

MEETING MINUTES

Monterey County Greywater Working Group

Tuesday, March 17, 2009

1:30 PM – 2:30 PM

Monterey County Business Council – Conference Room

1732 Fremont Blvd, 2nd floor

Seaside, CA



1:30 PM

Attendees:

Terry Black, Brac Systems and H2-O Mizer
Catherine Bowie, Cal Am Water
Kay Cline, Sustainable Seaside
Mike Dawson, President AMAP, Member at Large SAC
Mary Anne Dennis, Monterey County Health Dept, Environmental Health
Dan Fernandez, CSU Monterey Bay
Kim Ha, Monterey County Business Council
Brad Hagemann, Monterey Regional Water Pollution Control Agency (MRWPCA)
Keith Israel, Monterey Regional Water Pollution Control Agency (MRWPCA)
Leslie Jordan, Cal Am Water
John Kuehl, City of Monterey
Mary Ann Leffel, Monterey County Business Council
Sarah McCandliss, Sarah McCandliss Landscape Design
Mark McClain, City of Seaside
Stephanie Pintar, Monterey Peninsula Water Management District (MPWMD)

Review of Purpose by John Kuehl and Mary Ann Leffel

Hope to establish installation guidelines for greywater and water catchment systems in Monterey County. Working group will meet on a regular basis, with assignment of tasks in order to get work done, not just to meet without making any progress.

If there are key players who should be involved, please invite them and contact Kim Ha (kha@mcbc.biz) to be added to the mailing list.

DEFINITIONS

This is a key item since there is a lot of mis-information or misleading information in the public domain. Need to agree regionally on accepted terms so that everyone has same info and is on same page, using consistent terminology to avoid confusion.

California Building Standard's Plumbing Code (<http://www.bsc.ca.gov/>) already established some of the groundwork for us so that we don't need to reinvent the wheel.

1. GREY / GRAY WATER

- Verbatim from California Plumbing Code:

"Graywater is untreated waste water which has not come into contact with toilet waste. Graywater includes used water from bathtubs, showers, bathroom wash basins, clothes washing machines and laundry tubs or an equivalent discharge as approved by the Administrative Authority. It does not include waste water from kitchen sinks, photo lab sinks, dishwashers or laundry water from soiled diapers."

- Environmental Health Department uses this same definition for gray water.
- Agreement from group that we should use this definition verbatim.

2. RECYCLED / RECLAIMED WATER

- Agreement from group to set as part of our mission / scope that we are only talking about water OUTSIDE building, not inside; and for use ONSITE, not offsite.
- Agreement from group that the terms “reclaimed water” and “recycled water” have the same meaning and can be used interchangeably, though “recycled water” is preferred (term of the art).
- Title 22 of the California Code of Regulations defines reuse of wastewater according to subdivision (n) of Section 13050 of the Water Code:
 - “ *‘Recycled water’ means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefor considered a valuable resource.*”
- Title 22 defines criteria for specific levels of treatment (secondary, tertiary). In general, recycled water is treated to a level that does not meet drinking water standards.
- California Plumbing Code defines reclaimed water as wastewater that has been treated to tertiary standards:
 - “*Reclaimed water is water which, as a result of tertiary treatment of domestic wastewater by a public agency, is suitable for a direct beneficial use or a controlled use that would not otherwise occur. The level of treatment and quality of the reclaimed water shall be approved by the public health authority having jurisdiction. For the purpose of this appendix, tertiary treatment shall result in water which is adequately oxidized, clarified, coagulated, filtered and disinfected, so that at some location in the treatment process, the seven-day median number of total coliform bacteria in daily samples does not exceed 2.2 per 100 milliliters, and the number of total coliform bacteria does not exceed 23 per 100 milliliters in any sample. The water shall be filtered so that the daily average turbidity does not exceed two turbidity units upstream from the disinfection process.*
 - Specifically excluded from this definition is “graywater,” which is defined in Part I of this chapter.*”
- MRWPCA says that their definition for recycled water allows secondary treatment.
- Use calls out levels / criteria for both secondary and tertiary treated wastewater.
- California water code standards seem consistent with California plumbing code.

3. CATCHMENT WATER

- Should we call it rain water? Cistern water? Catchment water? NOT storm water?
 - Agreement from group that “catchment water” should be used as the general term for this category.
- MPWMD raised question: What about people trucking in water to fill a cistern? Same regular distribution process. No one has done it yet in our region, but other water districts in state are talking about this.
 - People who haul water have to be approved by State and can only haul POTABLE water, not sub-potable.
- Should differentiate between storm water and wastewater.
- Rain water limited to rooftop catchment?
 - Rooftops have bird, animal fecal material.
 - Recommend rooftop catchment only after first flush?
- What about ponds with surface water?
- What about ground water? Pipes underground, 4’ drains, sump pumps. Possible to put an allowance for “French drain”?
- Exclude general storm water?
 - What about storm water that is CAPTURED on homeowner’s site in enclosed, sealed system (not pond, nor open tank)?

