

#### **Presenters**



Stephen Callahan
Regional Sales Manager – Northeastern USA
Sloan Valve Company
South Windsor, CT, USA



Andrew Warnes
Technical Training Manager
Sloan Valve Company
Franklin Park, IL, USA



## **Agenda**

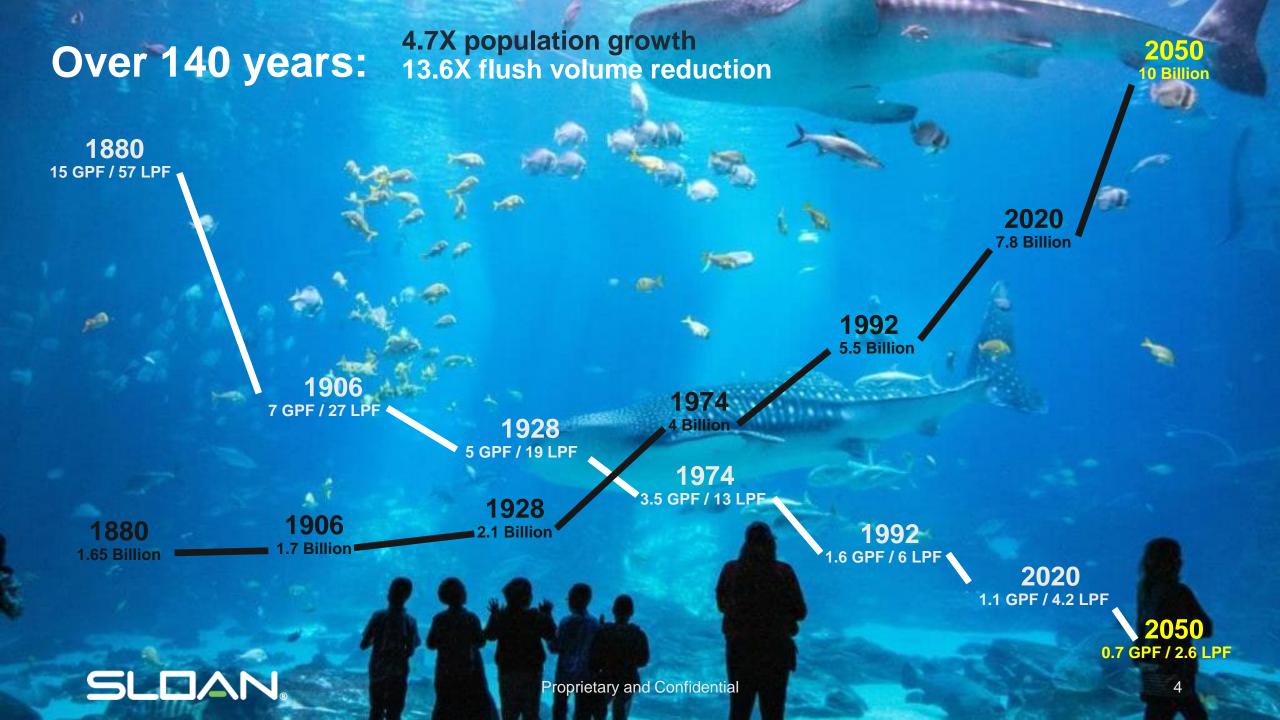
- The logic and key drivers for water conservation
- Regulations, codes, and certifications
- How do Sloan products support water conservation?
- Products and case studies
- Where to get more information
- Q&A session

WATER CONSERVATION is a mindset that helps ensure there are adequate and sustainable water supplies in the future

