



VIA E-MAIL

April 20, 2007

Dr. Karl E. Longley
Chair
Regional Water Quality Control Board, Central Valley Region
11020 Sun Center Drive, Suite #200
Rancho Cordova, California 95670

Re: Comments on *Draft Waste Discharge Requirements General Order for Existing Milk Cow Dairies (March 23, 2007 draft)*

Dear Dr. Longley:

On behalf of the Community Alliance for Responsible Environmental Stewardship (CARES) and its member organizations, we thank you for the opportunity to comment on this very important proposed draft General Order. CARES coalition members represent virtually 100 percent of the California dairy industry, and include the three main dairy producer membership organizations (***Western United Dairymen, California Dairy Campaign*** and ***Milk Producers Council***) as well as the state's major producer-owned milk processing cooperatives and private companies manufacturing and marketing dairy products, and additional associations such as the ***Alliance of Western Milk Producers*** and the ***Dairy Institute of California***. It is the goal of our CARES coalition to assist your staff and Board by providing accurate, science-based and technically sound information and feedback on behalf of the many diverse groups that make up our large dairy industry in California.

As you know, the CARES coalition made extensive comments at your December 7 and December 13, 2006 meetings, as well as submitting written comments and technical reports in January 2007. We have engaged technical, legal and other appropriate experts throughout this process, as well as diligently working with your staff and our coalition organizations to identify and address the critical environmental, legal, logistical and economic issues raised by this draft order.

As always, we remain committed to being actively engaged and moving forward with this process to develop, adopt and implement a General Order for existing dairies that is protective of water quality and practical, efficient and cost-effective.

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The current draft reflects a tremendous number of improvements from the previous version. Your staff should be commended for their hard work and professionalism in considering, and where appropriate, adopting suggestions from the various stakeholders. Comments during the last round were extensive and came from a number of viewpoints, including the technical, legal, logistical, economic and other areas.

Our detailed technical comments on the present draft are included as a Technical Appendix to this letter. However, we wanted to here outline several major ideas we believe your Board should consider as we move forward, and a few key issues we believe must be resolved for the General Order to be successful in protecting water quality while not causing undue economic burdens to the state's dairy families.

Major ideas to consider before adopting this order

There can simply be no doubt that California dairies face the most stringent environmental regulations anywhere. This situation exists now – before adoption of this proposed order – due to the California Environmental Quality Act, Porter-Cologne, stringent new air quality protection rules, county level dairy ordinances and more. Unfortunately, California dairy families also operate under ever-slimmer profit margins as they attempt to compete in a global economy and against dairy production areas in other parts of this nation and other parts of the world. Under any scenario imaginable, this General Order significantly increases costs and regulatory burdens for Central Valley dairy farmers and increases the risk of driving dairy production out of state. This could mean the loss of tens of thousands, even hundreds of thousands of existing and potential jobs in the Central Valley over time, and serious detriment to our state's top agricultural commodity.

CARES recognizes that economic considerations do not trump the need to protect the environment. However, it is equally important that a wise balance be registered in this process and that practical, efficient and cost-effective measures be the watchwords of this general order. The CARES coalition members continue to have grave concerns about whether the measures in this order are indeed going to result in cost-effective environmental protection. We must ensure that this happens or we seriously risk irreparable damage to our agricultural economy.

In the long run, we believe a strong commercial agriculture sector is vital to preserving and protecting the Central Valley environment by providing productive green space and open space in a way that few other profitable enterprises can. Managed properly, dairies not only produce nutritious and healthful products for our nation, but also serve as a sort of recycling hub for California agriculture, consuming feed grown by other farmers, while recycling the otherwise unusable wastes of other crops, such as almond hulls, culled carrots, cotton seeds and almost any imaginable crop residues as cattle feed.

Dairies also recycle manure as an organic natural fertilizer and more and more dairies now play an important role in the renewable energy production sector, producing biogas to generate green electricity. And because livestock consume the waste products of distilling corn to produce ethanol, known as “wet distiller's grain,” dairy cattle also facilitate California production of this important renewable fuel. In short, we have the opportunity to preserve dairies as a positive force not just in our economy but in our

environment. To do so, we must recognize that dairies are not industrial waste treatment facilities or municipal landfills and should not be regulated as though they were. We must see them for what they are – family farming operations that operate under real-world market conditions and contend daily with the natural environment. Dairy operators are livestock caretakers, crop farmers, and resource stewards – they should not be treated as industrial waste disposal managers.

Major remaining issues

Much has been done right in the current draft General Order. A large portion of the focus is where it should be, on improving nutrient balance and nutrient management. Better research, education, training and tools will assist dairy farmers in doing an even better job at utilizing manure as an environmental resource. The draft order recognizes that this is not a job that can be “outsourced” to consultants, but really is a 365-days-a-year job on a farm and thus requires an unprecedented effort to improve the practices of an entire, large group of family farmers. CARES coalition members stand ready to assist the Regional Board in this truly historic effort.

However, CARES coalition members still have significant concerns about the approaches and strategies in the General Order for addressing the following areas:

- Groundwater monitoring – we support a more efficient, targeted approach and stronger scientific cause-and-effect understandings before results are used for enforcement;
- We oppose excessive “landfill” style lagoon retrofit engineering design requirements; we continue to be concerned about the use of groundwater modeling to demonstrate expected lagoon performance;
- Baseline herd sizes for this order for CEQA purposes should be set at adoption of this order;
- Don’t bury solid manure users in paperwork and regulation; and
- We support a firm but flexible enforcement approach for this “first-generation” permit.