- Enclosed rain barrel, rain cistern, underground cistern.
- Intent of plumbing code is that any type of catchment system needs to go through filtering process.
 - This is a given; otherwise, it will clog system.
 - Would it be a sand filter?
 - Need experts to say: Here is an engineered system.
- Cal Am requires backflow assembly/regulators and TESTING them, if there is a POTENTIAL for hazard if hooked up to potable side. Reduced pressure valve better than double-check valve.
- Monterey County code (adopted Chapter 16 for gray water standards), but no filter requirement.
- Assume underground watering, not drip or irrigation.
- Mike Dawson volunteered to come up with definition for “catchment water” to include “ground water,” or perhaps have two separate definitions.

4. BLACK WATER

- Include definition of black water for clarification, even though most people understand the meaning.
- Use definition from Sonoma County Greywater Working Group:

“Non-industrial wastewater which consists of untreated waste water that has come into contact with or consists of toilet waste, kitchen sink waste, dishwasher waste or similarly contaminated sources. Also known as blackwater, sanitary sewage, sewage, or septic wastewater.”

5. OTHER COMMENTS

- At the kick-off meeting in February, Allan Stroh from Monterey County Environmental Health Department mentioned a WERF study on long-term effects of using greywater in irrigation.
 - Didn’t scan in document → best to get link for download if available.
 - Kim Ha will post document online for next meeting.
- Homeowners get info from popular media which may be inaccurate
 - There will be gap between what’s possible.
 - What works in one part of country may not be practical elsewhere (ie., may rain a lot more in another state vs. our area).
- Hope to have regional uniform standard and allow installation of these systems if it is done in accordance with guidelines developed by this committee.
- How do we deal with water from soiled diapers in washing machine?
 - Categorized as “untreated sewage”?
 - Include separate handout.
- What about swimming pool water?
 - Categorized as sewer water?
 - Same thing with spa water – use to water landscape every time drain spa rather than let it go to waste.
 - Kim Ha volunteered to research if there are guidelines on this.

Case Study

- If go beyond current code, then should have a process to show a reason to do so.
- Come up w/engineered system, industry standards → ask Peter Haase (Fall Creek Engineering).
- How to monitor and control it?
 - Require individual homeowner not have access to recycled water from another provider nor connection to wastewater
 - Doesn’t allow spraying of non-potable water.
 - Tertiary-treated recycled water for food crops.
 - Title 22 doesn’t address it.

- MRWPCA mentioned project for a system to distribute recycled water with Marina Coast Water Management – will be online in a couple of years – purple pipe.
- We don't want to confuse people re: purple pipe (highly treated) vs. greywater.
- Labeling of grey water systems so that everyone knows what it means.
- Regulatory agency having authority to approve these systems
 - Mary Anne Dennis said that Monterey County code requires sign off by health department.
 - Plumbing code only mentions “authority having jurisdiction” but doesn't explicitly indicate that it should be health department.
 - Regional water board indicates health dept is sign off on grey water systems.
 - How many permits has Mo Co Health Dept approved? None.
- State is drafting policy on recycled water, but law change will take a year or longer.
 - Health Dept looking at short-term policy to make difference during rationing.
 - Long term policy, wait for state law.
 - Mary Anne Dennis believes that comment period ended for state draft on recycled water policy – will get status update.
- Need to simplify process for homeowners so that they aren't breaking the law.
 - Homeowners checklist – City of Santa Monica:
<http://www01.smgov.net/epd/residents/Water/graywater.htm>
 - Create small steps, avenue to give standard for homeowner to comply.
- What about regional water board? They don't deal with greywater.
- Charge in Monterey County is to conserve water:
 - Not a matter of IF but WHEN, so need to make recommendations on how.
 - Good to be proactive.
 - Once water rates double or triple, it will make economic sense to conserve water (same effect as requiring water rationing).
 - Give people some tools to do it right – give them *something*.
- Demonstration project that meet minimum requirements to showcase process, technical standards for grey water and water catchment systems.

Action Items

- Reading assignments – ALL
 - Kim Ha to post documents from Allen Stroh (from kick-off meeting) and other links, resources from working group members
 - Stick to models that are similar to our community, ie., Santa Barbara
 - Graywater.org
- California state draft on recycled water policy – Mary Anne Dennis will get status update for next meeting.
- Definitions for catchment water, ground water – Mike Dawson
- Research if there are existing guidelines for swimming pool / spa water reuse – Kim Ha
- Mission statement & scope – to be discussed at next Working Group mtg: Thursday, 4/2/09, 1:30 PM at MCBC Conference Room in Seaside.

2:30 PM

ADJOURN

Prepared by: Kim Ha



Competitive Clusters (C²) is a program of the Monterey County Business Council, in partnership with the County of Monterey for regional economic development.

C² Workgroup Site: http://c2.mcbusiness.org/page/c2_workgroup/