

IRP 2015-16 Update Issue Paper Addendum

Purpose:

To help inform future water resource decisions by identifying current and potential issues, opportunities, and actions in the areas of conservation, groundwater, recycled water, seawater desalination, stormwater/urban runoff, and graywater

Overall

Deliverable:

A concise local resources issue paper addendum (that includes all resource areas)

Overall Process:

- Utilize the 2010 IRP Update Issue Papers as a base to build the 2015-16 IRP Update Issue Paper Addendum
 - Do not need to revise/make edits to the 2010 Issue Papers
- Complete the Input Matrix
- Discuss and review comments, outline, and draft sections of the Issue Paper Addendum (homework and meetings)
- Review and finalize the Issue Paper Addendum

Instructions on the Review Matrix

- 1 Review the 2010 IRP Issue Paper
 - 1a http://mwdh2o.com/mwdh2o/pages/yourwater/irp/IRP_Appendix.pdf
 - 1b Review the appropriate resource section (A.7-1 to A.13-1)
 - 2 Provide updates/comments on this Input Matrix per water resource area
 - 2a Select the appropriate resource area tab
 - [Conservation](#)
 - [Groundwater](#)
 - [Recycled Water](#)
 - [Seawater Desalination](#)
 - [Stormwater/Urban Runoff](#)
 - [Graywater](#)
 - [Synergy](#)
 - [Overall](#)
 - 2b Complete tables and/or provide comments in the "Comment" column
 - Current and Future Issues/Challenges/Barriers
 - New Opportunities/Potential
 - Lessons Learned (what works and what doesn't)
 - Recommendations
 - Other (additional issue paper topics)
 - (add rows as needed)
 - 3 Email completed file to Metropolitan by **Friday, May 15, 2015**
 - 3a Subject line: "IRP Issue Paper - [list resource area]"
 - 3b Email to:

Conservation: Bill McDonnell	bmcdonnell@mwdh2o.com
Groundwater: Kathy Kunysz	kkunysz@mwdh2o.com
Recycled Water: Ray Mokhtari	rmokhtari@mwdh2o.com
Seawater Desalination: Warren Teitz	wteitz@mwdh2o.com
Stormwater/Urban Runoff: Matt Hacker	mhacker@mwdh2o.com
Graywater: David Sumi	dsumi@mwdh2o.com
Synergy: Matt Hacker	mhacker@mwdh2o.com
Overall: Stacie Takeguchi	stakeguchi@mwdh2o.com
- cc: Stacie Takeguchi stakeguchi@mwdh2o.com

**IRP 2015-16 Update Issue Paper
Graywater**

Current and Future Issues/Challenges/Barriers						
Number	Category/Topic (e.g., short-term, long-term, regional, local, etc.)	Details	Notes	Comments	Commentor	Agency
1	Unpermitted graywater usage; little oversight	Most existing graywater systems operate without a permit. Very difficult to track.		Laundry-only systems don't need a permit. Are lawn conversions tracked? Or sprinkler conversions? Legal, permit-exempt GW systems can be viewed in a similar manner.	Laura Allen	Greywater Action
2	Legality	While current technologies around the world support a range of graywater sources and uses, not all are legal in California, and may require permits and inspections		There are very few "packed" systems that meet CA requirements, are easy to install and easy to maintain.	Kim O'Cain	Santa Monica
				Codes have improved to support legal installations. Washer only systems, that don't alter plumbing, and follow guidelines are exempt from a permit.	Laura Allen	Greywater Action
3	Potential health risks	Improper use or storage can potentially lead to pathogens or vectors. Human contact is prohibited.		There have been no reported cases of illness related to greywater systems in Santa Monica	Kim O'Cain	Santa Monica
				Large scale implementation could create low flow conditions in sewer collection systems which could impede solids transport.	Harvey De La Torre	MWDOC
4	Maintenance	Graywater can clog drip systems without proper filtration and regular maintenance. Users should be educated and consider maintenance issues in their decisions to install a graywater system	Of the 6 permitted greywater systems discussed in the first white paper, only 1 remains. The others were removed or abandoned because the maintenance was more than expected	Greywater owners must know the long-term maintenance, time, costs, and contractors prior to installation. This customer purchased very old clothes washers (40 gallons per load) in order to get enough greywater to irrigation lawn, bamboo, other high water use plants.	Kim O'Cain	Santa Monica
				If the greywater outlets are larger they won't	Laura Allen	Greywater Action

Number	Category/Topic (e.g., short-term, long-term, regional, local, etc.)	Details	Notes	Comments	Commentor	Agency
5	Potential soil impacts	Without regular rainfall or soil flushing, minerals can build up in soil. With excessive rain, additional minerals can runoff into natural waterways and increase risk of algal blooms.		The greywater system mentioned above has not experienced mineral build-up in the soil nor plant health issues.	Kim O'Cain	Santa Monica
			Study of 83 residential greywater	Greywater is prohibited from running off a property by code. As a side note, the amount of nutrients in greywater (which could potentially cause algal blooms) is miniscule compared to any home using fertilizers. Please see our study where we analyzed soil from 83 landscapes being irrigated with greywater.	Laura Allen	Greywater Action
6	Aquifer risks	Graywater can add unwanted salts to water tables if the water table is high		GW is not allowed to be used if the aquifer is too high. People should not be using soaps with salts in them b/c they could damage their plants. People who learn about GW care about their landscapes and make these product changes so their GW is not salty.		
7	Costs	Monetary benefits alone often do not justify costs to owner				
8	Other Impacts	Reduces flows to existing recycling projects. Real issue for the OCSD/OCWD GWRS.			Harvey De La Torre	MWDOC

