

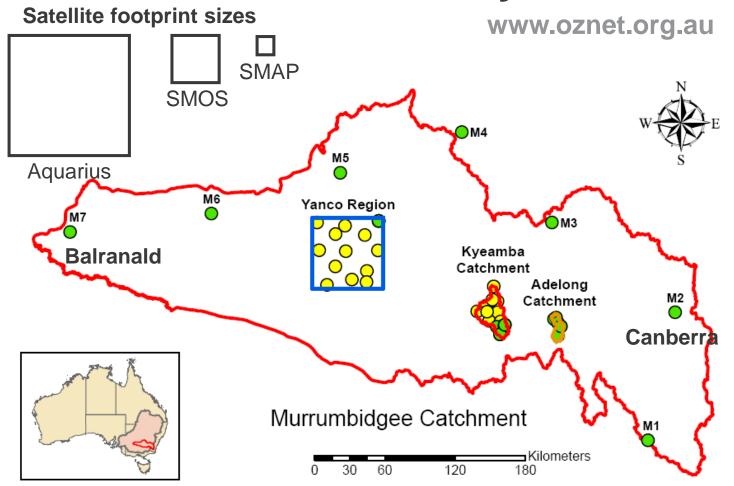
#### **Engineering**

#### Australian Network Status and Future Plans

Jeffrey Walker, Xiaoling Wu, Nan Ye, Mei-Sun Yee



### The OzNet observatory

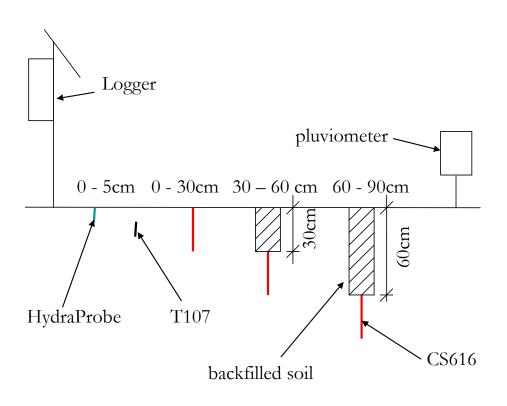


Smith, Walker, Western, Young, Ellett, Pipunic, Grayson, Siriwidena, Chiew, and Richter, 2012. The Murrumbidgee Soil Moisture Monitoring Network Data Set. Water Resources Research, 48, W07701