We address these issues in more detail in our Technical Appendix, with specific wording change suggestions in some cases. However, here is a brief overview of CARES’ concerns in these areas:

Groundwater monitoring

The general order takes a “blanket” approach to monitoring dairies – the order requires that all dairies eventually must have monitoring wells installed, regardless of actual risk to groundwater, local hydrology, management capabilities, and most important of all, the likelihood that the wells will provide data that can be used to alter management decisions. The financial resources necessary to install the wells, gather samples, analyze data and submit reports on results runs into the hundreds of millions of dollars industry-wide. In response to CARES’ expression of these concerns (also voiced by academic and technical experts), the Board staff has agreed to include in the current draft General Order some cost-savings measures, such as reduced sampling frequency, and for this we are appreciative.

However, the savings realized will only slightly reduce the amount of money being largely wasted on this effort. The issue with groundwater monitoring with regard to dairies is that it is one of the least effective and most expensive methods of protecting water quality. In fact, it provides little useful data at all in the case of dairies (reference April 5, 2007 letter to your Board from Dr. Thomas Harter, Dr. Deanne Meyer et al of the University of California). Thus, the result of imposing a blanket requirement for monitoring is precisely counter to the goal of practical, efficient and cost-effective. Instead, blanket monitoring is expensive, impractical, does nothing to protect groundwater directly and is unlikely as proposed to produce information that would lead to effective control strategies. Fortunately, there is a better way. CARES proposes that the Regional Board use groundwater monitoring in a targeted and strategic manner when risk truly calls for it, and that the Regional Board work with the academic community, dairy industry and interested stakeholders to develop an effective monitoring program geared to validate good management practices and control strategies.

It is also very important to understand the limitations of groundwater monitoring for enforcement purposes. Dairies have unique discharge characteristics. For example, one of the primary constituents of concern with regard to dairy wastewater storage and application is nitrate and other forms of nitrogen, which are also prevalent in the ambient environment and groundwater throughout the valley. Cause-and-effect relationships are not as clear as in cases when the constituents being tested for would not be expected to occur naturally in the environment or groundwater, such as in the case of an underground gasoline storage tank. The science of establishing the source(s) of nitrates in groundwater wells is still emerging. A strong, science-based link between cause and effect must be established before groundwater data are used for enforcement purposes.

Lagoon retrofit engineering design

One of the most striking and disturbing changes in the current draft is the suggestion that dairies wishing to pursue expedited review (Tier I) build double-lined leachate collection ponds to store wastewater until it can be applied to crops. This creates an unprecedented standard for dairy lagoons, essentially requiring zero leakage, while driving up the costs of lagoon construction as much as 400 percent, or hundreds of thousands of dollars per lagoon. Manure retention ponds are used to hold manure until it can be applied to crops as fertilizer. The ponds are not used for permanent storage and should not be required to be constructed to the standards applicable to permanent storage facilities. This is an example of forgetting that dairies are farms that use organic fertilizer to grow crops; it treats them as though they are landfills or hazardous waste storage facilities.

CARES coalition members have been supportive of upgrading the current Title 27 standards for lagoons, which can be inadequate in some hydrological situations, to a performance (seepage-based) standard. Engineers understand that there is more than one way to meet a standard. It can be done with a clay liner, a plastic liner or a combination of both. Engineers will choose different solutions depending on site-specific conditions. Making manure lagoons “leak proof” would be an expensive, wasteful and misguided use of resources. Instead, by building lagoons to tough, time-tested federal standards (Natural

Resources Conservation Service), we can assure that the ponds can be expected to perform adequately and will pose no more risk to groundwater than application of manure to crops. In rare cases where an NRCS standard lagoon would not be appropriate, the Regional Board retains the authority to require more.

CARES coalition members also remain very concerned about the proposed process to demonstrate that Tier II lagoons can be expected to perform adequately. We support the Regional Board's policy of requiring soil testing, engineering design demonstration and an operation and maintenance plan for lagoons. However, we believe the Regional Board staff policy of requiring groundwater modeling makes it overly burdensome or impossible to gain approval for lagoons, even if they meet generally recognized engineering standards and all other requirements of the Regional Board. The modeling requirement is inappropriate and sets a standard that is both impossible to meet in most cases and misinterprets the Resolution 68-16 non-degradation policy as applying to agriculture. Simply put, commercial agriculture with the very best technology currently available cannot be conducted with no impact and no degradation to groundwater. Modeling sets the bar for an acceptable lagoon at "no degradation" when the appropriate standard should be Best Practicable Treatment or Control (BPTC). Natural Resource Conservation Service standards for compacted clay liner and plastic-lined lagoons in fact meet these requirements without further need to use groundwater modeling.

CEQA compliance

The order's clear intent is to allow reasonable herd size fluctuation for dairies covered under the order (plus or minus 15 percent). The draft order sets the herd baseline almost two years ago, possibly because it was not anticipated that the order itself would not be adopted until 2007. It is not appropriate or reasonable to set the effective date for CEQA compliance for dairies under this order at a date significantly prior to adoption of this order. CARES urges the Board, for purposes of CEQA compliance, to set baseline herd size for affected dairies at the time of adoption of this order.

Written agreements

The current draft calls for written agreements between dairy operators and off-site haulers and users of solid manure. Solid manure is a fertilizer resource that does not pose significant environmental risks and should be subject only to simple reporting requirements, e.g. a simple shipping manifest identifying the buyer and seller. CARES makes specific suggestions for revised wording that eliminates unnecessary paperwork while keeping the lines of responsibility clear. Doing this will encourage non-dairy farmers to use manure as a crop fertilizer, increasing the number of viable options for utilizing this resource and establishing nutrient balance on dairies.

