Hines Nurseries
A Hines Horticulture, Inc. Company

Testimony of E.G. (Bud) Summers, Ph.D.
Hines Nurseries

Before the

California Regional Water Quality Control Board, San Diego Region

8 May 2002 (06 May Draft)

Good morning, Chairman Minan and members of the Board. My name is Bud Summers. I am Hines Nurseries' Vice President of the Nursery Division and General Manager of the Fallbrook and Irvine, California nurseries. I have both Ph.D. and Masters degrees in Horticulture, as well as a Bachelor of Science degree in Biology. I have over 25 years' experience in horticulture, including teaching horticulture at the university level and serving as a Statistical Analyst and Consultant for the U.S. Department of Agriculture. I am here today to comment on the Draft Nutrient Total Maximum Daily Load for Rainbow Creek.

Hines Nurseries

First, I would like to briefly review our relation to Rainbow Creek and the proposed TMDL. Last May we closed the purchase of a 256-acre nursery that straddles Rainbow Creek in the Rainbow Valley area upstream from I-15. We have managed the site since 1996, but were only able to secure title to the property last year.

Barbara Biernacka, our Propagation Manager in Fallbrook, has participated on the TMDL Technical Advisory Committee since 1999, although that committee has not met since December 2001. Earlier, other staff members also attended TAC meetings. We also participated in the supplemental monitoring program during the year 2000.

Hines Nurseries has been commended for our efforts with respect to our tailwater recovery and recycling systems, and we continue to do more. Through the existing recycling system, we currently recycle up to 80% or more of our irrigation waters. This system was originally installed by Flynn-Rainbow Nurseries to help reduce nutrients in Rainbow Creek, and Hines Nurseries continues to operate this tailwater recovery system today. The effectiveness of this system was discussed in the Regional Board-funded Final Report of the Rainbow Creek Non-Point Source Nitrate Reduction Program dated January 31, 1997. This system was noted as a demonstration of the "potential for reducing nursery runoff with an irrigation system retrofit." We presently utilize the Creek as part of the recycling system, but have no dry-weather discharges off site.

However, we agree that we now need to discontinue discharging into the creek, and we are proceeding to do so. Hines has now committed to implementing a new recycling system that will be completed in the next two to three years at a cost of between $ 1.5 and 2 million. The new recycling system, the plans for which have been already reviewed with your staff and County staff, will recycle more than 95% of our irrigation waters. We are currently working with the County of San Diego in order to expedite implementation of the system. Hines Nurseries is committed to working with

the Regional Board to achieve its nutrient goals for Rainbow Creek, and continues taking responsible action toward those goals.

Statements Regarding Hines Nursery are Inaccurate

I would like thank the Board for steps it has already taken to improve the factual content of the document. We appreciate the efforts Staff has made to address our concerns. Some of the required changes have been addressed in the circulated draft, and staff has informed us that they propose to make others.

The two most important statements about Hines that remain to be corrected are in Section 9.5.1.4. Specifically, the first sentence of the third paragraph regarding a condition of pollution and nuisance should be deleted as it is inaccurate. We firmly believe that Hines Nurseries has not caused or contributed to a condition of pollution, contamination, or nuisance. To the contrary, Hines' actions, and those of its predecessor, have significantly improved the condition of Rainbow Creek downstream from the nursery.

In addition, the last sentence in the same paragraph should be deleted because it also is inaccurate. We have reviewed the plans with staff and they indicated their support for the project. However, as a regulatory agency, I do not believe the Regional Board would normally approve specific construction plans. We have addressed these issues with staff, and understand that they intend to correct these sentences in the next draft.

General Comments on the Proposed TMDL

Further, we firmly believe it would have been more appropriate to have deferred this hearing until we and the other members of the regulated community were able to see how staff proposed to respond to both the comments made at the workshop and the written comments received by the date specified in the hearing notice. We were under the impression that this hearing would focus on a revised draft – not a draft that is in the process of being revised.

In addition, there are numerous problems inherent in this TMDL that make it inappropriate for adoption . Today, I will review only a few key points concerning the proposed TMDL. Additional comments are in our previous written statement that I have attached and distributed for your review.

The Board is clearly under pressure to do something, and considering the lack of data, this constitutes a valiant attempt – however, it is not what we understand to be a valid TMDL. What this document succeeds in demonstrating is the lack of any need for a TMDL and the lack of sufficient technically valid data to establish a TMDL.

We are particularly concerned with the unreasonably restrictive load allocations. For example, Table 4–Y specifies a daily load allocation of 1.8 pounds of nitrogen for all commercial nurseries in the watershed. Using the municipal drinking water criterion of 10 mg Nitrate as N per liter, a discharge of approximately 21,580 gallons of potable water would exceed the total daily nitrogen allocation for all commercial nurseries in the watershed. That is only about 1.7 per cent of Hines' average daily water use. A small malfunction in the irrigation system or even a small storm event could put us over the

allocation for all commercial nurseries in the watershed if you assume drinking water standard levels of nitrogen in the discharges. The TMDL needs to be more flexible to permit us to comply in a manageable way.

