

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



WESTERN MUNICIPAL WATER DISTRICT



Water Smart Innovations 2011
Landscape Evaluations: There's an App for that!

LANDSCAPE EVALUATIONS... THERE'S AN iPad APP FOR THAT!



Tim Barr

Western Municipal Water District

Maureen Erbeznik

Maureen Erbeznik & Associates



Securing Your Water Supply

TRADITIONAL IRRIGATION EVALUATIONS

- Evaluation scheduled
- On-site evaluation conducted
- Notes taken manually
- Conditions of audit environment not ideal for paperwork



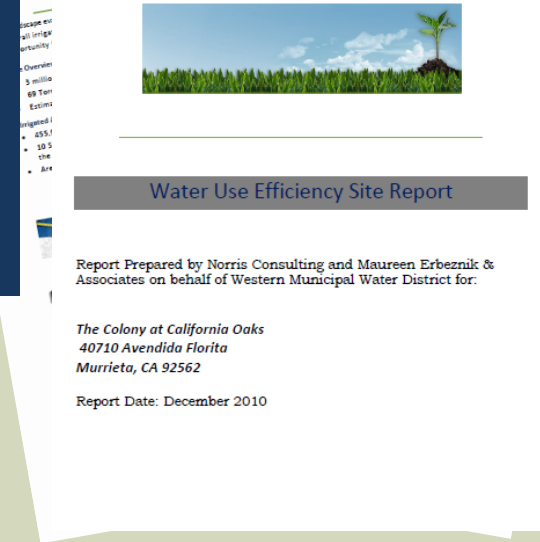
TRADITIONAL IRRIGATION EVALUATIONS



- Calculations done manually
- Not uniform
- Higher margin for error
- Manual report generation



Customer subject to long wait time for data/results



TRADITIONAL IRRIGATION EVALUATIONS

- Limited visuals to help customers understand problems and solutions
- Actual usage compared against recommended usage (water budget) is not typically used to educate customers



IRRIGATION EVALUATIONS: THE NEXT GENERATION



- iPad app created by Western
- Automated calculation process
- Instant report generation
- Emailed to customer on the spot



IRRIGATION EVALUATIONS: THE NEXT GENERATION



- Same data set is collected at every site with built in controls (also provides for electronic records of site data and results)
- Highly visual & interactive process
- Water budget is incorporated into the report and with visual customer education

HOW THE NEXT GENERATION OF EVALUATION WORKS



- Online interface for creating evaluation requests
- Master Scheduler signs on to admin website
 - Customer evaluation request created
 - Customer consumption history entered
 - Evaluation requests assigned to auditors

HOW IT WORKS: WEBSITE INTERFACE



Welcome Maureen Erbeznik (Admin),

Evaluator

Add User

Customer Request

Profile

Logout

Add Request

All

Go

List of Request

	From	Address	Site Type	Email Id	Phone	Date	Status	
1	Dexter Morgan Homeowner	8939 Via Solitude, 92336	Single Family	dexter@showtime.com	3335454	2011-07-14 21:07:10 PM	Assigned	View Details
2	William Adama BSG Inc.	16452 Massena, Stre, 92642			9519511	2011-07-14 21:03:14 PM	Assigned	View Details
3	abc abc abc	111 11111, 1111 dvvjknvvnkv, 123			111	2011-06-29 06:09:36 AM	Scheduled	View Details
4	Denzil Worthlin Homeowner	353 Buchanan Drive, 92506	Single Family	home@owner.com	9518483232	2011-06-21 20:36:53 PM	Processed	View Details
5	Dean Johnson Business Owner	262 Bathurst Road, 92504	Commercial	Deab@rentacenter.com	9518883265	2011-06-21 20:19:46 PM	Processed	View Details
6	Danya Johnson Homeowner	3636 Brentwood Drive, 92501	Single Family	Johnson@hotmail.com	9517792654	2011-06-21 20:16:17 PM	Processed	View Details
7	Richard Fischer Homeowner	5068 West, Pacific Boulevard, 92506	Single Family	Fischer@UCR.edu	9516568848	2011-06-21 20:11:19 PM	Processed	View Details

Add Request

HOW IT WORKS: WEBSITE INTERFACE



Welcome Maureen Erbeznik (Admin),

- [Evaluator](#)
- [Add User](#)
- [Customer Request](#)
- [Profile](#)
- [Logout](#)

Add Request - General Info

- General Info**
- Site Info
- Meter Info
- Assign Req.

