Diepsloot South Africa March 2016

14 toilets replaced in 7 days = access for 1288 people & 56,000lt/day water saved

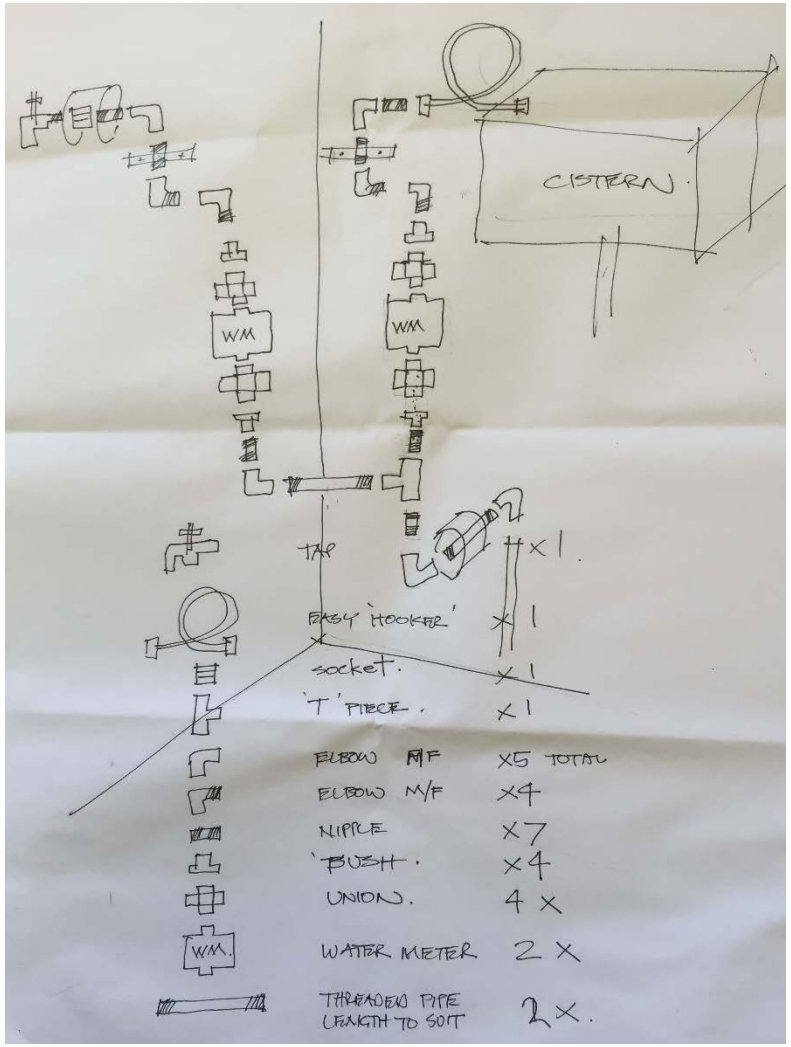
Report on the design & fitout of 14 new toilets, including water collection points, hand washing and clothes washing points

WASSUP - Sticky Situations - World Skills ZA

IAPMO – Healthabitat - Healthabitat O/S

Part 1 – Fitout and installation of 14 new modular toilets
(i) Design & fitout of the new modular toilet units

