

rana creek
LIVING ARCHITECTURE

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January 7th 2009

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CRWQCB - Central Coast Region
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Henrietta Stern
MPWMD Project Manager
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RE: RWQCB Response Letter

Dear Matt,

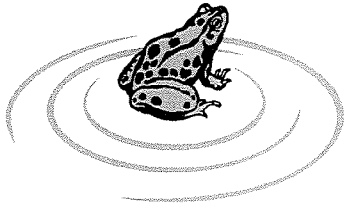
Thank you for your support of the proposed graywater system and water conservation measures for the Monterey Bay Shores Eco Resort. The sustainable design will result in energy conservation, recharge of groundwater resources and a net reduction in water demand by 24% compared to conventional use applications. Our intention is to comply with all applicable requirements, codes, and BMPs. Your constructive and informed comments are highly valued. We have revised the Process Flow Diagram to reflect your recommendations and I provide herein a brief response to each of your comments.

We have revised the water process flow diagram so that salt water pool and spa, graywater (mixed with collected and stored rainwater) will not be discharged to the storm drain as a combined overflow from the rainwater storage system. Instead, the water will be conveyed to below ground storage and infiltration. All graywater shall be disposed of via controlled subsurface irrigation and not discharged to any storm sewer or water of the US.

All rainwater will be collected from the green roofs, bioswales & raingardens. The green roofs will be constructed with an underdrain system to collect infiltrated rainwater (and potentially applied graywater) that is not removed via evapotranspiration. All roof combined overflows will be conveyed to storage and treatment.

The system is not design yet, but I provide the following comments relative to your suggested alternatives so we avoid NPDES permitting and comply with all graywater standards:

1) Graywater will be used to irrigate (via subsurface dispersal systems) areas employing an under drain system (roof areas) but all discharge will be conveyed to below ground storage, treatment, and/or and infiltration systems. We will design appropriate setbacks from graywater irrigation systems to french drains, curtain drains, foundation drains, cutoff walls, etc. to prevent entrainment and surface discharges of graywater). The proposed graywater irrigation and



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rainwater collection systems will be completely isolated from each other so no discharge to the storm drain will contain graywater.

Monterey Bay Shores will develop an ecological maintenance manual that will address the control of nutrient and organic compound discharges to the Sanctuary. Only organic fertilizers will be used and no pesticides and/or herbicides will ever be applied on the property. All nutrients and organic compounds in landscape runoff will be treated in wetlands prior to discharge. All overflows from storage tanks and living walls will be subject to monitoring and treatment prior to re use and prior to entering the infiltration chambers.

The graywater system storage will incorporate an overflow to municipal sewer from the graywater treatment system upstream of the storage tank. Monterey Bay Shores will coordinate with the Monterey Regional Water Pollution Control Agency regarding the potential discharge of storm water to the municipal sewer from the graywater treatment system during storm events.

Thank you for your constructive comments and suggestions.

Paul Kephart
Rana Creek