First Name, Middle Name, last Name :

Company Name :

Email, Phone :

Street Number, Street Number Suffix :

Street Name Prefix, Street Name, Street Name Suffix :

Apartment or Suite, Zip Code :

Account Number :

Assessor Parcel Number :

HOW IT WORKS: WEBSITE INTERFACE



Welcome Maureen Erbeznik (Admin),

[Evaluator](#)

[Add User](#)

[Customer Request](#)

[Profile](#)

[Logout](#)

Add Request - Site Info

✔ Record Added Successfully

[General Info](#)

[Site Info](#)

[Meter Info](#)

[Assign Rec](#)

Site Type :

Single Family

Nos. of Occupants :

0

[Previous](#)

[Next](#)

NEXT

[Take me back to Home](#)

August 1, 2011, 3:24 pm

www.westernwaterevaluations.com

*Single family, Multi Family
Commercial, Industrial, etc.*

HOW IT WORKS: WEBSITE INTERFACE



Welcome Maureen Erbeznik (Admin),

[Evaluator](#) [Add User](#) [Customer Request](#) [Profile](#) [Logout](#)

Add Request - Meter Info

✔ Record Added Successfully

[General Info](#) [Site Info](#) [Meter Info](#) [Assign Req](#)

Add Meter

Meter Number

submit

Aug-2010	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>	Feb-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>
Sep-2010	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>	Mar-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>
Oct-2010	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>	Apr-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>
Nov-2010	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>	May-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>
Dec-2010	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>	Jun-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>
Jan-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>	Jul-2011	<input type="text" value="Meter Reading"/>	<input type="text" value="In gallons"/>

[Save](#) [Save & Assign](#)

[Take me back to Home](#)

August 1, 2011, 3:26 pm

www.westernwaterevaluations.com

HOW IT WORKS: WEBSITE INTERFACE



Welcome Maureen Erbeznik (Admin)

Evaluator Add User

Edit Request - Re-Assign Request

Record Added Successfully

General Info Site Info Meter Info Assign Req

Assign to an evaluator based upon their calendar

Date: 01 August 2011

Available Evaluators

- Harold Patel
- tim Norris
- Tim Barr
- Bill Johnson
- Gumby Peterson
- Chetan Detroja
- Test Evaluator Last Name

Occupied Evaluators

Assign Cancel

< July 2011		August 2011					September 2011 >	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
	01	02	03	04	05	06		
07	08	09	10	11	12	13		
14	15	16	17	18	19	20		
21	22	23	24	25	26	27		
28	29	30	31					

[Take me back to Home](#)

August 1, 2011, 3:27 pm

www.westernwaterevaluations.com

HOW IT WORKS

- Evaluator signs on to website to see their assigned audits.
- Can view customer information entered by Master Scheduler
- Evaluator enters ET & Microzone data entered upon creation

HOW IT WORKS: WEBSITE INTERFACE



Welcome Bill Johnson (Evaluator),

[Customer Request](#)






[View Schedule](#)

[Profile](#)

[Logout](#)

All

List of Request

	From	Address	Site Type	Email Id	Phone	Date	Status	
1	Dexter Morgan Homeowner	8939 Via , Solitude , 92336	Single Family	dexter@showtime.com	3335454	2011-07-14 21:07:10 PM	Assigned	 View Details
2	Denzil Worthlin Homeowner	353 , Buchanan Drive , 92506	Single Family	home@owner.com	9518483232	2011-06-21 20:36:53 PM	Processed	 View Details
3	Dean Johnson Business Owner	262 , Bathurst Road , 92504	Commercial	Deab@rentacenter.com	9518883265	2011-06-21 20:19:46 PM	Processed	 View Details
							Scheduled	 View Details
							Processed	 View Details

E Can view details before calling to schedule with customer

Prev **1** Next

[Take me back to Home](#)

August 1, 2011, 3:50 pm

www.westernwaterevaluations.com

HOW IT WORKS: WEBSITE INTERFACE



Welcome Bill Johnson (Evaluator),

[Customer Request](#)

[View Schedule](#)

[Profile](#)

[Logout](#)

List of Request

	From
1	Dexter Morgan Homeowner
2	Denzil Worthlin Homeowner
3	Dean Johnson Business Owner
4	fefe sdfd dgdgd
5	Grace Anne n/a

[Take me back to H](#)

[General Info](#) [Site Info](#) [Meter Info](#)

Meter

Meter 1 (Meter Number : 8232B)

Consumption Data

Jul-2010: 72 HCF/53856 gallons	Jan-2011: 57 HCF/42636 gallons
Aug-2010: 66 HCF/49368 gallons	Feb-2011: 51 HCF/38148 gallons
Sep-2010: 66 HCF/49368 gallons	Mar-2011: 57 HCF/42636 gallons
Oct-2010: 57 HCF/42636 gallons	Apr-2011: 54 HCF/40392 gallons
Nov-2010: 48 HCF/35904 gallons	May-2011: 42 HCF/31416 gallons
Dec-2010: 66 HCF/49368	Jun-2011: 60 HCF/44880

[View Request Detail](#)

HOW IT WORKS: WEBSITE INTERFACE



Welcome Bill Johnson (Evaluator),






Customer Request

View Schedule

Profile

Logout

All

List of Request							
	From	Address	Site Type	Email Id	Phone	Date	Status
1	Dexter Morgan Homeowner	8939 Via , Solitude , 92336	Single Family	dexter@showtime.com	3335454	2011-07-14 21:07:10 PM	Assigned  View Details
2	Denzil Worthlin Homeowner	353 , Buchanan Drive , 92506	Single Family	home@owner.com	9518483232	2011-06-21 20:36:53 PM	Processed  View Details
3	Dean Johnson Business	262 Bathurst Road	Commercial	Deah@rentacenter.com	9518883265	2011-06-21 20:19:46 PM	Processed  View Details
4						2011-06-21 09:58:18 AM	Scheduled  View Details
5	Grace Anne n/a	9564 North, Bellinger Drive , 92646	Single Family	grace@wmwd.com	9518588888	2011-06-12 16:05:12 PM	Processed  View Details