WATER EFFICIENCY means conserving water using water saving technologies

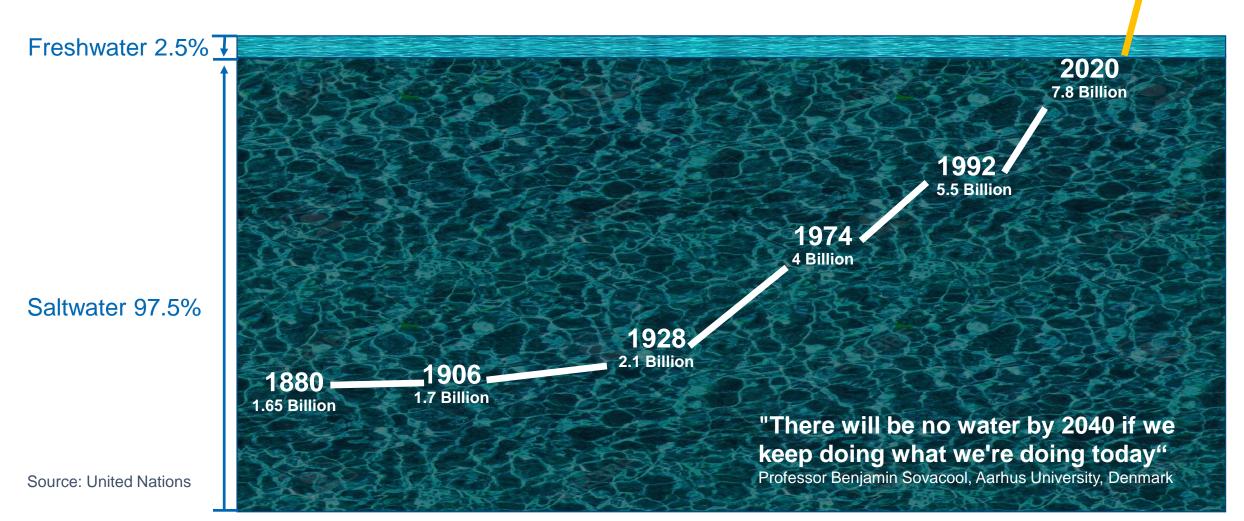
The result of both is a reduction in water use







### 70% of the Earth is covered with water, but....





#### The Cost of Water

The decision to conserve water today (and moving forward) is a rational strategy driven by anticipated shortages and costs

Source: Beecher, Institute of Public Utilities, MSU (2016)

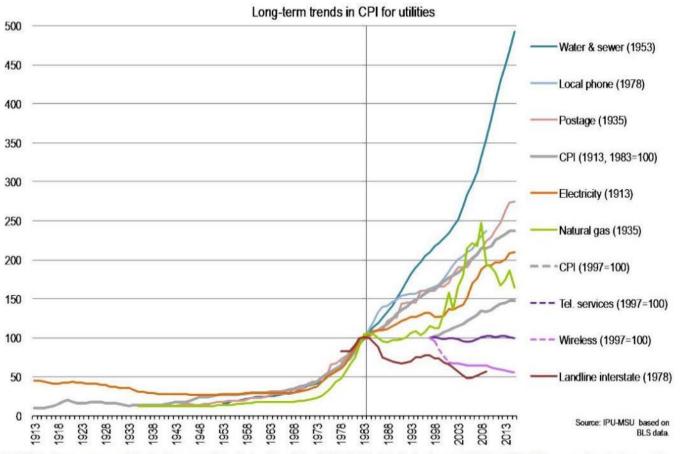
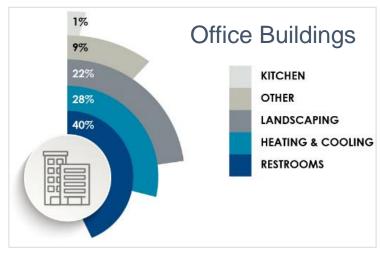
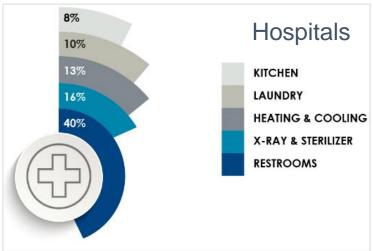


Exhibit 1. Long-term trends in the Consumer Price Index for utilities (1913-2015). The index is set to 100 for 1982-1984 except for telephone and wireless services, where the index is set to 100 for 1997. Year (\*) indicates start of series.