Enforcement policy

The current draft order seems contradictory in places with regard to enforcement flexibility. CARES coalition members feel strongly that this order is a "first-generation" permit that sets especially stringent and complex requirements for dairy producers. Producers making a good-faith effort to comply with the requirements should not be subjected to unnecessarily harsh enforcement in the event of failure to meet every

requirement. CARES suggests some specific language changes that will assist in clarifying enforcement policy.

Again, we appreciate the opportunity to comment on this historic regulation and our CARES coalition members look forward to working with your Board to adopt and implement regulations that protect our environment, minimize economic impacts for dairy families and local economies, and enjoy the broadest possible support among stakeholders.

Sincerely,

A handwritten signature in black ink, appearing to read 'J.P. Cativiela', written over a light gray grid background.

J.P. Cativiela
CARES Program Coordinator

C: Katherine Hart, Vice Chair
Paul Betancourt, Board Member
Christopher Cabaldon, Board Member
Cheryl K. Maki, Board Member
Sandra O. Meraz, Board Member
Soapy Mulholland, Board Member
Dan Odenweller, Board Member
Pamela Creedon, Executive Officer

Enclosure: Technical appendix

TECHNICAL APPENDIX
CARES Specific Comments on the General Order WDRs for Existing
Milk Cow Dairies (March 23, 2007 Draft)

General Order – Findings

Finding 10, 11, 19(a) and Attachment “E”

Comment: The tentative Order correctly finds that its adoption is categorically exempt from CEQA. However, this Order contains language that could potentially exclude a large number of existing dairies from coverage under the Order. The troublesome language is contained in Findings 10, 11, 19a and Attachment E. This language presently excludes from coverage under this Order any existing dairy that has increased herd size over 15 percent from the herd size existing in the Report of Waste Discharge (ROWD) filed in response to the Central Valley Board’s request of October 17, 2005. The ROWD is the first key date and the second is the date of the Board’s decision to adopt this General Order. Rather than exclude such dairies from coverage, it is recommended that they be covered, so long as they submit an updated ROWD and document compliance with CEQA. CARES also recommends that for purposes of calculating herd sizes and herd size fluctuations, that operators be allowed to report herd sizes either in mature dairy cows or “Animal Units.” Some county governments use the “animal units” so allowing dairy producers this option will allow them to use a consistent reporting method. “Animal units” calculations can also properly capture factors such as an increase in mature cows coupled with a reduction in heifers and calves, so that herd size is not incorrectly overestimated. “Animal units” based calculations can also be used to accurately reflect the impact of switching herds between breeds, such as replacing Holstein cows with Jerseys.

Suggested Rewording:

1. Finding 10.
 10. For the purposes of this Order, existing herd size is defined as the maximum number of dairy cows (or equivalent number of Animal Units) reported in the Report of Waste Discharge filed in response to the 2005 Report of Waste Discharge Request Letter, plus or minus 15 percent of that reported number to account for the normal variation in herd sizes. Also included are herds above that size present at a dairy on the date of adoption of the Order, provided (1) the dairy was existing on 17 October 2005, and (2) that an updated Report of Waste Discharge is filed within 90 days of adoption of this Order, together with documentation of CEQA compliance.

2. Finding 11.

11. For the purposes of this Order, an increase in the number of mature dairy cows (or equivalent number of Animal Units) of more than 15 percent beyond the maximum number reported in the ~~Report of Waste Discharge filed in response to the 2005 Report of Waste Discharge Request Letter~~ Existing Conditions Report is considered an expansion.
3. Finding 19a.
 19. The adoption of this Order is categorically exempt from CEQA because:
 - a. Consistent with the “existing facility” exemption of Title 14 CCR Section 15301, eligibility under this Order is limited to milk cow dairies that were existing facilities as of 17 October 2005. This Order does not authorize expansion of use beyond that existing as of ~~17 October 2005~~ the date of adoption of this Order. Existing dairies that have expanded use by increasing herd size more than 15 percent beyond that existing as of 17 October 2005 shall file updated Reports of Waste Discharge and document CEQA compliance. Restoration of, or improvements to dairy waste management systems to ensure proper function in compliance with this Order will involve minor alterations of existing private facilities.
4. Attachment E.
 13. “Existing facility” is defined, consistent with Title 14 CCR Section 15301, as a milk cow dairy subject to Waste Discharge Requirements Order No. ____ that is fully constructed and operating as of 17 October 2005 ~~and which has subsequently undergone no expansion in the size or scope of its herd, facilities, or operation as identified in the Report of Waste Discharge submitted in response to a requirement dated 8 August 2005 from the Central Valley Water Board.~~
 14. “Existing herd size” is defined as the maximum number of mature dairy cows or animal units reported in the Report of Waste Discharge submitted in response to the 8 August 2005 requirement of the Central Valley Water Board to submit such Report, plus or minus 15 percent of that reported number to account for the normal variation in herd sizes. Also included are herds above that size present at the dairies on the date of adoption of Waste Discharge Requirements General Order No. _____, provided (1) the dairy was existing on 17 October 2005, and (2) that updated Reports of

Waste Discharge are filed within 90 days of the adoption of Waste Discharge Requirement General Order No. _____ and that CEQA compliance is documented.