Evaluator Schedules the audit

Prev **1** Next

Take me back to Home

August 1, 2011, 3:50 pm

www.westernwaterevaluations.com

HOW IT WORKS: WEBSITE INTERFACE



Welcome Bill Johnson (Evaluator),

[Customer Request](#) [View Schedule](#) [Profile](#) [Logout](#)

List of Request

	From
1	Dexter Morgan Homeowner
2	Denzil Worthlin Homeowner
3	Dean Johnson Business Owner
4	fefe sdfd dgdgd
5	Grace Anne n/a

Add ET Data

ET Data

Aug-2010	Feb-2011
<input type="text" value="Meter Reading"/>	<input type="text" value="Meter Reading"/>
Sep-2010	Mar-2011
<input type="text" value="Meter Reading"/>	<input type="text" value="Meter Reading"/>
Oct-2010	Apr-2011
<input type="text" value="Meter Reading"/>	<input type="text" value="Meter Reading"/>
Nov-2010	May-2011
<input type="text" value="Meter Reading"/>	<input type="text" value="Meter Reading"/>
Dec-2010	Jun-2011
<input type="text" value="Meter Reading"/>	<input type="text" value="Meter Reading"/>

Schedule Info

Evaluation Data

Evaluation Start Time

(eg.05:00)

Evaluation End Time

(eg.18:00)

Evaluator Schedules the audit on their calendar

*Evaluator enters monthly ET
And microzone data for
customer's location*

ET Data

HOW IT WORKS: WEBSITE INTERFACE

- After Master Scheduler has created a request *and*
- After Evaluator has scheduled date/time of audit
- The customer information will appear in the menu of the evaluators iPad app.