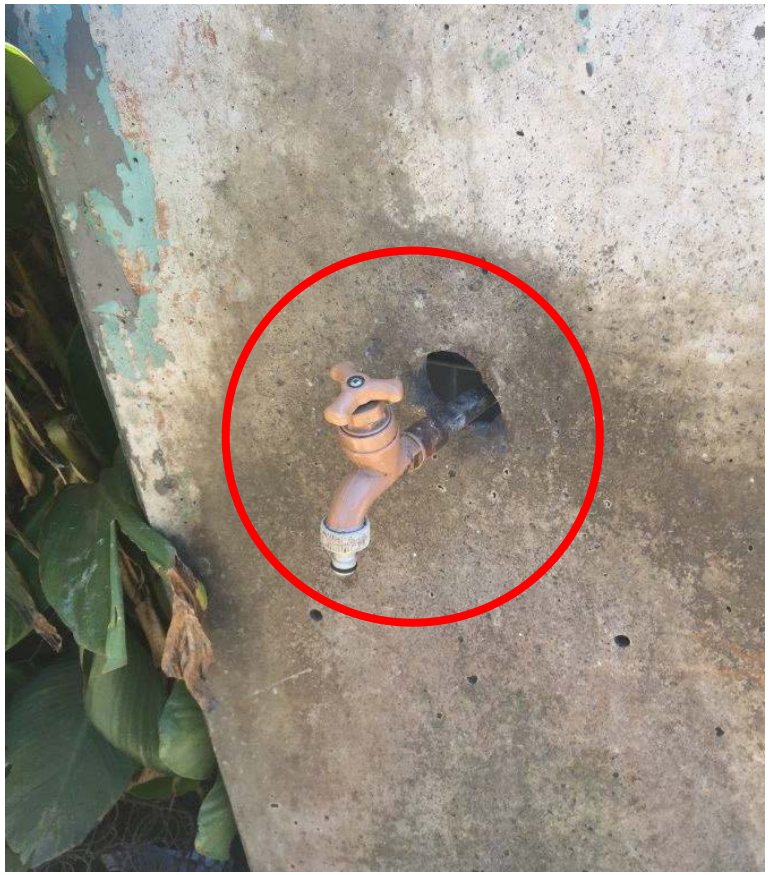
14 new pre-cast toilet cubicles pre-ordered by Sticky Situations, delivered to yard and ready for fitout



The water supply pipework and metering layout is workshopped and agreed at start of day 1, with a meter on the tap and one on the cistern – for data logging water and frequency of toilet usage.

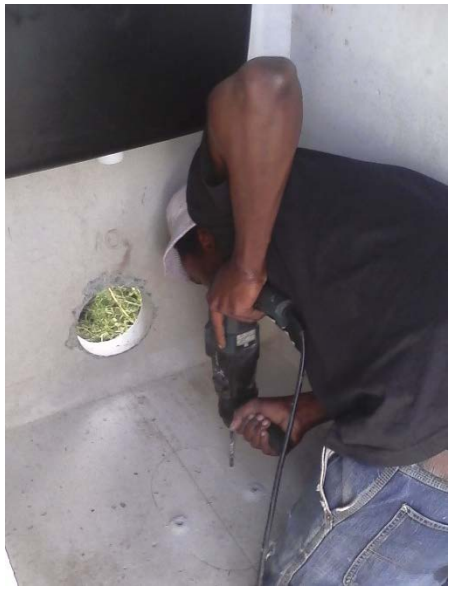
A sample is then made for the first toilet, to be used as a prototype for the remaining toilets.

Units are assembled in the yard in Diepsloot for greater quality control



Loose pipework on existing toilets was a major cause of water leaks, as movement at the tap caused movement and failure of rigid junctions internally in the toilet

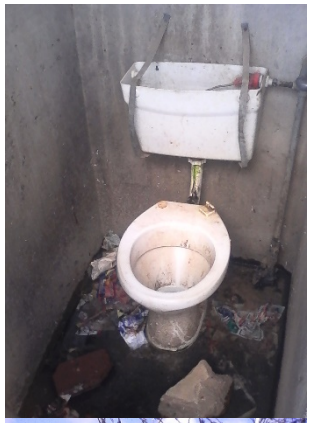
Pipework on the new 14 toilets is securely clipped / bracketed to the wall to prevent movement and leaks



As the materials arrive the teams fit the toilet pans, troughs, cisterns and assembled pipework

The completed toilets are loaded onto the crane truck ready for delivery

(ii) Identification, disconnection & removal of old broken toilets



Old non-functioning toilets were identified by WASSUP prior to the teams arriving.
These toilets were disconnected by the teams in preparation for their removal.

The 14 old toilets were lifted and removed.