New Opportunities/Potential

Number	Category/Topic (e.g., water supply potential, partnerships, programs etc.)	Details	Notes	Comments	Commentor	Agency
--------	---	---------	-------	----------	-----------	--------

Number	Category/Topic (e.g., short-term, long-term, regional, local, etc.)	Details	Notes	Comments	Commentor	Agency
1	August 2009, CA adopts, Chapter 16a, Nonpotable Water Reuse Systems, made permanent January 2010.	Pioneers use of permit-free laundry systems in CA. Establishes 3 types of systems. Basic "laundry-to-landscape" systems not longer require permits or inspections.	2007 CPC, Title 24, Part 5, Ch 16a, Part I	Santa Monica requires they fill out a form but no permit is issued.	Kim O'Cain	Santa Monica
				Any observed impact to available graywater due to use of high efficiency washers?	Liz Mendelson	SDCWA
2	November 2009, the CBSC voted unanimously to approve the California Dual Plumbing Code	Establishes statewide standards for potable and recycled systems in CII	The standards were published in the 2010 CPC, Chapter 16A, Part II. They became effective January 2011. The dual plumbing code section was not revised when the California Building Standards Commission adopted the 2013 California Plumbing Code.			
3	SB 518 (Ch. 622, 2010)	Requires that CBSC, as part of triennial review, adopt building standards for graywater in nonresidential occupancies; terminated DWR's authority to adopt standards for nonresidential	DWR no longer has authority on graywater standards for residential or nonresidential			
4	AB 849 (Ch. 577, 2011)	Removed authority of a city, county, or local agency to prohibit use of graywater. They may only adopt standards more restrictive than state requirements.	An ordinance must include local conditions that necessitate more restrictive standards			
5	Governor Brown's Executive Order B-29-15, issued on April 1, 2015	Among other provisions, directed enforcement of statewide mandatory urban water reductions by 25% compared with 2013 use, and directs CA Energy Commission, jointly with DWR and SWRCB, to implement a Water Energy Technology (WET) program to deploy innovative water management technologies.	"Integrated on-site reuse systems" mentioned in executive order, point #17, http://gov.ca.gov/docs/4.1.15_Executive_Order.pdf			
6	Education / Acceptance	The water industry has been slow to embrace the use of greywater due to lack of information and education.	Partner with cities and agencies that have implemented greywater workshops and projects to better understand.		Leighanne Kirk	West Basin
7	Education	Understanding of simple Laundry to Landsape (L2L) systems that are legal and easy to create.	Understant the various simple to complex systems and permit requirements.		Leighanne Kirk	West Basin

Number	Category/Topic (e.g., short-term, long-term, regional, local, etc.)	Details	Notes	Comments	Commentor	Agency
--------	--	---------	-------	----------	-----------	--------

Lessons Learned (what works and what doesn't)

Number	Category/Topic (e.g., new programs, legislation, regulations, permitting, technologies, costs, planning, operations, etc.)	Details	Notes	Comments	Commentor	C
1	Permitting	Must streamline permitting with city, water agency, county health; keep low permitting fees or waive fees			Kim O'Cain	Santa Monica
2	Maintenance	Maintenance was the reason that 5 system were removed/abandoned within 1-2 years after installation. It must be addressed prior to installation			Kim O'Cain	Santa Monica
3	Multi-family systems	CSM is looking at requiring graywater for certain size mixed use projects but little to no information is easily available about what's been done in the US			Kim O'Cain	Santa Monica
4						
5						

Recommendations

Number	Category/Topic (e.g., short-term, long-term, regional, local, etc.)	Details	Notes	Comments	Commentor	Agency
1	Permitting	Waive fees; use City of LA model for plan check			Kim O'Cain	Santa Monica
2	Mixed-Use	Create clearing house of projects - successes and failures			Kim O'Cain	Santa Monica

Number	Category/Topic (e.g., short-term, long-term, regional, local, etc.)	Details	Notes	Comments	Commentor	Agency
3	New Program	<p>West Basin is currently researching the ability to provide free Greywater Workshops in its service area.</p> <p>Educate public on simple system which can be constructed without permit. Provide rebates until market transforms or legislation in place for simple system.</p> <p>This drought will drive interest in grey water -- which could further diminish wastewater flows. In areas that are not using RW, this may be a good thing...but it is a challenge for those of us that would prefer indoor wastewater continue to flow to the treatment plant.</p>			Leighanne Kirk	West Basin
4	Marketing				Nina Jazmadarian	Foothill
5	Regional RW				Jason Pivovaroff	IEUA

Other (additional issue paper topics)

Number	Category/Topic	Details	Notes	Comments	Commentor	Agency
1				There have been lots of programs from city/county/water agencies to promote GW. I have a presentation I gave at the Localizing California's Waters conference last year that lists them all. I can send it to you if you'd like.	Kim O'Cain	Santa Monica
2						
3						
4						
5						

FirstName	LastName	Agency
Nina	Jazmadarian	Foothill
Laura	Allen	Greywater Action
Jason	Pivovaroff	IEUA
Kim	O'Cain	Santa Monica
Liz	Mendelson	SDCWA
Leighanne	Kirk	West Basin
Harvey	De La Torre	MWDOC