**RESNET® SDC 1100 and Task Group Combined Meeting**

**May 27, 2025; 3-4 pm EST**

**Via Microsoft Teams**

**[Click link to join](https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZjhhZmM4NDMtOGI3Mi00ZjczLTlhYWMtZDk5NDAwYzQ4OTAy%40thread.v2/0?context=%7b%22Tid%22%3a%22e5f23624-9be3-4926-98df-49740f9dfb77%22%2c%22Oid%22%3a%229ec8eb7d-71a2-4e8f-a6b7-b6739b4a7e3d%22%7d)**

Meeting ID: 282 416 576 133

Passcode: fh2P7NT7

[MEETING RECORDING](https://www.resnet.us/wp-content/uploads/SDC-1100-Task-Group-RESNET_ICC-Std.-850-20250325_150224-Meeting-Recording-1.mp4)

Present: Andrew Morris, Jacob Atalla, Dave Walls, Gary Klein, Holly Cannon, Kent Sovocool, Paul Kinter, Philip Fairey, Jonah Schein, Ed Osann

Staff: Paulette McGhie, Ryan Meres, Noah Kibbe, Katie Stewart

Meeting started at 3:03 PM ET

**MEETING MINUTES**

1. Call to Order
2. Roll Call (Ryan Meres)
3. **Alternative Water Sources –** A presentation during the previous call provided an informative overview of alternative water sources such as graywater and rainwater, exploring potential new uses and expanding the underlying thought process of the proposal. A draft outlining the incorporation of these sources into new contexts was shared via email last Friday, ahead of today’s meeting.
   1. **Jonah Schein’s recap continuing the discussion on rainwater:** The demand for alternative water sources, particularly graywater and rainwater, for outdoor use was discussed. A key takeaway emphasized the importance of assessing water demand not just on average daily usage, but by accounting for seasonal patterns to understand how these sources can address peak demand.
      1. A proposal was presented that connects annual outdoor water usage to daily or monthly estimates using growing degree days. This model, based on Flume data from 15 Metropolitan Statistical Areas (MSAs), effectively reflects the seasonal distribution of outdoor water use.
      2. The task group responded positively to the proposed concept of presenting alternative water sources and their potential uses in a table format. This high-level overview avoids delving into technical details, which will be addressed separately by Paul. The draft is still in progress, and the table format was noted as an effective way to organize the information.
      3. The draft proposes a default catchment credit of 85% for rainwater, with adjustments to 75% or 90% for specific roof types or geographic areas, depending on factors such as rainfall frequency and roof type. The sizing guidelines are based on city and state rainfall averages and include recommendations for storage options (portable vs. non-portable) in line with these averages.
   2. **Greywater and Rainwater Concept** – A question was raised regarding the integration of graywater and rainwater systems, specifically whether both systems are typically kept separate or if there are instances where they are combined. It was noted that systems fed by both sources are uncommon in residential or commercial buildings.
      1. A suggestion was made to explore this further as a potential future addendum, and the floor was opened for comments or questions regarding the regulation or combination of these systems.
4. **Community-Wide Indirect Reuse:** Kent provides additional context on community-wide indirect reuse systems, where water from all sources is cleaned and reused at the community level. In such areas, water conservation efforts like graywater recycling may not directly apply, as water is treated and returned to the community system. It was suggested that future provisions should be flexible enough to accommodate these community-based systems.
   1. **Builder Qualifications:** Kent raised the issue that builders in areas with indirect reuse systems may encounter challenges qualifying under new provisions if their systems do not align with the direct reuse model. A proposal was made to consider whether homes in these areas should connect to indirect reuse systems in the future.
   2. **Indirect Reuse and Community Costs:** Kent also noted that while indirect reuse systems come with community-level costs, these costs are embedded in the fees paid by both the wastewater provider and builders, like how graywater systems are funded by customers.
5. **Technological and Geographical Challenges:** Kent highlighted the technological and geographical challenges associated with implementing graywater systems at a large scale. Regions with limited funding or infrastructure face obstacles, particularly when large-scale wastewater treatment is involved. Despite these challenges, it was expressed that graywater systems are expected to become more common in future developments, though adoption will be gradual.
6. **Potential Credit Mechanism for Indirect Reuse:** Philip Fairey proposed the idea that if indirect reuse becomes feasible at the community level, a discount could be applied to the volume of reused water from the potable supply, both in the reference and rated cases. This would potentially justify a small credit for homes connected to such systems.
7. **Two-Tiered Credit Concept Based on Regional Infrastructure:** Kent expressed interest in the concept of a two-tiered credit system and suggested that future solutions like dual plumbing or decentralized treatment (e.g., HOA-level treatment) could warrant a credit in regions where indirect reuse or decentralized systems are feasible. While these systems may not be widespread at present, it was emphasized that they should be considered part of the long-term strategy for water reuse, and homes in such areas should be incentivized accordingly.
8. **Preparing Homes for Future Infrastructure:** Gary suggested that future developments, particularly in areas like the Valley, could be designed with dual plumbing infrastructure to prepare homes for future local treatment and reuse systems. Incentives for homes to be built with the capacity to connect to these systems were also proposed. Kent agreed, noting that while specifics are uncertain, this direction appears plausible, and future developments may include dual plumbing or separate meters for irrigation and non-irrigation water usage.
9. **Sampling**
   1. Postponed to next meeting
10. **2030 Standard and Software Updates:** The team discussed updates for the upcoming 5-year cycle, with a focus on multifamily calculations and the impact of graywater systems.
    1. Philip updated the calculation worksheet to incorporate multifamily scenarios and the impact of graywater systems in the new 2025 version of Standard 850.
    2. Implementation guidelines for HERSH2O® software are being revised. Ekotrope has now become an accredited HERSH2O software provider, and updates regarding protocols for using the latest software versions are in progress. The new language would be to ensure raters use the most recent release is in draft form and will be integrated into the guidelines.
11. **Addendum on Standard 850 and Credit Clarification:** The committee discussed the language concerning the 80% use of collected graywater. Currently, the standard does not fully clarify whether this applies to toilet flushes or the collection volume itself. A suggestion was made to submit an interpretation request to clarify how the 80% rule should apply in various contexts, such as subsurface irrigation or other outdoor uses.
12. **New business**
    1. No new business was addressed.
13. **Next meeting: June 24th, 2025, 3:00 PM Eastern Time.**