Comment: The present wording of the definition of “Expansion” will discourage dairy operators from doing more than just the minimum. The better operators are likely to have additional land and pond capacity to be sure that they do not discharge or violate the General Order. The present wording in this definition would not allow them to build in extra capacity without a penalty of being excluded from the General Order and placed through CEQA. The definition of expansion should focus on the number of animal units the facility has on the date of adoption and any increases outside of the normal fluctuations in herd size would be considered an expansion and they would need to conduct the necessary CEQA and Board notifications.

Suggested Rewording:

15. “Expansion” is defined as, but not limited to, any increase in the existing herd size (i.e., by more than 15 percent of the maximum number of mature dairy cows or equivalent number of Animal Units report in the Report of Waste Discharge submitted in response to the 8 August 2005 letter from the Executive Officer Existing Conditions Report required by Waste Discharge Requirements General Order No. _____) or an increase in the storage capacity of the retention ponds or acquisition of more acreage for reuse of nutrients from manure or process wastewater in order to accommodate an expansion of the existing herd size. “Expansion” does not include installation or modification of facilities or equipment to achieve compliance with the requirements of Waste Discharge Requirements General Order No. _____ ~~so long as the modification or installation is sized to accommodate only the existing herd size.~~

Finding 20 (a)

Comment: This Finding is worded to imply that no storm water of any type (clean or that which has come into contact with waste) can be discharged from the production area. The federal Clean Water Act encourages the separation and diversion of clean storm water from the production area to limit the amount of manure water that must be stored on-site and reused. Finding 20 (a) needs to be reworded to ensure that clean storm water can still be diverted from the production area consistent with the intent of the federal Clean Water Act.

Suggested Rewording:

- a. Discharge of waste and/or storm water that has contacted manure or other waste to surface waters from the production area.

Finding 24

Comment: Finding 24 in the Tentative General Order is worded to imply that all dairy operators have been polluting. The statements in Finding 24 are overly broad and paint all dairies with the same brush regardless of their environmental management. This is not the case and there is no evidence presented in the General Order or in the attached Information Sheet that supports such broad statements. The following is a suggested revision that attempts to maintain the emphasis of the tentative General Order.

Suggested Rewording:

The milk cow dairies at which this Order is directed were in existence prior to October 2005 and ~~many~~ some were constructed several decades ago. The present waste management systems at all ~~these~~ existing dairies need to be evaluated to see if they are ~~commonly not capable of~~ capable of preventing adverse impacts ~~on~~ to waters of the state ~~either because of their outdated design or need for maintenance or both.~~ This Order requires the evaluation of all waste handling facilities and nutrient management practices to ensure they are protecting water quality. It is ~~also~~ unclear if ~~historic~~ design or operation of these dairies has ~~presumptively~~ resulted in an adverse effect on the quality of waters of the state. Groundwater data are needed to determine the existence and magnitude of these impacts. ~~If data document impacts, continued operation of dairies with waste management improvements will perpetuate the ongoing adverse water quality effects caused by the generation and disposal of dairy waste.~~ Groundwater data collected as part of this Order will assist in determining the existence and magnitude of water quality impacts from these dairies, as well as the effectiveness of improved environmental management.

Finding 25

Comment: This General Order will implement Senate Bill 390. Under SB 390, the Board has already implemented an equally complex program for irrigated lands. In that effort, the Board laid out its expectations clearly; a parallel version of the Board's language for irrigated lands should be carried over to this General Order for dairy facilities. Because of the present length of Finding 25, it is suggested that a new finding be included immediately following Finding 25 to lay out the Board's expectations.

Suggested Wording of a New Finding:

The Central Valley Water Board does not expect that all applicable water quality standards will be achieved in all waters of the State in the Central Valley Region within the term of this General Order nor does the Water Code or State Water Board Resolution 68-16 require instantaneous compliance with applicable water quality standards. Due to the large number of dairy facilities within the scope of the Board's jurisdiction, the lack

of direct regulation in the past, the lack of information about the status of specific sites and the unprecedented scope of the program, it is reasonable to establish a schedule that sets forth a process to collect the necessary information and require management plans to control the sources of the most significant discharges of waste as that information is being developed. To satisfy the conditions of the General Order, each dairy facility must submit technical reports in accordance with Water Code Section 13267, conduct monitoring as required by Water Code Section 13269, implement management practices, monitor and evaluate the effectiveness of these management practices, refine the management practices to improve their effectiveness where necessary, protect against pollution and nuisance, and protect the quality of the waters of the State. In moving toward full protection for all waters of the State, the Board expects compliance with the schedule set forth in the General Order and will use its enforcement powers to ensure that all facilities are making progress toward the goals of this program and are protecting water quality.

Finding 29

Comment: The wording of Finding 29 implies that State Water Board Resolution 68-16 will be applied to the Land Application Areas and used to regulate the application of water and nutrients to farmland. This is a huge step ahead of the intent of the original Resolution 68-16. The overriding question is whether State Water Board Resolution 68-16 was ever meant to be applied to farming operations and water use. It is interesting to note that this resolution has never been considered in any State Water Board water right hearings on water use, so CARES questions why it is being applied here along with groundwater monitoring. The best management practices being asked for are standard irrigation practices that are used by most farming operations and Resolution 68-16 is not being applied to other types of farming operations. Farming operations and other types of water use, including urban water use, cause water degradation. If farming is considered under State Water Board Resolution 68-16, then it must be recognized in the General Order that the Best Practicable Control Technology may be a set of continually evolving Best Management Practices (BMPs) and the consequences of those BMPs may not be known for years. CARES is concerned that State Water Board Resolution 68-16 may not be the most efficient way to regulate, especially if it is to include farming practices on the dairies without considering all the other water use practices that go on around the dairy facility and how those practices influence water quality.