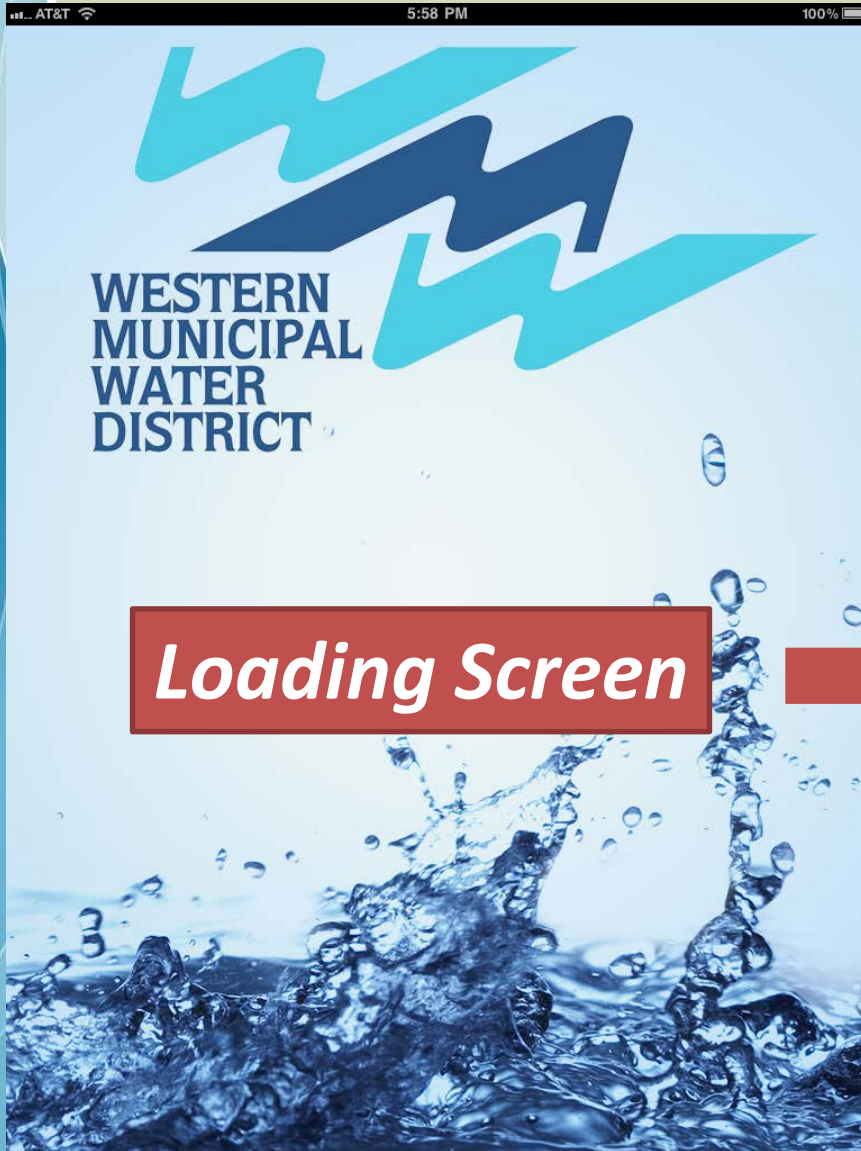


WESTERN'S iPad APP

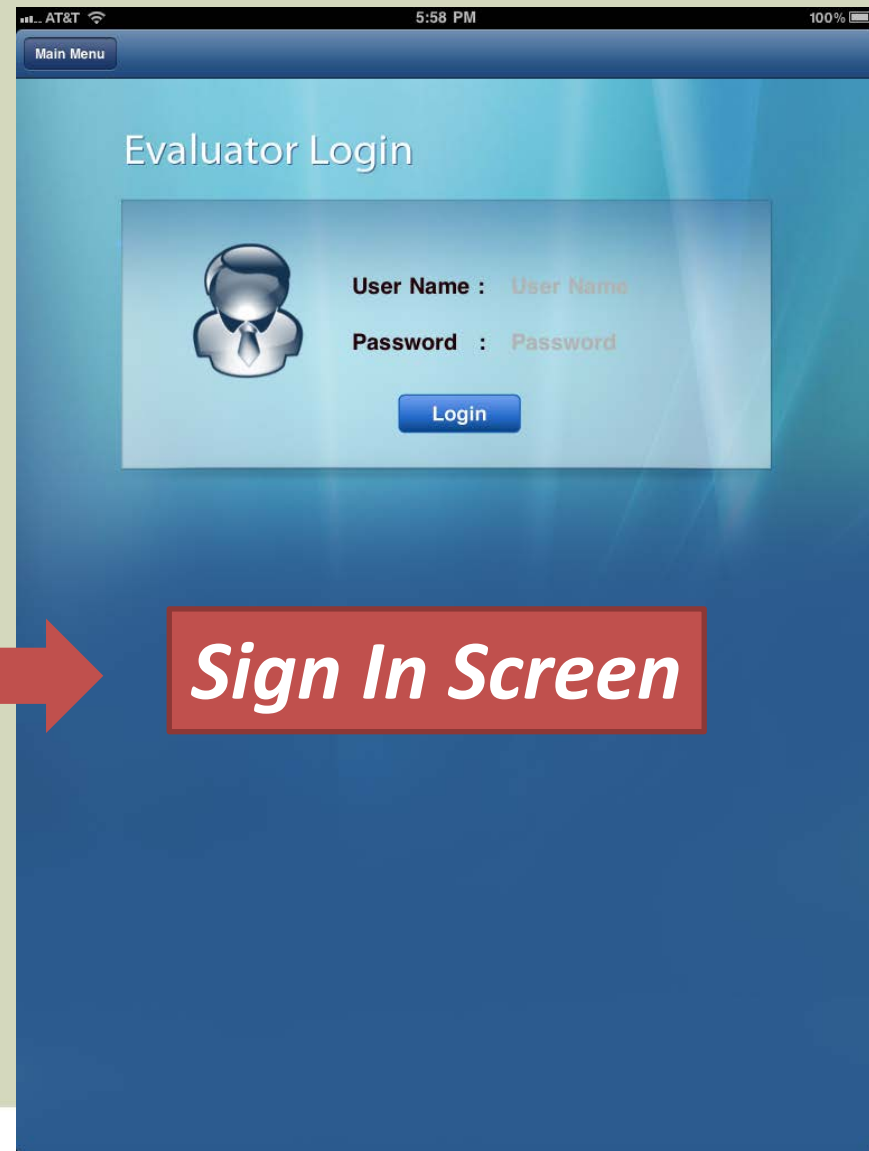


Western MWD's Irrigation Evaluation App

WESTERN'S IPAD APP



Loading Screen



Sign In Screen

Main Menu

Un Published Published

Search

- Denzil Worthlin** >
Homeowner
- Dean Johnson** >
Business Owner
- Grace Anne** >
n/a

Denzil Worthlin

Log Out

- Site Information >
- ET Data And Microzone >
- Meter Information >
- Recommends >
- Notes >

Unpublished = pending/assigned evals
Published = completed evals

App designed to function best in landscape format

Main Menu

Un Published Published

Search

Denzil Worthlin >
Homeowner

Dean Johnson >
Business Owner

Grace Anne >
n/a

Denzil Worthlin Log Out

Site Information >

ET Data And Microzone >

Meter Information >

Recommends >

Notes >

Touch the eval site

Site Information entered online

ET and microzone already entered by evaluator via web

- Site Information >
- ET Data And Microzone >**
- Meter Information >**
- Recommends >
- Notes >

Jul-2010:	0.9
Aug-2010:	0.9
Sep-2010:	0.8
Oct-2010:	0.7
Nov-2010:	0.7
Dec-2010:	0.7
Jan-2011:	0.7
Feb-2011:	0.7
Mar-2011:	0.7
Apr-2011:	0.7
May-2011:	0.7
Jun-2011:	0.8