September 2015 | 2

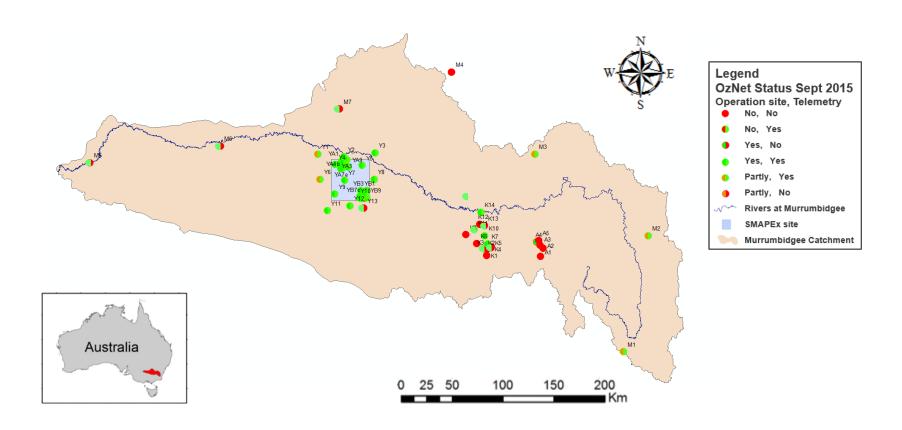
# **Typical monitoring site**





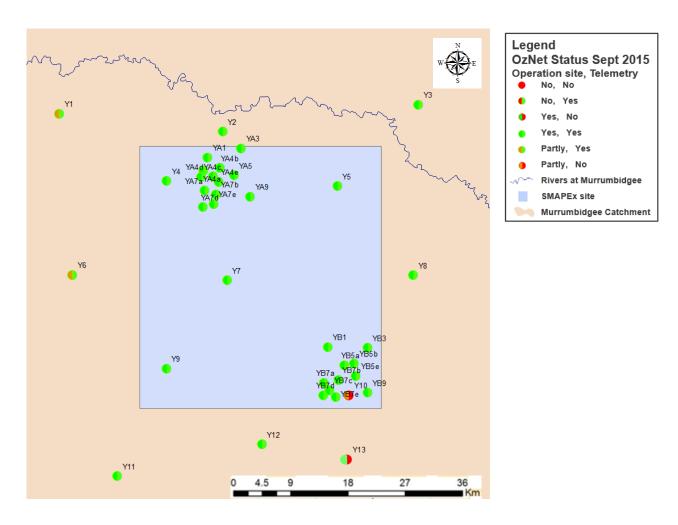


# OzNet Status – Aug 2015



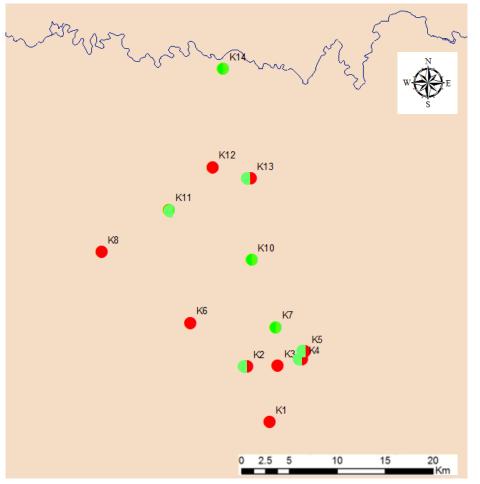


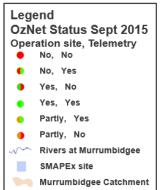
# Yanco Status – Aug 2015





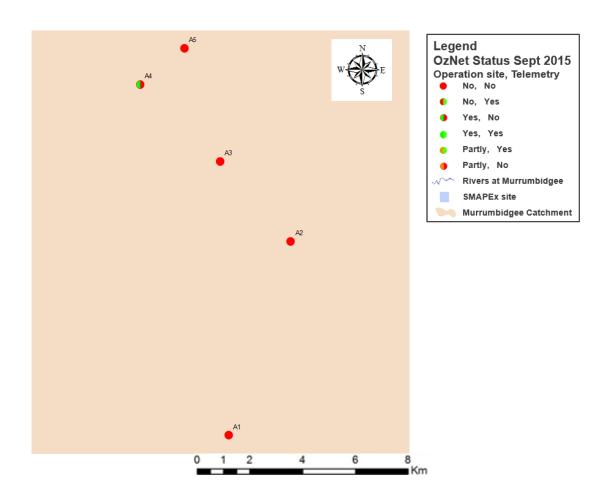
# Kyeamba Status – Aug 2015







# Adelong Status – Aug 2015





#### **Data Status Since Jan 2015**

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Y1								
Y2								
Y3								
Y4								
Y5								
Y6								
Y7								
Y8								
Y9								
Y10								
Y11								
Y12								
Y13								
YA1								
YA3								
YA4a								
YA4b								
YA4c								
YA4d								
YA4e								
YA5								
YA7a								
YA7b								
YA7d								
YA7e								
YA9								



All data missing Data available Data incomplete or not available - Part or all of the data pending of manual download of the station



#### **Data Status Since Jan 2015**

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
YB1								
YB3								
YB5a								
YB5b								
YB5e								
YB7a								
YB7b/YB5d								
YB7c								
YB7d								
YB7e								
YB9								
M1								
M2								
M3								
M4								
M5								
M6								
M7								



All data missing

Data available

Data incomplete or not available - Part or all of the data pending of manual download of the station

### **Data Status Since Jan 2015**

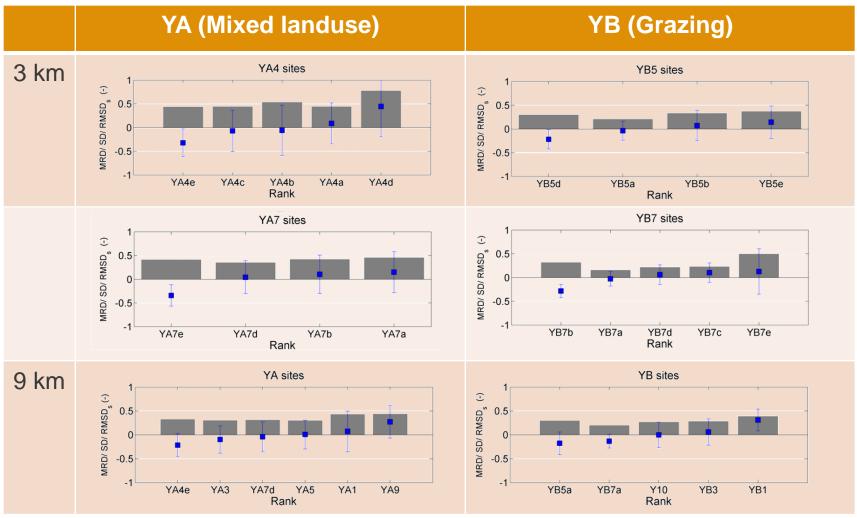
	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
K1								
K2								
К3								
K4								
K5								
К6								
K7								
К8								
K10								
K11								
K12								
K13								
K14								
A1								
A2								
А3								
A4								
A5								