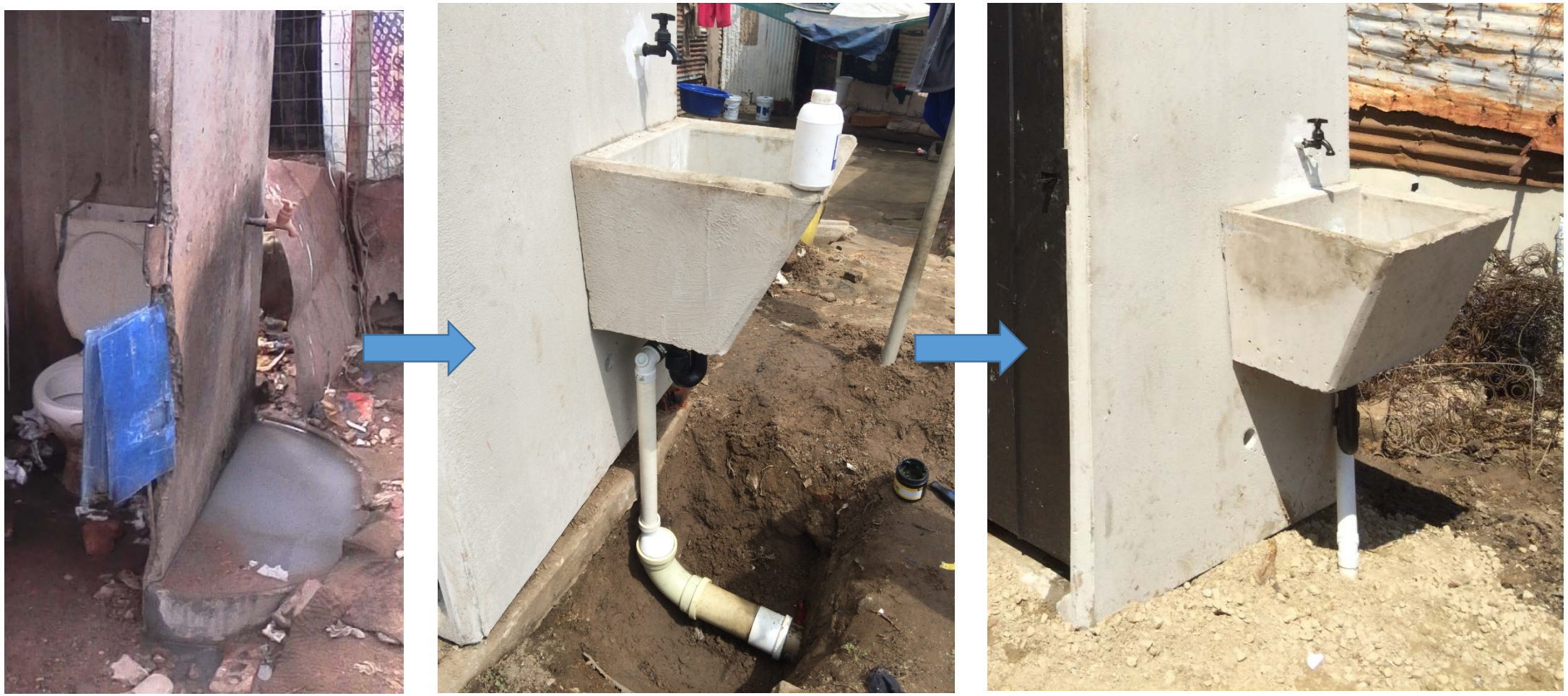
The units were trucked to the yard in preparation for the IAPMO Community Plumbing Challenge (CPC) to be held in July 2016 in Diepsloot.

(iii) site preparation

The sites were prepared for the delivery of the new toilets.
Sites that were too low, and prone to flooding were raised on blocks and backfilled.

(iv) Installing and connecting the new toilets on site

The new toilets are craned to site and connected by WASSUP and the South Africa World Skills Plumbers.