Microzone Data

Evaluator next goes to Meter Information

Meter Number :8497B >

Jun-2010:	306 HCF / 228888 Gallons
Jul-2010:	366 HCF / 273768 Gallons
Aug-2010:	329 HCF / 246092 Gallons
Sep-2010:	289 HCF / 216172 Gallons
Oct-2010:	144 HCF / 107712 Gallons
Nov-2010:	136 HCF / 101728 Gallons
Dec-2010:	79 HCF / 59092 Gallons
Jan-2011:	58 HCF / 43384 Gallons
Feb-2011:	74 HCF / 55352 Gallons
Mar-2011:	99 HCF / 74052 Gallons
Apr-2011:	159 HCF / 118932 Gallons
May-2011:	255 HCF / 190740 Gallons

Irrigated Area Data >

Controller Information >

- Controller 1 >
- Controller 2 >

Controller 1

Controller Make :	Toro
Controller Model :	Intellisense
Smart Controller :	Yes
Available Station :	3

Station By Station >

Enter controller information then proceed to station by station audit

- Station1 >
- Station2 >
- Station3 >

Current Schedule

Runtime Per Cycle	8
Cycle Per Irrigation Day	1
Day Per Week	7
Total Run Time Per Day	
Total Run Time Per Week	
Total Run Time Per Month	

Recommended Schedule

Cycle Per Irrigation Day	1
Per Cycle	
Per Week	
Per Month	
Microclimate	Sun
Plant Material	High Water Use Shrubs and Cool Season Turf

Sprinkler Information

Sprinkler Make	Rainbird
Sprinkler Type	Spray

Total Sprinkler Heads	14
Percipitation Rate	2
Distribution Uniformity	.6
Total High Efficiency Nozzles at Head	14

Standardized info uses drop down menus

Back

Recommends

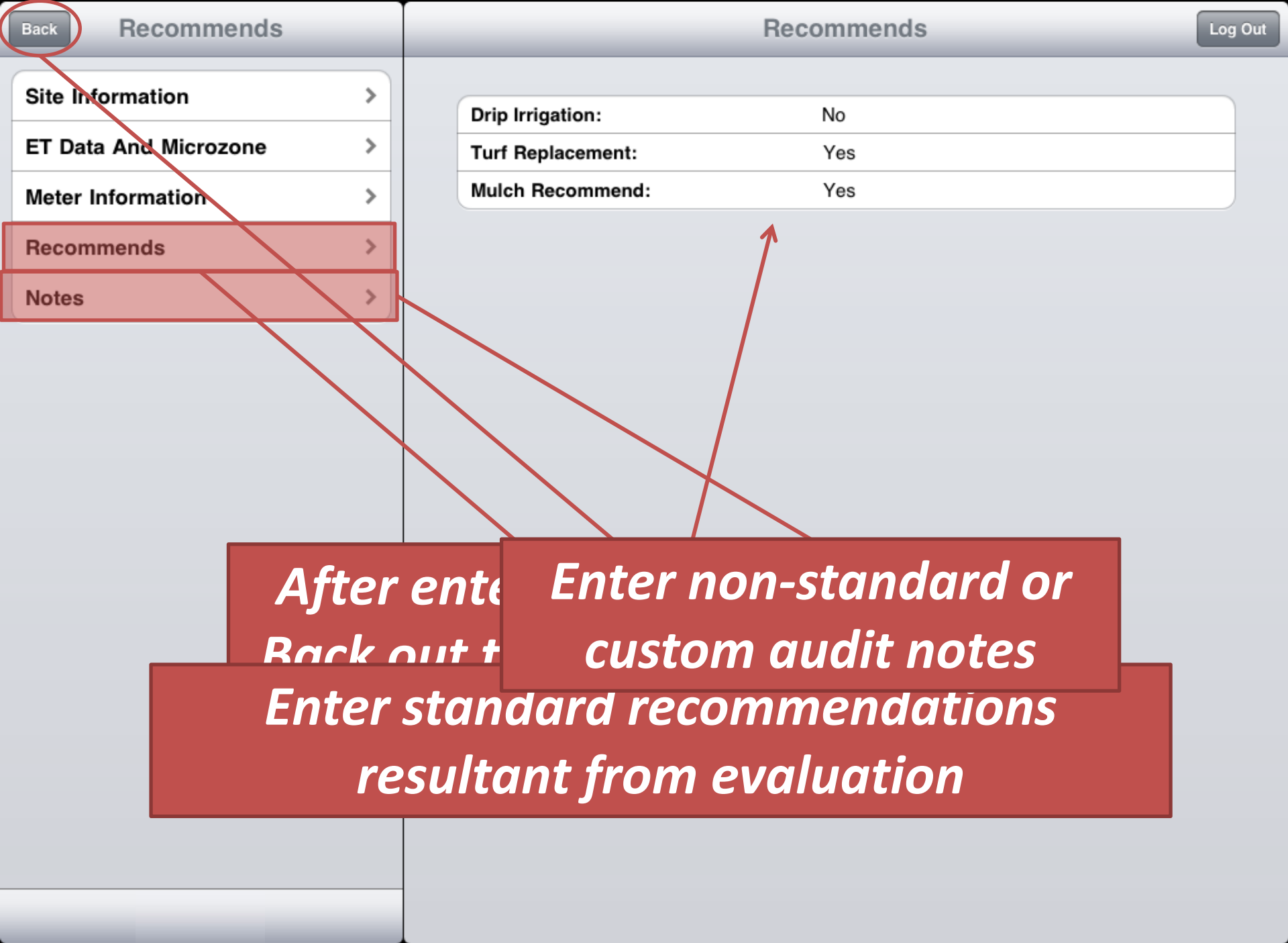
- Site Information >
- ET Data And Microzone >
- Meter Information >
- Recommends >**
- Notes >**