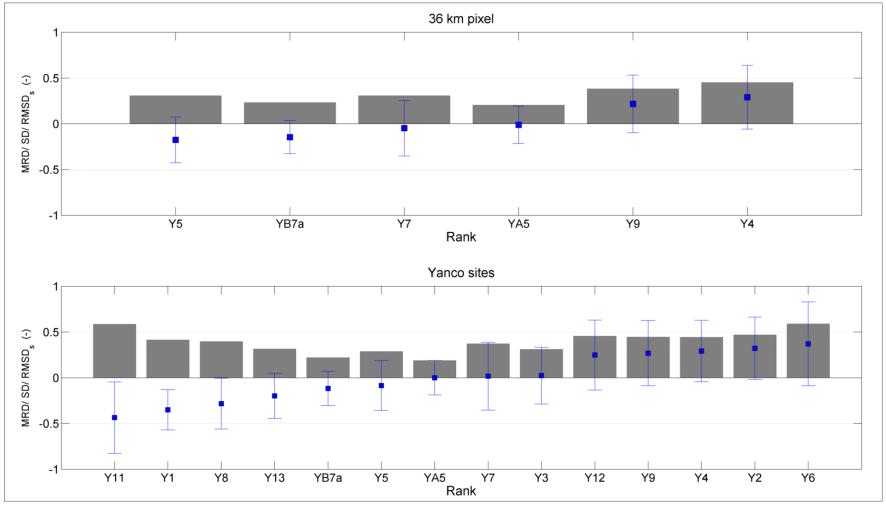
All data missing Data available

Data incomplete or not available - Part or all of the data pending of manual download of the station

