

# This presentation premiered at WaterSmart Innovations

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## EVMWD's Niagara Stealth Toilet Program

Is 0.8 gallons per flush enough and  
do customers like it?

Rob Whipple, EVMWD Conservation Specialist

# Niagara Stealth Toilet

- o 0.8 gallons per flush
- o Vacuum assist
- o MaP test: 600 grams
- o WaterSense certified
- o “Quietest flush on the planet”
- o Saves about 16,500 gal/yr vs. 3.5 gpf toilet
- o Saves about 5,000 gal/yr vs. 1.6 gpf toilet
- o Saves about 3,000 gal/yr vs. 1.28 gpf toilet



# Niagara Stealth Toilet

- o Does it work?
- o Do customers like it?









NIAGARA CORPORATION  
0.8 gpf/3.0 lpf  
UPC  
N7714

NIAGARA CORPORATION  
STEALTH  
UHET  
PATENT PENDING

NIAGARA CORPORATION  
0.8 gpf/3.0 lpf



# Pilot Program - Stealth

- EVMWD, Western MWD, Eastern MWD, and John Koeller conducted a pilot program to determine the effectiveness of the Stealth 0.8 gpf toilet
- Eastern installed 40 toilets in residences, EVMWD installed 42 units in 21 homes, an HOA clubhouse, and a hotel
- The initial savings and satisfaction results were promising

# Direct Install Program

- o 3000 toilets available
- o Up to 2 free toilets and installation
- o Free showerheads and aerators
- o Recycling of old toilets
- o All customers qualify, including 1.6 gpf



# Vendor

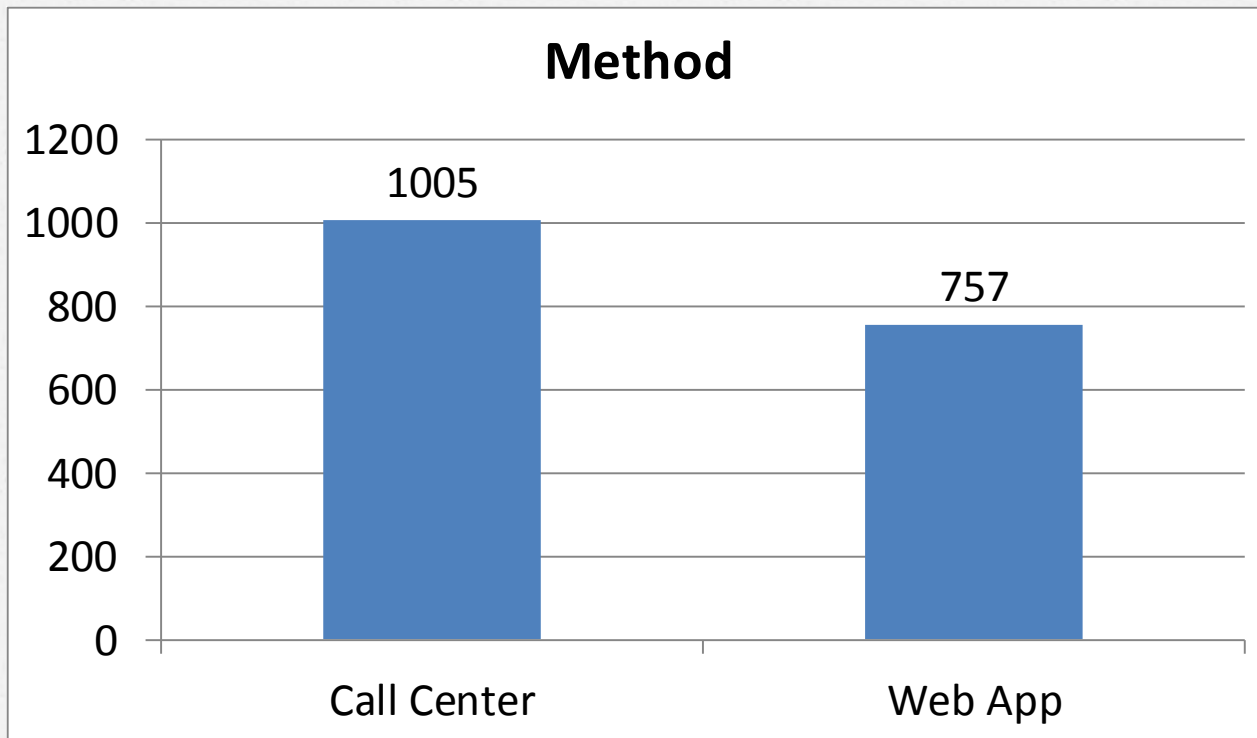
- o RFP in November, 2010
- o 4 bids, 2 above \$300/toilet, 2 at \$250/toilet
- o EVMWD selected EcoGreen Services, LLC
- o Required phone bank due to call volume
- o Asked for online application
- o Niagara assisted with marketing and supplied showerheads and aerators