General Order – Prohibitions

Prohibition A (8)

Comment: The use of solid manure by neighboring farmers should not be prohibited. The use of a formal written agreement for such use would likely discourage these farmers from using manure fertilizers for crop production.

Suggested Rewording:

8. The application of wastewater to lands not owned, leased, or controlled by the discharger without written permission from the landowner or in a manner not approved by the Executive Officer, is prohibited.

General Order – General Specifications

General Specification 7 (a)

Comment: The staff proposal for Tier 1 consideration is one of the most significant changes to the General Order from the previous draft. We have continued to emphasize that this General Order needs to be practical, efficient and cost-effective. State Water Board Resolution 68-16 also stresses the use of Best Practicable Treatment and Control. The present staff proposal for Tier 1 retention ponds is none of these. The use of Tier 1 would place a financial burden on the dairy industry that is unacceptable. It also places a new requirement for pond design that to our knowledge is not currently required or used on any dairy facility in California. This is effectively a discharge prohibition as the costs associated with this measure are as much as 400 percent higher than currently accepted alternatives. Such a level of groundwater protection is effectively a “no discharge to groundwater” prohibition and this level of engineering design is not required of any similar type of industry in the state. CARES does not understand how the Board could ask for such a level of groundwater protection for the storage pond when the pond contains no hazardous waste (*as prohibited by Prohibition A(1)*) nor does it contain any designated wastes and only contains animal waste (*as defined by Finding #13 and Prohibition A(5)*). If this level of protection is needed, it seems illogical that the Board would then allow the pond to be pumped out and applied to land for nutrient recycling (*as per Prohibitions A(8-11)*) (*General Specification B(4)*) and all the Land Application Specifications). There is no location in the State that we know of where double lining of a storage pond with leachate collection is required, and then the discharger is allowed to pump out the pond and apply it to land.

Recommendations: CARES suggests that all language related to Tier 1 design specifications be removed from the General Order at this time. We further suggest that following adoption of the order, the Regional Board work expeditiously with the engineering and academic community, dairy industry and other stakeholders to develop appropriate, science-based standards for retention ponds, including Tier I retention ponds, that are practical, efficient and cost-effective and meet standards for Best Practicable Control Technology.

General Specification 8 (b)

Comment: This section requires that Tier II designed ponds “include a technical report and groundwater model” which “demonstrate the amount and quality of seepage from the proposed pond and its effect on groundwater quality.” This appears to be an attempt within the proposed order to codify a previous staff policy for requiring use of mathematical models to demonstrate no degradation of groundwater. The policy appears to be based on an improper interpretation of Resolution 68-16’s anti-degradation language as it applies to agriculture. Given the state of technology available today, agriculture simply cannot be conducted with no impact to groundwater – this is true of general farming with commercial fertilizer, using organic fertilizer and with retention ponds designed for temporarily holding manure before it is applied to crops.

The appropriate standard for Tier II retention ponds is Best Practicable Treatment or Control. In most cases, this will require building to Natural Resources Conservation Service (NRCS) standards for animal waste storage lagoons. The focus of the Regional Board should be on ensuring that ponds are indeed built to these widely recognized standards and that appropriate demonstration of construction quality, soil testing and an operation and maintenance plan have been made. Requiring a model to demonstrate that no degradation will occur sets and inappropriate standard that cannot be met in a cost-effective manner and fails to recognize that the manure will be applied to land. The pond should provide a level of protection that is both economically and environmentally congruous to what is occurring on the surrounding cropland. Potential impact to groundwater from an NRCS standard pond is minimal and represents a tiny share of the overall nitrogen loading to groundwater when the entire farming operation is considered.

Recommendation: CARES recommends that all references to the need to use modeling be removed from this section and that this section be revised to reflect that Tier II ponds must be demonstrated to have been constructed to appropriate engineering performance standards.

General Order – Land Application Specifications

Land Application Specification C (2)

Comment: This section now stresses the need for a written agreement before any solid or liquid manure can be utilized off-site for nutrient management. This requirement is being imposed on the dairy operators while on adjacent land, chemical fertilizers and other organic fertilizers are being applied without any regulation or requirement for Best Management Practices. This puts the dairy operator at a disadvantage as the increased regulation will be seen as a negative and will discourage other farmers from using dairy manure as a fertilizer because of fear of increased regulation. The question remains as to whether other farmers using organic fertilizers (manures) are being regulated this stringently. This presents an impractical approach to solid manure. Dairy solid manure is a resource and should not be regulated to a point that it is considered a waste material. Consider that dairy solid manure averages about 10 pounds of nitrogen per ton of material, while manure wastewater may contain up to 200 lbs. of nitrogen per acre-inch

of liquid. This strongly suggests the regulatory focus should not be on solid manure but on proper use of wastewater.

When the dairy operator sends wastewater to neighboring lands to meet his Nutrient Management Plan (NMP), then that operator should have written agreements with other land owners to assure the Board that there is sufficient land to meet his NMP needs. However, when solid manure is being taken for use by other adjacent farming operations as a fertilizer resource, then the dairy operator should not be required to obtain a written agreement.