Meeting adjourned at 4:00 PM ET

**Alternative Water Sources Discussion**

***Current PDS-01/02 Language for Gray Water:***

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Description automatically generated**

***Rainwater capture has been discussed in the past, but no formal action taken.***

Suggestions for rainwater data fields:

* Roof size (collection area)
* Storage size (cistern)
* Rainfall (monthly, annual, seasonal?)
  + Do we need a data source or is it up to the system designer?
  + TMY data includes rainfall
    - Can be used to determine rainfall and “Growing Degree Days”
* End use (potable, irrigation, toilets)
  + Need a way to indicate the end use for rainwater
  + Impact on score is the amount of potable/city water offset
* Growing season (NOAA/ATLAS weather data)
  + May need changes to irrigation calcs
  + When is water available and when is it needed
  + Growing Degree Days (base @ 50F)

Rainwater catchment system standards: ICC-805 and ARCSA/ASPE/ANSI 63.

\*Blackwater (Marcus Linger, Gary’s contact)

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| --- | --- | --- | --- | --- |
| Type of Alternative Water | | Offset Calculation | | |
| Source | Use | Source | Effective Yield | Offset |
| Gray water collected from plumbing products and appliances | Flushing toilets | Calculated as the sum of all end-use sources (e.g., showers, lavatory faucets, clothes washers) for the rated home. If not all potential sources of a similar fixture type feed the system, the water for that end use should be equally divided across the number of fixture types present in the Rated Home (e.g., if one of two showers are connected to the gray water system, only half of daily shower water use would be eligible to be counted as gray water) | 80% | Total of source times the effective yield, applied to (but not to exceed toiletgpd) |
| Rainwater collected from the lot area | Irrigation  (Could consider indoor uses) | Calculated as the sum, in gallons from all rainwater collection surfaces, not to exceed the rainwater storage capacity.  Square feet collection area X Annual rainfall in inches X 0.6 (conversion factor) | 80% | Gallons of rainwater collected times the effective yield, not to exceed annual outdoor water use, determined by Section 4.6.1. |
| R.O. |  |  |  |  |
| Condensate |  |  |  |  |
| Gray Water | Irrigation |  |  |  |