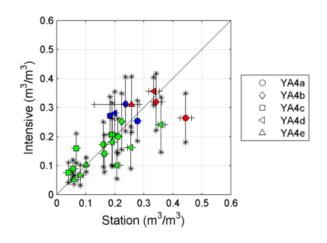
## Regional scale

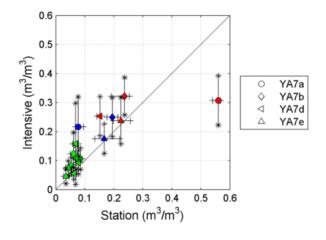


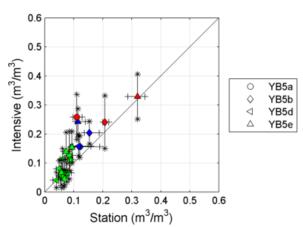
## Regional scale

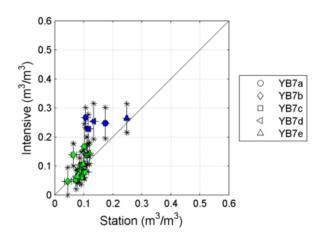


# Point to pixel (1 km)



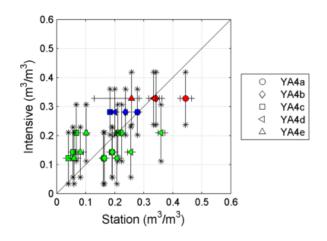


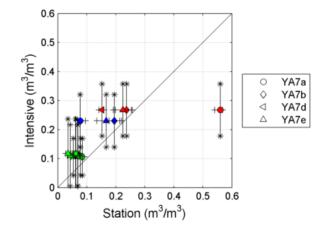


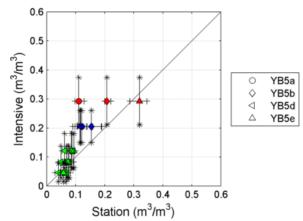


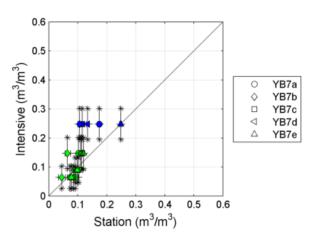


# Point to pixel (3 km)



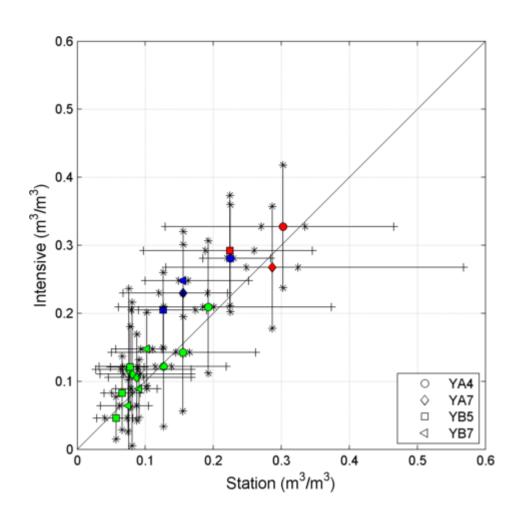








# Average of all stations to pixel



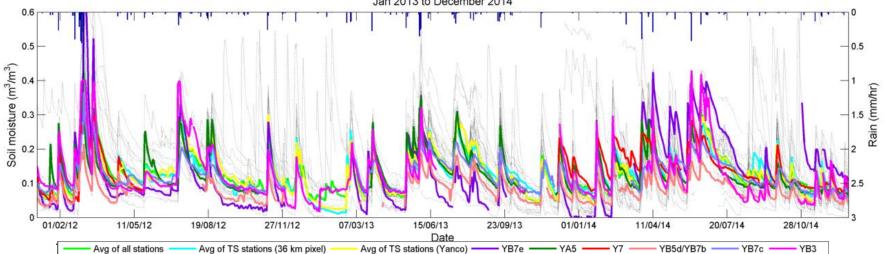


**Summary of analysis** 

Pixel	Focus Area	TS (MRD)	TS (SDMRD)	TS (RMSE)	Point to pixel	Recommendations
3 km	YA4	YA4b	YA4c	YA4e	YA4b	Weighting
	YA7	YA7d	YA7e	YA7d	YA7b	Weighting
	YB5	YB5a	YB5a	YB5a	YB5e	YB5e
	YB7	YB7a	YB7b	YB7a	YB7e	YB7e
9 km	YA	YA1 (YA1)	YA7e (YA7e)	YA5 (YA5)	-	YA5
	YB	Y10 (YB7d)	YB7b (YB7a)	YB7a (YB7c)	-	YB7a
36 km	Υ	Y7 (YA4c)	YB5d/YB7b (YB5d/YB7b)	YA5 (YB7c)	YB7e, YA5	YA5

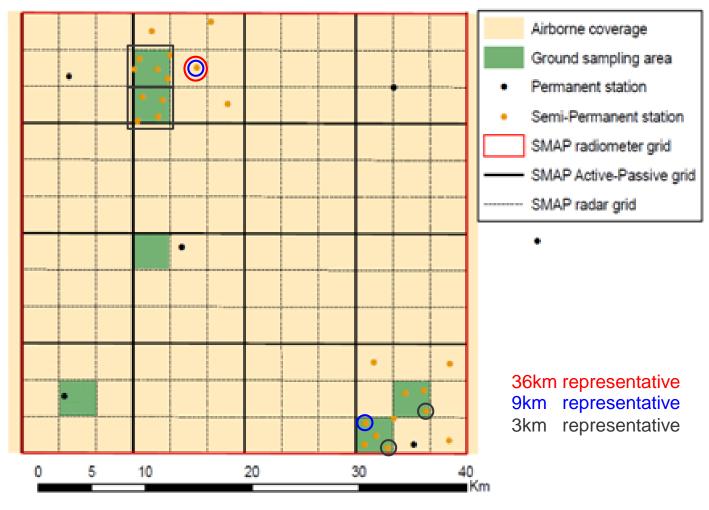
Stations in brackets are representative stations when analysis was carried out without eliminating stations from one pixel scale to another.

Jan 2013 to December 2014





### Representative stations





# Plans for next 3, 5, ...yrs

- We have (limited) funding until end of 2016
  - Half a person
  - \$15k /yr for travel costs AND hardware replacements
- Yanco site will continue to be the priority
  - Followed by Kyeamba
  - Murrumbidgee wide
  - Adelong
- At end of 2016 we will likely have to close all stations except for Yanco