2.0 feet. As of 1981 when this work was accomplished, viticulture in the Greater Cuyama Valley was rare to absent and thus no values were presented for such locale. However, it is well established that the Cuyama Valley provides a much hotter and more arid climate than the Santa Ynez, Los Alamos or Sisquoc areas and does not experience any "sea breeze" which cools and increases humidity in those regions. For all these reasons, I believe that the value of projected water use to raise wine grapes in the Cuyama region must be assumed to be greater than 2.0 feet. Using a value of 2.5 feet which in my opinion more accurately describes likely water usage for the Project in its location, with 850 acres in production, this equates to an extraction of approximately 2130 acre-feet per year in a "critically overdrafted groundwater basin" as defined by CDWR, versus the approximate 680 acre-feet using the value (depth) of 0.8 feet. Thus, the combination of the project's extraction to maintain and utilize the frost ponds with the more realistic amount of water needed to grow the crops themselves supports the conclusion that the project will have a significant cumulative impact to the Cuyama Groundwater Basin.

5. The applicant has overemphasized needed usage of water for "frost protection"

It is widely known in the viticulture industry that water consumption for "frost protection" can be minimal when utilizing the latest technology in fine spray nozzles compared to the overall consumptive water use for the maturity and viability of such crops (Sisquoc Ranch Staff, 2017). It is also widely known that in many agriculturally developed areas where "instantaneous" water production from groundwater wells cannot meet needed irrigation requirements, "storage" ponds are commonly used. These facts, combined with the size of the proposed ponds at just under the minimum requirement to be defined as a "Dam" by the US Bureau of Reclamation at 49 acre feet, raises a distinct possibility (if not probability) that the applicant will use these structures for routine irrigation since the frost protection goals can be met through different techniques that do not justify such large water storage facilities on these lands.

While the Applicant threatens that without the frost ponds, they could be forced to install larger pumps and/or add additional wells, these alternatives would avoid the evaporative losses from the surface of the frost ponds, and would avoid the other impacts to the environment from constructing the frost ponds.

Summary

There has been a historical lack of "comprehensive planning" for water supplies and land use in the Cuyama Valley, where all water users must rely exclusively on groundwater or are limited to "dry farming". In the Cottonwood Subarea where the proposed project would extract groundwater there have been no peer reviewed published technical reports by any public or private agency which would support the conclusion that ample groundwater supplies exist and surface detention of water is a

prudent practice. In addition, the Sustainable Groundwater Management Act (SGMA) dictates conservation requirements must be put in place by 2020.

Based on my knowledge, experience and study of local geohydrology, and review of the proposed project and MND, I believe there is ample evidence that supports the conclusion that the proposed project could result in significant adverse effects to the water resources of the Cottonwood Subarea of the Cuyama Groundwater Basin as designated by the California Department of Water Resources Basin 3-13 (CDWR, 2003). It is my opinion that Santa Barbara County should not approve the referenced project (16CUP-00000-00005) without complete environmental review in regards to utilization of existing Water Resources.

) Gibbs

Dennis Gibbs, P.H. Yulalona Hydrology



References

Ahlroth et al, Santa Barbara County Water Agency Technical Memorandum, 1992

California Department of Water Resources, Bulletin 118, 2003

Crippen, Natural Water Loss and Recoverable Water in the Mountain Basins of Southern California, USGS GSP 417-E, 1965

Sisquoc Ranch, Personal Communication, 2017

Everett et al, <u>Geology</u>, <u>Water-Quality</u>, <u>Hydrology</u>, <u>and Geomechanics of the Cuyama Valley Groundwater</u> Basin, California, 2008–12, 2013

Hanson et al, Hydrologic Models and Analysis of Water Availability in Cuyama Valley, California, 2014

EKI Consultants, <u>Preliminary Findings from Review of the USGS Study of the Cuyama Valley Groundwater</u> <u>Basin</u>, 2017

Michaelsen and Haston, <u>Reconstruction of the flows of the Santa Ynez River at Bradbury Dam, Santa</u> Barbara County California 1537-1964, 1998

Monsoon Consultants, North Fork Vinevards Frost Protection Reservoirs #1, #2 & #3 – Analysis of Reservoir Evaporative Losses, 2017