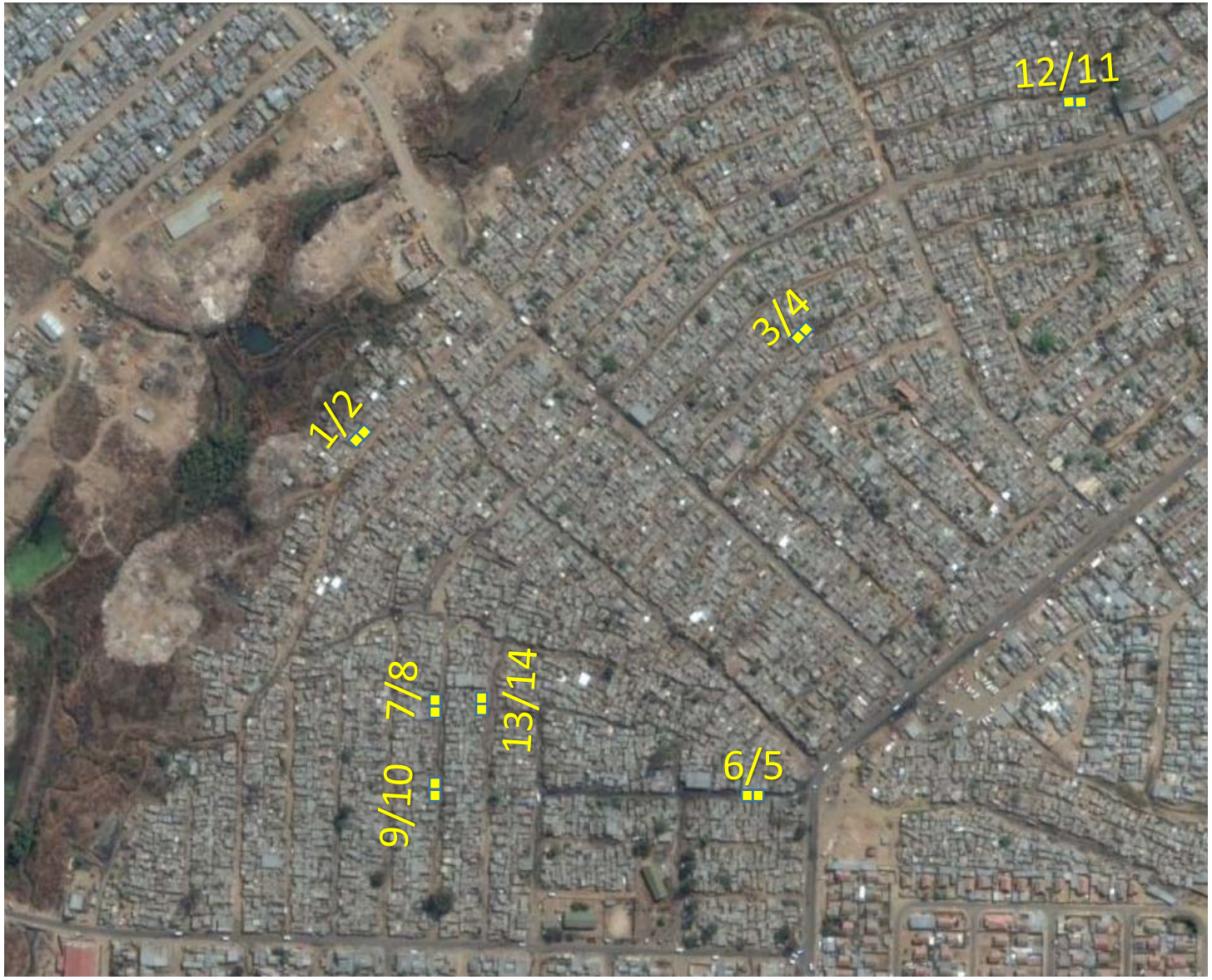


A new concrete trough is trialed, thought to be more robust than the previous plastic troughs trialed.

An alternate drainage system is also trialed on 9 of the 14 units for connecting the grey water waste from the trough – removing the failing trapped gully wastes that are constantly blocked with gravel and silt, and connecting the trapped trough wastes directly into the mains sewer.