Suggested Rewording for Land Specification C(2):

2. No later than 31 December 2007, the Discharger shall have a written agreement with each third party that receives ~~solid manure or~~ process wastewater from the Discharger for its own use. Each written agreement shall be included in the Discharger's Existing Conditions Report, Nutrient Management Plan, and Annual Report. The written agreement(s) shall be effective until the third party is covered under waste discharge requirements or a waiver of waste discharge requirements that are adopted by the Central Valley Water Board. ~~and that are specific to the application of the Discharger's solid manure and/or process wastewater to land under the third party's control.~~ The written agreement shall:
 - a. Clearly identify:
 - i. The Discharger and dairy facility from which the ~~solid manure and/or~~ process wastewater originates,
 - ii. The third party that will control the application of the ~~solid manure and/or~~ process wastewater to cropland,
 - iii. The Assessor's parcel Number(s) and the acreage(s) of the cropland where the ~~solid manure and/or~~ process wastewater will be applied, and
 - iv. The types of crops to be fertilized with the ~~solid manure and/or~~ process wastewater.
 - b. Include an agreement by the third party to:
 - i. Use the ~~solid manure and/or~~ process wastewater at agronomic rates appropriate for the crops to be grown,

- ii. Incorporate the ~~solid manure and/or~~ process wastewater into the soil during ~~before~~ irrigation, unless a tailwater return system is being used, and
- iii. Prevent tailwater runoff from the fields that receive the ~~solid manure and/or~~ process wastewater.

Land Application Specifications C(2)(b)(iii)

Comment: This requirement for a user of solid and liquid material does not correspond to what the dairy operators have to do. The present wording is very restrictive for the third party and will likely stop all neighboring farmers from using solid and liquid manure as an organic fertilizer. This is contrary to the Board's desire to encourage recycling as specified in the Basin Plan. The requirements in the General Order are even more restrictive than a recent Reclamation Permit that the Board issued for wastewater reuse (City of Lincoln NPDES Permit No. CA0085103). This should be reworded to only include process wastewater users (as described in the previous comment) and be consistent with Prohibitions A(2) and A(10) that are used for the dairy operator.

Suggested Rewording Land Specification C(2)(b)(iii):

- iii. Prevent the runoff to surface waters of wastewater or irrigation supply water that has come into contact or is blended with wastewater. ~~tailwater runoff from the fields that receive the solid manure and/or process wastewater.~~

General Order – Provisions

Provision E (10)

Comment: Finding 25 of the tentative General Order correctly finds that Dischargers will need time to make the significant improvements in their facilities that will be necessary to meet the new and more stringent requirements. Finding 36 recognizes this fact and that revisions to the Order may be necessary to address issues not presently foreseen. However, Provision E (10) contains an absolute requirement that any instance of noncompliance with this Order is a violation of the law. This Provision should be modified consistent with the language of the findings.

Suggested Rewording of Provision E (10):

- 10. Any instance of noncompliance with this Order constitutes a violation of the California Water Code and its regulations. Such noncompliance is grounds for enforcement action, and/or termination of the authorization to discharge. Consistent with

Findings 25 and 36 above, enforcement discretion will be utilized where the Discharger is in compliance with schedules established in the required Waste Management Plan and Nutrient Management Plan.

Information Sheet

Information Sheet, Page IS-6, First Full Paragraph, First Sentence

Comment: Use of the word “high” is undefined and confusing. The word should be left out of the sentence as it does not change its meaning.

Suggested Rewording Information Sheet, Page IS-6, First Full Paragraph, First Sentence
Surface water can also be degraded and polluted by both the type and ~~high~~ concentrations of pollutants in dairy cow manure and manure wastewater.

Information Sheet Page IS-8, Applicable Regulations, Plans, and Policies, Title 27 California Code of Regulations (CCR), Third Paragraph, Third Line and Attachment “A” to the Monitoring and Reporting Program, First Paragraph, Line 8

Comment: The present wording places the burden of water quality problems off the dairy site to be the responsibility of the dairy operator. This places a financial burden on the dairy operator to install monitoring wells if any neighboring property shows high levels of nitrates which may have come from a variety of sources, including septic tank leach fields, fertilizer use and background water quality. We suggest that the wording be revised to what was in the previous draft. If the Regional Board finds that the dairy is a possible contributor, they already have the authority to request a report under Water Code Section 13267 and they do not need to make it mandatory here in the General Order.

Suggested Rewording of Information Sheet, Page IS-8, Applicable Regulations, Plans, and Policies, Title 27 California Code of Regulations (CCR), Third Paragraph, Third Line

The first phase of dairies ordered to install groundwater monitoring wells will be those dairies where nitrate-nitrogen is detected at 10 mg/l or more in any one domestic well, agricultural well, or subsurface (tile) drainage system ~~in the vicinity of the dairy.~~

Suggested Rewording of Attachment “A” to the Monitoring and Reporting Program, First Paragraph, Line 8

The first group of dairies ordered to install groundwater monitoring wells will be those dairies where nitrate-nitrogen is detected at 10 mg/l or more in any one domestic well, agricultural well, or subsurface (tile) drainage system ~~in the vicinity of the dairy.~~

Information Sheet Page IS-8, Applicable Regulations, Plans, and Policies, Title 27 California Code of Regulations (CCR), Third Paragraph, Third Line and Attachment “A” to the Monitoring and Reporting Program, First Paragraph, Line 8

Comment: The Board intends to utilize tile drain effluent monitoring to determine if monitoring wells are needed at a dairy site. The criterion utilized is when the tile drain effluent is > 10 mg/l nitrate-nitrogen. This will place that dairy in a high priority for installation of monitoring wells.