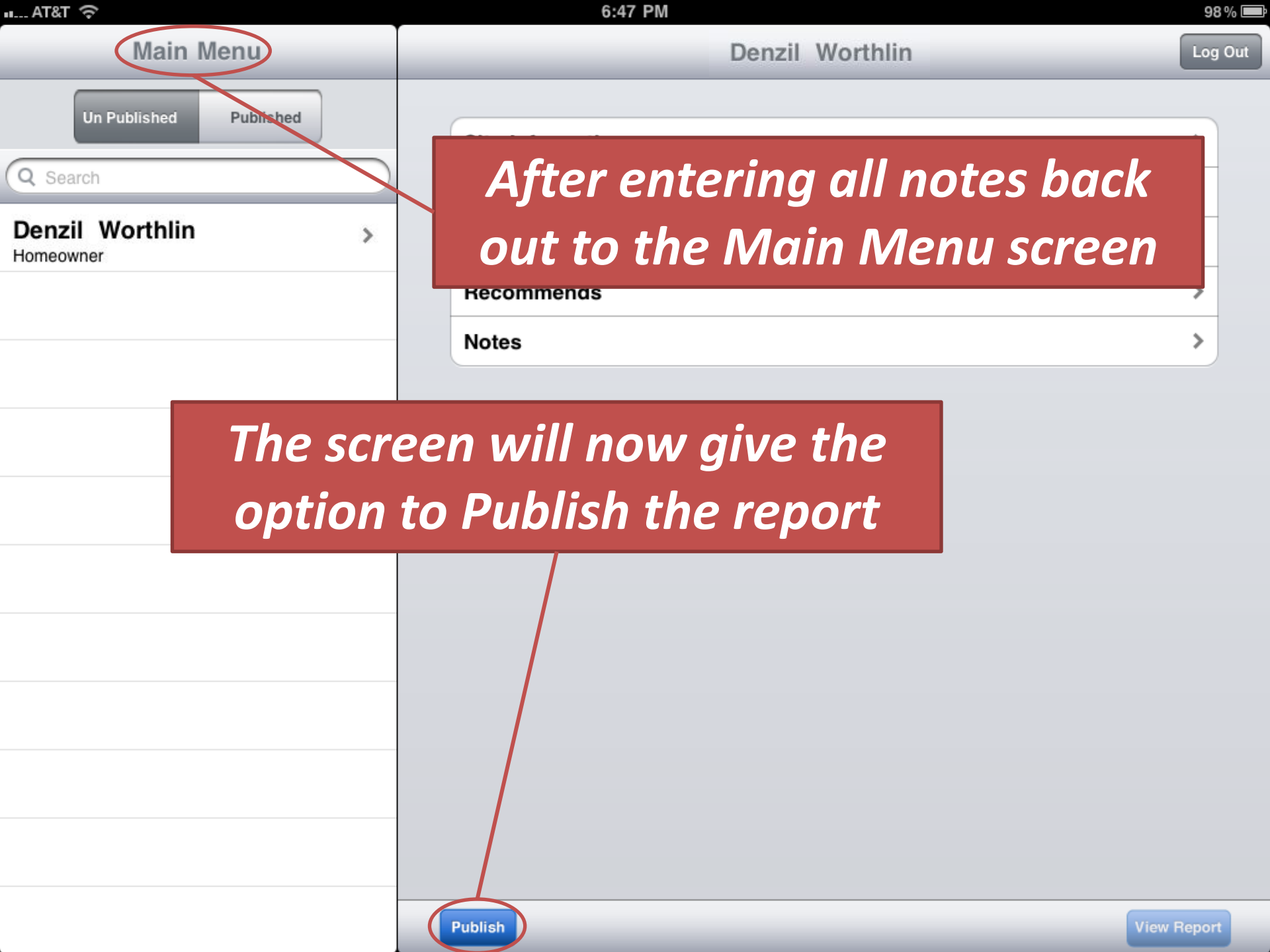
Recommends **Log Out**

Drip Irrigation:	No
Turf Replacement:	Yes
Mulch Recommend:	Yes

After entering site information, back out to the Recommends screen to enter standard recommendations resultant from evaluation

Enter non-standard or custom audit notes





Main Menu

Un Published

Published

Search

Denzil Worthlin

Homeowner

Denzil Worthlin

Log Out

After entering all notes back out to the Main Menu screen

Recommendations

Notes

The screen will now give the option to Publish the report

Publish

View Report

Main Menu

Denzil Worthlin

Log Out

Un Published Published

Search

- Denzil Worthlin** >
Homeowner
- Dean Johnson** >
Business Owner
- fefe sddfd sdfd** >
dgdgd
- Grace Anne** >
n/a