# Stealth Program

- o Program started 1/27/11
- o Application process was 24/7
- o Program sold out 9:30 am Tuesday 2/1/11
- o The vendor processed over 2500 toilets in 24 hours
- o Some customers did not receive mailers until after program close



# Applications



# Customer Calls

- o Vendor took 3645 calls in 7 days from 1/28/11 to 2/2/11. 2355 calls came after program closed at 9:30 am Tuesday 2/1/11
- o In the 2 weeks after limit was reached – Vendor received 600 direct telephone calls and returned 298 voice mails fielding customer inquiries
- o Program started 1/27/11. Completed by 5/11/11



# Program Summary

- o 1650 individual customers
  - o 1338 replaced 2 toilets
  - o 312 replaced 1 toilet
  
- o Of 3009 toilets installed
  - o 1897 were 3.5 gpf (63%)
  - o 1054 were 1.6 gpf (35%)
  - o 58 were 5.0 gpf (2%)

# Savings Estimates

- Steath toilet savings are estimated at 118 AF per year and 2,357 AF over 20 years
- Avoided costs over the 20 year life of the toilets equal approximately \$2,036,000
- With a program cost of \$759,000, our cost per acre-foot is \$322



# Lessons Learned

- Send program mailers more in advance of program start to give everyone a chance to participate
- Use call center with robust database and call logs for every single call
- Use both web and phone based applications
- Ensure no pre-start applications taken

## Stealth Toilet Satisfaction Survey

- o Customer satisfaction survey conducted by Public Affairs staff in mid-August
- o Phone survey of 68 Stealth customers randomly selected from 1650 total
- o Survey Monkey survey received 508 responses out of 930 (55%)



# Satisfaction Survey

How satisfied are you with the FLUSH PERFORMANCE of your Stealth toilet?

Answer Options	Response Percent	Response Count	
Very Satisfied	72.5%	362	} 92%
Satisfied	19.6%	98	
Neutral	4.6%	23	
Dissatisfied	1.6%	8	
Very Dissatisfied	1.6%	8	
		<i>answered question</i>	499
		<i>skipped question</i>	9

# Satisfaction Survey

How satisfied are you with the performance of your Stealth toilet in  
CLEANING THE BOWL?

Answer Options	Response Percent	Response Count
Very Satisfied	56.2%	280
Satisfied	29.3%	146
Neutral	8.4%	42
Dissatisfied	4.8%	24
Very Dissatisfied	1.2%	6
<i>answered question</i>		498
<i>skipped question</i>		10

85%



# Satisfaction Survey

How satisfied are you with the size of the water surface area in the bowl?

Answer Options	Response Percent	Response Count
Very Satisfied	52.5%	261
Satisfied	36.4%	181
Neutral	8.2%	41
Dissatisfied	2.2%	11
Very Dissatisfied	0.6%	3
<i>answered question</i>		<b>497</b>
<i>skipped question</i>		<b>11</b>

89%

# Satisfaction Survey

How satisfied are you with the noise of the FLUSH of your Stealth toilet?