First if there are tile drains under the dairy, this means that there is a perched water table and the likelihood that nitrate-nitrogen from the dairy moves to deeper groundwater is low. In most cases in the Central Valley, where there is a perched water table, there are low permeability lenses (clay layers) that are precluding water from moving to the deeper groundwater. In most cases in the Central Valley also, these perched water tables are associated with very poor quality groundwater that has resulted from decades of irrigated agriculture on natural salty soils. Placing monitoring wells in such areas would result in little new information other than that which is being obtained from the tile drain effluent.

Second, the laws of physics apply to the tile drain system and more than 90 percent of the water that enters a tile drain comes from below the tile drain. The depth from which the water in the tile drain comes from is dependent upon the depth of the perching lenses. On the Westside of the Valley, recent studies have shown that more than 95 percent of the water entering the tile lines today is from below the tile lines and the age of the water in most instances was over six decades. It is difficult to see how this type of information can be used to determine who installs monitoring wells and how the quality of the water coming from the tile drain effluent analysis has anything to do with the operation of the dairy facility since what the dairy facility will be doing over the next decade will not show up in the tile lines for years if not decades.

Suggested Rewording of Information Sheet, Page IS-8, Applicable Regulations, Plans, and Policies, Title 27 California Code of Regulations (CCR), Third Paragraph, Third Line and Attachment “A” to the Monitoring and Reporting Program, First Paragraph, Line 8

The first group (phase) of dairies ordered to install groundwater monitoring wells will be those dairies where nitrate-nitrogen is detected at 10 mg/l or more in any one domestic well ~~or~~ agricultural well, ~~or subsurface (tile) drainage system in the vicinity of the dairy.~~ Those dairies where nitrate-nitrogen is detected at 10 mg/l or more in a subsurface tile drain system will be asked to continue monitoring of these drains and describe in the Nutrient Management Plan how the nitrate in the tile drain effluent is being utilized or how water quality is being protected from the discharge of this tile drain effluent.

Information Sheet Page IS-8, Applicable Regulations, Plans, and Policies, Title 27 California Code of Regulations (CCR), Second Paragraph, Final Sentence and

**Attachment “A” to the Monitoring and Reporting Program, First Paragraph,
Second Sentence**

Comment: The present wording means that a mandatory 100-200 dairies need to install monitoring wells each year. In reality, this should be based on the findings of the monitoring effort, the efforts to implement nutrient management plans and a nutrient balance, the availability of consultants and other professionals to prepare monitoring well plans and most important is the Regional Board’s ability to review and approve these plans while working on other parts of the General Order implementation. This reality needs to be made clear in both places in the General Order.

Suggested Rewording of Information Sheet, Page IS-8, Applicable Regulations, Plans, and Policies, Title 27 California Code of Regulations (CCR), Second Paragraph, Final Sentence and Attachment “A” to the Monitoring and Reporting Program, First Paragraph, Second Sentence

Add the following words to the end of each sentence in both places in the General Order: “The Executive Officer may issue monitoring and reporting program orders in phases requiring 100 to 200 dairies per year to install monitoring wells based on an evaluation of the threat to water quality at each site and based on resources available.”

Information Sheet Page IS-17, Applicable Regulations, Plans, and Policies, Water Quality Control Plans, Receiving Water Limitations for Dairies

Comment: This section is establishing receiving water limitations for both ground and surface waters while most of the limitations defined in the paragraph have never gone through a public review process. The establishment of water quality objectives is clearly defined as a public process by the Water Code (Basin Planning). Many of the limitations in this section come from a 1985 United Nations publication that has never been through any type of review. The limitations set in this paragraph would cause great financial hardship to dairy farmers and likely could not be met by any type of irrigated agriculture. The Water Code also defines that prior to setting any water quality objective or regulatory program for agriculture that a full evaluation of costs and financing needs be conducted. That is normally done through a full Basin Plan review process and to our knowledge has not been done. This process is then reviewed by the Office of Administrative Law and again to our knowledge, this has not been done or attempted.

Suggested Rewording of Information Sheet, Page IS-17, Applicable Regulations, Plans, and Policies, Water Quality Control Plans, Receiving Water Limitations for Dairies
Remove the entire paragraph from the Information Sheet or make it clear that this is presented as guidance for evaluation and is not intended for use in enforcement actions.

Information Sheet Page IS-18, Applicable Regulations, Plans, and Policies, Water Quality Control Plans, State Water Board Resolution 68-16, Best Practicable Treatment or Control Measures For Retention Ponds

Comment: The seepage rate for ponds that receive manure sealing credit is not consistent with Table 1 of the Information Sheet. One of them is a typo and needs to be corrected.

Information Sheet, Page IS-27, Enforcement

Comment: The discussion of enforcement needs to reflect the Board's desire to ensure that the required reporting be done in an efficient manner and is a priority for the Board in this first round of the General Order.

Suggested Additional Wording of Information Sheet, Page IS-27

9. Failure to submit required technical reports as required by the schedule set forth in this General Order.

Existing Conditions Report – Attachment A

Comment: With the requirement to now include all the lands that belong to the dairy, there is a need for more lines for the County Assessor Parcel Numbers (APN). Either provide additional lines on the first page or make the back of the sheet available for additional APNs.

Waste Management Plan – Attachment B

Page B – 2, I (D)

Comment: The way the table is presently written, the 3-month old calves are left out. Suggest the wording be changed to be consistent with that required by the air districts.