- Site Information** >
- ET Data And Microzone** >
- Meter Information** >
- Recommends** >
- Notes** >

WesternMWD
Your Request Is Published
Successfully

OK

Publish

View Report

Main Menu

Un Published

Published

Search

Denzil Worthlin

Homeowner

Dean Johnson

Business Owner

fefe sddfd sdfd

dgdgd

Grace Anne

n/a

Denzil Worthlin

Log Out

Site Information

ET Data And Microzone

Meter Information

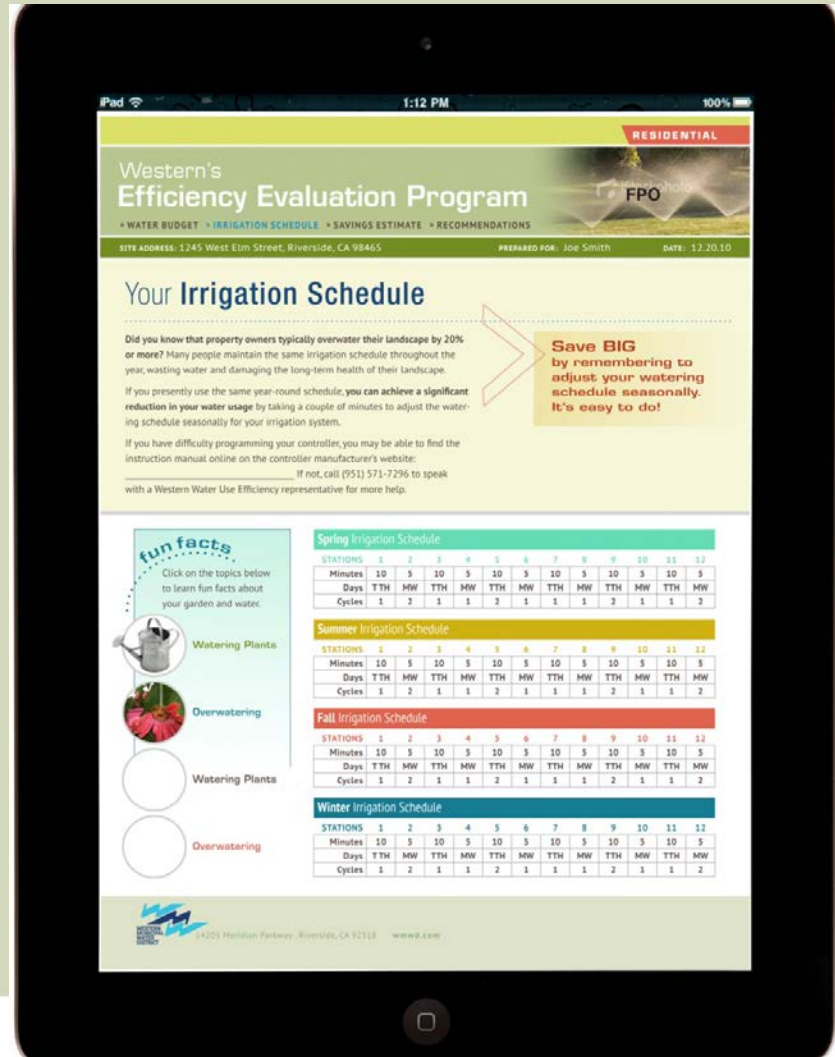
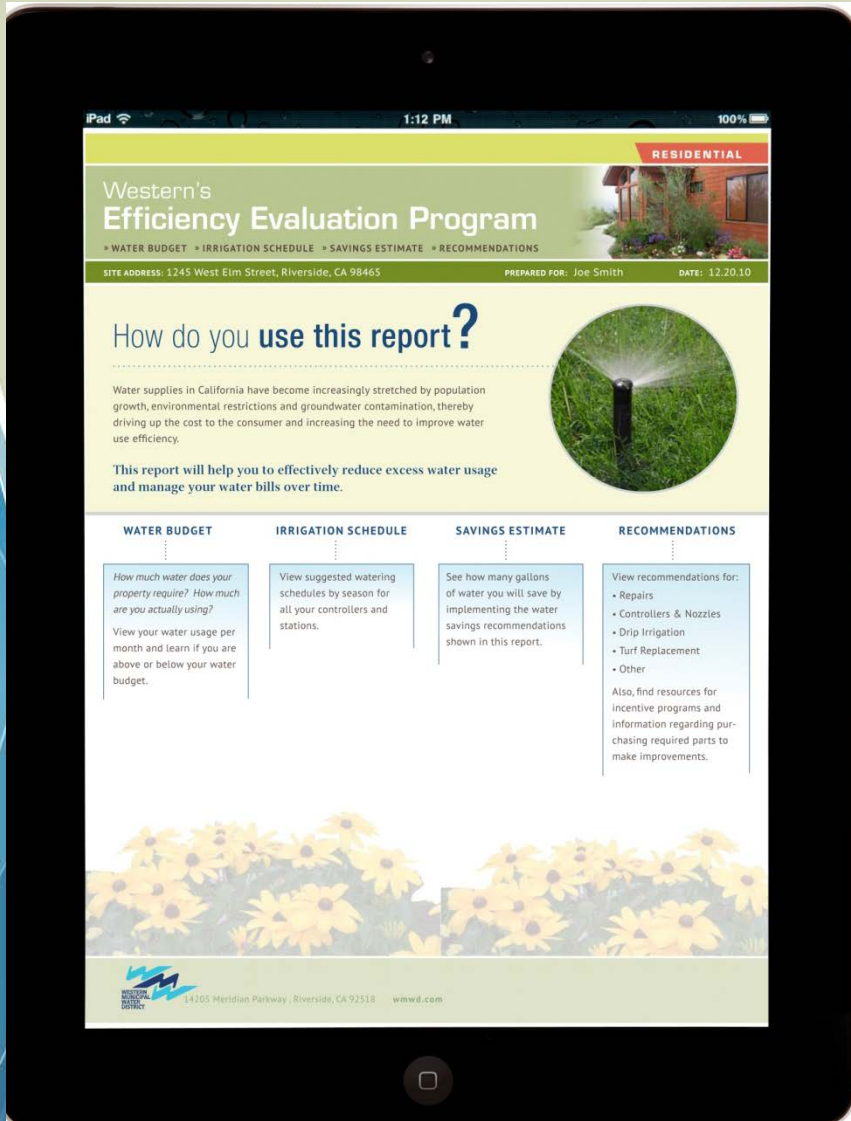
Recommends