NOAA Technical Report NWS 34, Mean Monthly, Seasonal and Annual Pan Evaporation for the United States, 1982

Pierotti et al, <u>Evaluation of Groundwater Overdraft in the Southern Central Coast Region, Technical</u> Information Record SD-98-1, 1998

Santa Barbara County Planning Department, CEOA Guidelines and Thresholds Manual, 2008

Santa Barbara County Water Agency, <u>Adequacy of the Groundwater Basins of Santa Barbara County</u>, 1977

Santa Barbara County Water Agency, Santa Barbara County 2011 Groundwater Report, 2011

Santa Barbara County Water Agency, 2014 Groundwater Update, 2014

Santa Maria Valley Water Conservation District Staff, Twitchell Dam, Personal Communication, 2018

Singer and Swarzenski, <u>Pumpage and Ground-Water Storage Depletion in Cuyama Valley, California,</u> <u>1947-66</u>, U.S. Geological Survey Open File Report, 1970.

Sweetkind et al, <u>Construction of 3-D Geologic Framework and Textural Models for Cuyama Valley</u> Groundwater Basin, California, 2013

Turner, K.M., Reliability of Storage Schemes, <u>Tree Rings, and Hurst Phenomena, California Department</u> of Water Resources, 1992.

UC Santa Barbara Bren School, <u>Conservation Assessment for the Cuyama Valley:</u> <u>Current Conditions and Planning Scenarios</u>, 2009

UC Santa Barbara Cooperative Extension, Irrigation Water Use by Crops in Santa Barbara County, 1991

United States Department of Agriculture, <u>Cuvama Valley Irrigation Water Management and Ground</u> Water Study, 1988

United States Geological Survey Press Release, <u>Cuyama Valley Groundwater Withdrawals Are Double</u> <u>The Long-Term Replenishment</u>, 2014

Upson and Worts, Ground Water in the Cuyama Valley California, USGS WSP 1110-8, 1951

IRRIGATION WATER USE BY CROPS IN SANTA BARBARA COUNTY

	South Coast Area		Santa Maria & Lompoc Valleys		Santa Ynes, Los Alamos, & Sisquoc Valleys		Cuyama Valley	
CROP	Range	Ave	Range	Ave	Range	Ave	Range	Ave
<u>Field Crops</u> Beans Corn, field Grain, irrigated Sugar Beets			.5-1.3 1.5-2.2 .37 2.6-3.2		.9-1.5 2.0-2.8 .6-1.0 3.0-3.6	1.3 2.2 .8 3.2	1.0-1.7 2.4-3.2 1.0-1.8 3.6-4.6	1.5 2.8 1.5 4.0
Forages & pastures Alfalfa Pasture/irrigated Sudangrass		-	2.6-3.3 2.8-3.3 1.0-1.8	3.0	3.0-4.0 3.3-4.0 1.3-2.0		4.0-4.6 4.0-4.6 2.0-3.0	4.3
Ornamentals Cut Flowers/field Flower seeds Greenhouse- -Carnations	2.0-3.0	2.5	1.5-2.3 1.5-3.0		2.0-3.5	2.7		
-Mums, pompom -Mums, potted Turfgrass	3.0-4.5 4.5-5.5 2.5-2.8	5.5 2.7	2.5-2.8	2.7	3.0-4.0	3.5	3.5-4.5	4.0
<u>Trees and Vines</u> Avocados Deciduous Fruits Grapes Lemons Walnuts	.8-1.8 1.0-2.0	1.6 1.5 1.5	1.1-2.1 1.2-2.0 7-1.8 1.0-2.0 1.3-2.5	1.7	1.5-3.0 1.0-3.0 2.0-3.5		3.0-4.5	3.8
<u>Vegetables</u> Broccoli/Cabbage Cauliflower Carrots Celery Lettuce Potatoes Strawberries Tomatoes	2.5-3.5		1.3-1.5 1.5-2.0 1.5-3.0 2.0-2.5 1.0-1.3 1.5-2.0 2.5-3.0 1.5-2.0	1.4 1.7 2.3 2.2 1.1 1.7 2.7	1.5-2.0 2.0-3.0 2.0-2.5 2.0-2.5 1.0-2.0 2.0-3.0	1.7 2.5 2.2 2.2 1.5	2.5-3.5	3.

See back page for assumptions.