Suggested Rewording of the fifth row: Heifers: 3 to 6 ~~4 to 6~~ months

Nutrient Management Plan – Attachment C

Contents of a Nutrient Management Plan, Page C – 2, Dairy Facility Assessment, First Paragraph, Final Sentence

Comment: The requirement to store the records for the Nutrient Management Plan for 10 years are inconsistent with the present 5 year requirements in the CAFO rule of the federal Clean Water Act and the requirements for the Monitoring and Reporting Program and the Standard Provisions and Reporting Program of this tentative General Order. To avoid confusion over what needs to be kept for how long, the time frames should be made compatible with other parts of the Order and the federal Clean Water Act.

Suggested Rewording of Contents of a Nutrient Management Plan, Page C – 2, Dairy Facility Assessment, First Paragraph, Final Sentence

Copies of these assessments shall be maintained for ~~40~~5 years.

Technical Standards for Nutrient Management, Page C – 15, VII (D), Setbacks and Vegetated Buffer

Comment: The requirement to provide setback from critical wellheads needs to be clarified. There is no explanation here or in the information sheet of the origin or basis of this requirement.

Suggested Rewording Technical Standards for Nutrient Management, Page C – 15, VII (D), Setbacks and Vegetated Buffer

The minimum widths of setbacks and vegetated buffers must be doubled around the wellhead of a municipal drinking water supply well constructed in a sole-source aquifer.

Technical Standards for Nutrient Management, Page C – 9, V (5)(A)(10)

Comment: If the crop material is incorporated into the soil, its nitrogen content should be considered when establishing application rates, but waste application should not be prohibited.

Manure/Process Wastewater Tracking Manifest – Attachment D

Section Entitled “Written Agreement

Comment: This section should be made consistent with the comments we made on Land Application Specification C (2) of the General Order.

Suggested Rewording of the Section Entitled “Written Agreement”:

Does the Operator have a written agreement (in compliance with Land Application Specification C.2 of Waste Discharge Requirements General Order No.) with any party that receives ~~manure and/or~~ process wastewater from the Operator for its own use? (please check one)

_____ Yes _____ No

If the answer is no, the Operator agrees to have such a written agreement with any such party for any ~~manure and/or~~ process wastewater transferred after **31 December 2007** to such party. _____ (Operator shall provide initials here to acknowledge this requirement).

Monitoring and Reporting Program

Monitoring and Reporting Program, Page MRP 5 - 6, Monitoring of Surface Water, Table 1 – Storm Water Discharges to Surface Water from the Production Area, Storm Water Discharges to Surface Water from Each Land Application Area, and Tailwater Discharges to Surface Water from Land Application Areas

Comment: The monitoring and reporting program calls for extensive monitoring of storm water and tail water from dairy facilities that will be expensive, will be done prior to the Water Quality Coalitions under the Irrigated Lands Program developing the information you requested on where the priority water quality problems are, and will be counter productive to the success of the Water Quality Coalitions as a large percentage of the lands presently participating in this program are dairy farms and this land may be withdrawn from the Coalitions. The Board needs to set a monitoring program that focuses on existing water quality problems, not just on a set monitoring program for a dairy regardless of their location or management practices. The Board needs to continue to support the Water Quality Coalition program that they have started. The present proposal for individual farm monitoring program will not accomplish this effort.

In setting up the Water Quality Coalition program, the Board knew that it was difficult to relate what was happening on one farm to impacts downstream. The Board knew this when they set up the very successful Rice Herbicide Program in the Sacramento Valley and the subsurface drainage program on the Westside of the Valley. In each case an individual farm was not impacting water quality, but the fact that many farms were doing the same practice did impact water quality. It was not individual farm monitoring that identified the problem, it was first watershed monitoring that identified the issue and then individual farm monitoring was used to improve practices and reduce load. The Board used the same concept in setting up the Water Quality Coalitions under the Irrigated Lands Program. The goal was to identify the problem areas and then follow this with more strategic monitoring to identify the sources and needed corrective actions.

This General Order is set up to apply to all dairies throughout the Central Valley. Conditions are different throughout the valley's watershed areas. If the Water Quality Coalition program of the Board fails due to the withdrawal of the dairy lands from the program, it will be increasingly difficult for the Board to relate downstream water quality issues with actions on the dairy lands and the adjacent irrigated lands. Until the watershed areas needing more intense monitoring are better defined by the Water Quality Coalitions, monitoring by the dairy operators alone will just result in an unnecessary

expense by the dairy operators with little value to improving water quality since there will be no way to connect the discharge quality to what is happening downstream. If monitoring such as this is needed, this should be done in coordination with the Irrigated Lands Coalitions to identify where there is a priority for changes in management practices.

Recommended Changes: Allow the dairy operator to participate in the Irrigated Lands Program monitoring to determine if a storm water or tailwater monitoring effort is needed and where. Keep the requirement for individual farm monitoring in the General Order but initiate it only if the dairy operator fails to prepare and implement a Nutrient Management Plan (NMP) as required by the General Order. The dairy industry also remains committed to work with your staff on conducting a well laid out sampling program to determine the true impact of any storm water or tailwater discharges from dairy facilities and lands.

Monitoring and Reporting Program, Page MRP-15, General Reporting Requirements

Comment: General Reporting Requirement No. 1 states: “The results of any monitoring conducted more frequently than required at the locations specified herein shall be reported to the Central Valley Water Board.” This will provide a disincentive to dischargers to collect additional samples or conduct monitoring proactively to increase their own knowledge or to support research efforts.

Suggested change: This requirement should be removed.