I will conclude my statement today with a few suggestions for making the TMDL more workable, if there is going to be one adopted in the near future, but first I want to briefly review some of our concerns with the draft.

Inappropriateness of the TMDL

The proposed TMDL is billed as a draft "Nutrient TMDL" in the Staff Report and in the Draft Resolution, but Rainbow Creek is not listed as impaired for nutrients. The assertion in Attachment A to Resolution No. R9-2002-0108 that "Rainbow Creek is currently identified on the Clean Water Act Section 303(d) list of impaired waters due to excessive nutrient concentrations" is incorrect. The Staff Report itself notes in the very first sentence of the Executive Summary that Rainbow Creek's listing is for "eutrophication." A paragraph later it is noted that, "eutrophic conditions have not been observed in the creek . . ." This fact is repeated in the last paragraph of page 9, where it is also noted that "Rainbow Creek is not stagnant or experiencing fish kills or excess decomposition of plant matter and their related adverse impacts."

A "Nutrient TMDL" is being proposed to address "eutrophication," not nutrient load, and "eutrophic conditions have not been observed in the creek." On what grounds, then, could the Board propose adoption of any TMDL – either for nutrients or eutrophication? TMDLs must be based on impairment listings -- they should not anticipate listings. Only if the State Water Resources Control Board revises the listing

for Rainbow Creek following its hearing currently scheduled for September should a Nutrient TMDL for Rainbow Creek be considered. Since there is no eutrophication, and nutrient concentrations have been greatly reduced since the 1980s, it would be more appropriate to delist the Creek for eutrophication and put it on a watch list for nutrients.

Scientific/Technical Problems with the Draft TMDL

The Staff Report is rife with scientific and technical problems. From the first page of the Executive Summary, Staff attempts to substitute assumptions for data: "nutrient concentrations appear to be contributing to excessive algal growth which can lead to eutrophic conditions that may result in decreased water clarity…" Speculation does not amount to science. We have been told that staff is going to revise the methodology to reduce the emphasis on nutrient concentrations through the use of flow data that was brought to their attention by EPA Region IX, however we have not seen the revised methodology. Any new methodology should moreover be peer reviewed. In fact, as the County has pointed out in their written comments, the current draft has yet to be peer reviewed.

The revised draft that staff proposes should be distributed for peer review and then re-circulated for public comment. When it is peer reviewed, we recommend that the aerial deposition assumptions and estimates also be reviewed. We understand that Dr. Keith Stolzenbach at UCLA is currently doing work on aerial deposition of nutrients in the Santa Monica Bay watershed and has indicated a willingness to review the aerial deposition aspects of this proposed Nutrient TMDL.

There are additional technical and regulatory problems with the TMDL as proposed by staff. I will ask our consultant, Mr. Richard Watson, to address these. However, before I do, I want to make a few recommendations to make the TMDL more workable should you decide to proceed with the TMDL despite the technical deficiencies with the draft.

Recommended Revisions to the TMDL

1. The initial target should be the drinking water standard, for which there is a more solid scientific basis. At a specified review date, numeric biostimulatory criteria could be added, if required.

2. The first phase of the TMDL should last for five years to allow the results of the new Hines Nursery recycling system and septic tank improvements made with AB 885 funds to become apparent.

3. If the stated or inferred desired goals taken from the explanation of the narrative water quality objective in the Basin plan for biostimulatory substances are to be used as numeric targets in a nutrient TMDL, another part of the explanatory material should also be included. The TMDL should specify that the defined "values are not to be exceeded more than 10% of the time unless studies of [Rainbow Creek] clearly show that water quality objective changes are permissible and changes are approved by the Regional Board." This would be consistent with the Basin Plan and provided needed flexibility in the proposed TMDL.

4. The daily load allocations specified in Table 4 – Y should be enforced based on running 30-day averages. This would provide an allowance for irrigation system malfunctions or other problems while meeting the objectives of the TMDL. Since the proposed biostimulatory criteria are so low and there is no actual nutrient impairment, this should more that protect beneficial uses.

5. The two incorrect references to Hines should be deleted from the TMDL.

Thank you for this opportunity to comment on the proposed TMDL. Hines Nurseries recognizes its responsibilities and has committed to spend more than $1.5 million to replace the tailwater system that we inherited with a state-of-the-art recycling system.

I would be pleased to answer any questions you might have concerning the operation of our nursery facility, but before I do, I would like to ask Mr. Watson to address other technical and regulatory concerns that we have with the TMDL as proposed.