Answer Options	Response Percent	Response Count
Very Satisfied	69.5%	344
Satisfied	27.1%	134
Neutral	2.8%	14
Dissatisfied	0.4%	2
Very Dissatisfied	0.2%	1
<i>answered question</i>		<b>495</b>
<i>skipped question</i>		<b>13</b>

97%



# Satisfaction Survey

How satisfied are you with the noise of the TANK FILLING of your Stealth toilet?

Answer Options	Response Percent	Response Count
Very Satisfied	77.2%	380
Satisfied	19.9%	98
Neutral	2.2%	11
Dissatisfied	0.2%	1
Very Dissatisfied	0.4%	2
<i>answered question</i>		492
<i>skipped question</i>		16

97%

# Satisfaction Survey

How often does your Stealth toilet CLOG?

Answer Options	Response Percent	Response Count
Every day	1.2%	6
Several times per week	5.1%	25
Several times per month	11.9%	58
Less than one time per month	81.8%	399
<i>answered question</i>		488
<i>skipped question</i>		20



# Satisfaction Survey

How often do you have to "double flush" to REMOVE WASTE from the bowl?

Answer Options	Response Percent	Response Count
Every day	5.7%	28
Several times per week	13.0%	64
Several times per month	22.7%	112
Less than one time per month	58.7%	290
	<i>answered question</i>	<b>494</b>
	<i>skipped question</i>	<b>14</b>

# Satisfaction Survey

How often do you have to "double flush" to CLEAN THE SIDES OF THE BOWL?

Answer Options	Response Percent	Response Count
Every day	6.5%	32
Several times per week	11.9%	59
Several times per month	23.0%	114
Less than one time per month	58.6%	290
	<i>answered question</i>	<b>495</b>
	<i>skipped question</i>	<b>13</b>



# Satisfaction Survey

Compared to my old toilet, I must "double flush" the Stealth toilet....

Answer Options	Response Percent	Response Count
More often	21.5%	105
About the same	15.0%	73
Less often	63.5%	310
<i>answered question</i>		488
<i>skipped question</i>		20

Compared to my old toilet, my Stealth toilet clogs...

Answer Options	Response Percent	Response Count
More often	13.2%	65
About the same	14.4%	71
Less often	72.5%	358
<i>answered question</i>		494
<i>skipped question</i>		14

# Satisfaction Survey

Compared to my old toilet, my Stealth toilet cleans the sides of the bowl....

Answer Options	Response Percent	Response Count
More effectively	43.9%	218
About the same	38.0%	189
Less effectively	18.1%	90
<i>answered question</i>		<b>497</b>
<i>skipped question</i>		<b>11</b>



# Satisfaction Survey

Did you have any issues requiring a call to the installer or the water district?

Answer Options	Response Percent	Response Count
Yes	9.8%	49
No	90.2%	451
	<i>answered question</i>	500
	<i>skipped question</i>	8

# Satisfaction Survey

Would you recommend the Stealth toilet to others?

Answer Options	Response Percent	Response Count
Yes	92.2%	460
No	7.8%	39
<i>answered question</i>		499
<i>skipped question</i>		9





# Thank You

Western Municipal Water District

John Koeller

Niagara Conservation

EcoGreen Services LLC

Questions?



# Initial Water Savings

<b>No Toilet(s) - Control</b>	Change in Usage 2010-2011	-1.34%
60 customers		
<b>One Toilet, 33 Customers</b>	Change in Usage 2010-2011	-11%
33 customers, 33 toilets		
	Projected 20 Year Savings	1 AF
	Cost per AF	\$245
<b>Two Toilets</b>	Change in Usage 2010-2011	-11%
33 Customers, 66 toilets		
	Projected 20 Year Savings	0.8 AF
	Cost per AF	\$313