The completed toilets are connected, and tested for leaks

On completion gravel is compacted around the edges of the toilets to improve access, and ensure storm water flows away from the toilets



Improved access to facilities

Based on population figures from the mapping conducted in 2015 an average of 92 people rely on each toilet in this area of Diepsloot.
Given none of the toilets replaced during this work period were functioning, this 7 day project directly resulted in;

1288 people who now access to a functioning toilet / water / drainage point

Water Savings

Water use data from 2014 showed the water lost due to leaks in non-upgraded toilets averaged 4000lt/day.
If these figures are applied to the 14 toilets replaced during this stage it means an additional;

56,000 lt / day of potable water is now being saved

Part 2 – Future Work for 2016

(i) Johannesburg Water Toilet Upgrade Contract

Congratulations to WASSUP who have secured their first major toilet upgrade project from Johannesburg Water – to upgrade 72 additional toilets in Extension 1 / Diepsloot. Congratulations also to Johannesburg Water who have responded to the public health challenge faced by the residents of Diepsloot!

This contract has been awarded based on the hard grinding work fixing toilets in this area over many years, and on the results of the hard data collected by WASSUP proving the water savings possible for Johannesburg water.

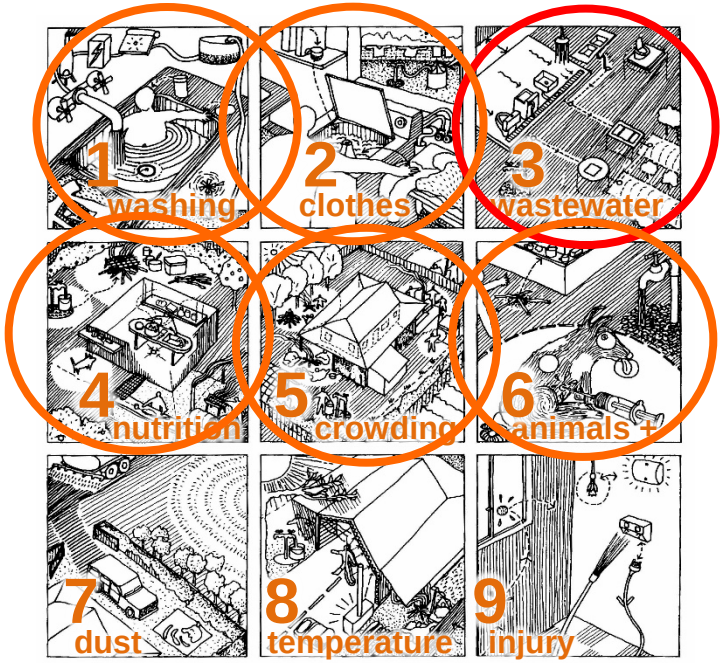
WASSUP and Sticky Situations are now in the process of ensuring the parts of the work that have the biggest impact on improving health - through improved access to 6 of the 9 Healthabitat Healthy Living Practices (HLP's) are prioritised – which in the process will produce a massive reduction in water loss for Johannesburg Water.

Given inevitable cost constraints, the team discussed a plan for rolling out the upgrade project to achieve the best possible health and water savings outcomes;

- begin with small sample of 6 toilets
- establish full scope of works to be carried out on each unit (subject to variation on condition) so that nothing left out just to achieve an overall objective i.e. 72 toilets for $'s available
- agreed specification and detail for works, incorporating lessons learnt from March 2016 to add to the knowledge base from earlier projects
- record costs etc. associated with sample: materials + labour
- seek approval for rolling out the agreed scope of work for the remaining toilets

The hard work now begins in ensuring Johannesburg Water fund the cyclical on-going maintenance of these upgraded toilets after the upgrade contract is complete – to ensure the massive improvements in health and water savings are maintained.

The 9 Healthy Living Practices



(ii) CPC Event in July 2016

Planning continued on the ground during March for the IAPMO Community Plumbing Challenge (CPFC) to be held in July 2016 in Diepsloot.

As per previous CPC events, the challenge will result in direct health improvements for the people of Diepsloot – through the upgrading and installation of an additional 8 – 10 toilets.

WASSUP will be watching very closely and assessing the fresh ideas brought in from across the world to Diepsloot from the visiting teams – looking for successful initiatives to incorporate into the design, upgrade and maintenance of toilets in Diepsloot for years to come.

Thanks to the team!

WASSUP: Lerato Monama, Obed Kekae, Junitha, Jack Molokomme & Mr Matebule
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IAPMO: Sean Kearney and Grant Stewart
Healthabitat & Healthabitat O/S: Adrian Welke & David Donald