Notes

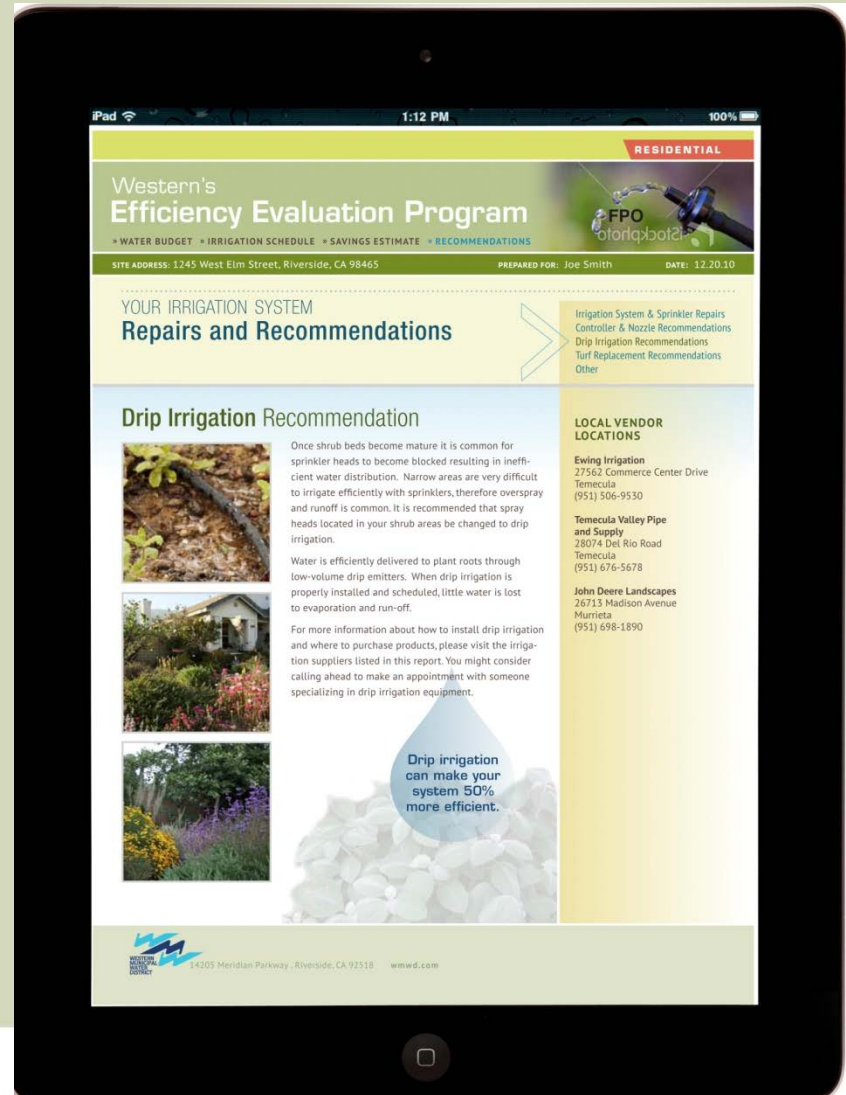
The screen will now give the option to View the report

View Report

INSTANT REPORT GENERATION



INSTANT REPORT GENERATION



BENEFITS OF WESTERN'S iPad APP



- Automated calculation process
- Instant report generation
- Emailed to customer on the spot
- Same data set is collected at every site with built in controls (also provides for electronic records of site data and results)
- Highly visual & interactive process
- Water budget is incorporated into the report and with visual customer education

Landscape Evaluations: There's an iPad App for that!

Questions?

Tim Barr

Western Municipal Water District

tbarr@wmwd.com

Maureen Erbeznik

Maureen Erbeznik & Associates

merbeznik@ca.rr.com