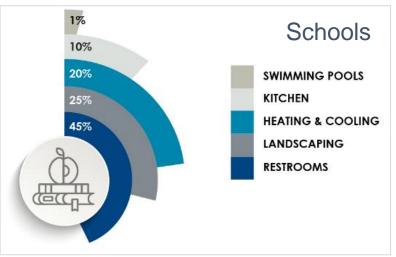


### Where to Conserve?















# How do Sloan Products Support Water Conservation and Sustainability?









Compliance

**Water Efficiency** 

**Transparency** 

**Carbon Offset** 



## **Benchmarks for Compliance**









Baseline		
(mandatory for new construction)		

Closets	1.28 gpf
Urinals Hybrid Waterfree	0.125 gpf
Faucets	0.5 gpm
Metering Faucets	0.2 gpc
Shower Heads	1.8 gpm + WaterSense

Baseline		
(aligned with CalGreen except for		
metering faucets)		

metering faucets)		
Closets	1.28 gpf	
Urinals Hybrid Waterfree	0.125 gpf	
Faucets	0.5 gpm	
Metering Faucets	0.25 gpc	
Shower Heads	1.8 gpm + WaterSense	

#### Updated State Plumbing Codes

Closets	1.28 gpf	
Urinals	0.5 gpf	
Georgia, New York, Nevada, Oregon, Texas, Washington		

#### Baseline

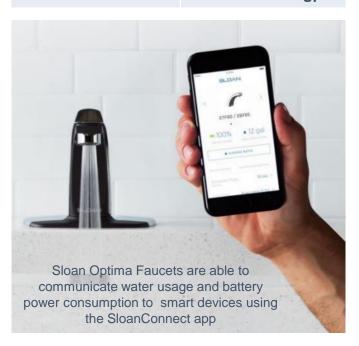
Closets Tank Flushometer	1.6 gpf max dual flush 1.28 gpf max single flush 1.28 gpf max 1.0 gpf min
Urinals	0.5 gpf max
Faucets Private Public	1.5 gpm <b>NA</b>
Shower Heads	2.0 gpm



### **LEED v4 Credits for Water Conservation**

# Baseline Must reduce by 20% or more to achieve LEED certification and 25% or more to achieve LEED points Water Closet 1.6 gpf Urinal 1.0 gpf

raucei	0.5 gpiii
Shower heads	2 5 anm



BD+C Building Design and Construction			
Percent	Points	Points	
Reduction	(BD+C)	(Schools, Retail, Hospitality, Healthcare)	
25%	1	1	
30%	2	2	
35%	3	3	
40%	4	4	
45%	5	5	
50%	6	_	

ID+C Interior Design Construction			
Percent	Points	Points	Points
Reduction	(Commercial Interiors)	(Retail)	(Hospitality)
25%	2	2	2
30%	4	4	4
35%	6	6	6
40%	8	8	8
45%	10	10	10
50%	12	_	11

O+M Building Operation and Maintenance			
Percent	Points	Points (Pote Contain)	
Reduction	(Except Data Centers)	(Data Centers)	
10%	1	1	
15%	2	2	
20%	3	3	
25%	4	4	
30%	5	_	



## **LEED v4 Credits for Transparency**







#### **LCA**

Life Cycle Assessment

#### **EPD**

Environmental Product Declaration

#### **HPD**

Health Product Declaration

All Sloan EPDs and HPDs meet the criteria of LEED 4.1 and are worth 1.5 product value

#### How can Sloan products help meet the goals of a project?

- To achieve a LEED v4 Materials and Resources credit (EPD for BD+C), a project team must specify 20 different products that have an EPD, each of which are sourced from at least five different manufacturers.
- To achieve LEED v4 Materials and Resources credit— HPD for BD+C, a project team must permanently install at least 20 different products from five different manufacturers who have an HPD in compliance with the Health Product Declaration Open Standard.
- For EPD for ID+C, a project team must specify 10 different products sourced from at least three different manufacturers.
- For HPD for ID+C, your project team must install at least 10 different products from at least three different manufacturers.

Sloan Transparency Reports



#### The Difference between LEED & WELL

## LEED – How the building impacts the environment



Link to Training Webinar:
Sustainability and Sloan Commercial Restroom Products

## WELL – How the building impacts the occupants



Link to Training Webinar: WELL and Sloan Commercial Restroom Products



### WELL



AIR
4 preconditions
10 optimizations



3 preconditions 6 optimizations + 1 beta



NOURISHMENT 2 preconditions 11 optimizations



LIGHT
2 preconditions
6 optimizations



MOVEMENT 2 preconditions 10 optimizations



THERMAL COMFORT

1 preconditions 6 optimizations



SOUND
1 preconditions
5 optimizations
+ 1 beta



MATERIALS 3 preconditions 11 optimizations



MIND 2 preconditions 13 optimizations



COMMUNITY
3 preconditions
14 optimizations
+ 1 beta

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Courtesy of WELL



Link to Training Webinar:

WELL and Sloan Commercial

**Restroom Products** 

## **WELL Material Transparency**

#### **Promote Ingredient Disclosure**

 Newly installed interior finishes and finish materials...disclosed to 1,000 ppm and earning points based on the table below:

Minimum Percent by Cost	Points
25% (by cost)	1
50% (by cost)	2

Most Sloan sensor faucets have 3<sup>rd</sup> party validated HPD's disclosed at 1,000 ppm.









Sloan Transparency Reports



### **Carbon Offset**



"Cradle to Gate"

'T Code' Products – no charge forestation credits



**Cradle to Grave** 

On-demand



2.5 trees for every 1 flushometer

For every Sloan flushometer produced, Sloan plants 2.5 trees to offset production

Carbon Neutral Sell Sheet



## **EPA WaterSense Program**

- Voluntary labeling program similar to the Energy Star Program
- WaterSense helps select cost-effective products by labeling those certified at least 20% more efficient without sacrificing performance
- No WaterSense specification has been created for commercial sensor faucets

Sloan has more WaterSense approved commercial plumbing products available than any other manufacturer



Baseline		
Closets Tank Flushometer	1.6 gpf max dual flush 1.28 gpf max single flush 1.28 gpf max 1.0 gpf min	
Urinals	0.5 gpf max	
Faucets Private Public	1.5 gpm <b>NA</b>	
Shower Heads	2.0 gpm	



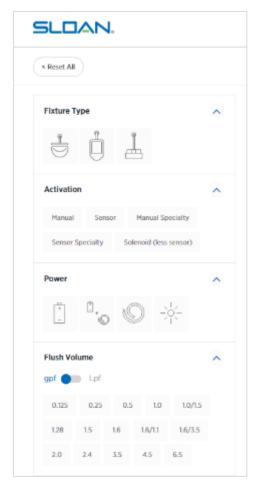


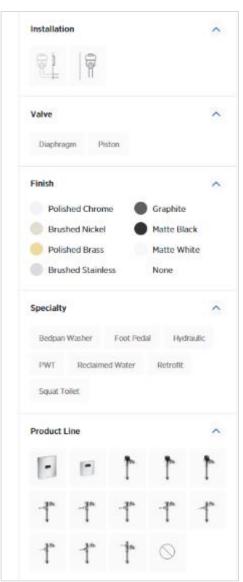


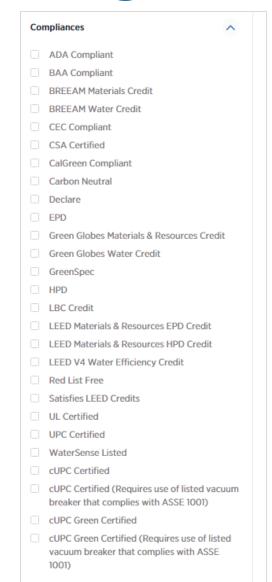


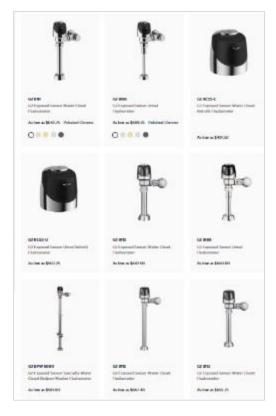


## Sloan Flushometer Configurator Tool









Sloan Flushometer Configurator Tool



### **UPPERCUT Manual Dual Flush Handle**

#### **Features**

- Green handle signifies UPPERCUT's water-saving features
- Available as a complete valve or as a retrofit kit for existing valves
- Push handle down for a regular 1.6 gpf flush to remove solid waste and paper
- Lift handle to initiate reduced, 1.1 gpf flush to eliminate liquid and paper waste, saving one-half gallon of water (30% less)
- Optional antimicrobial coating on handle lasts for the life of the product



Dual-flush options help reduce water consumption by up to 30%



### **Side Mount Retrofit Kits**









	SMO	SMOOTH	SFSM/DFSM
Model	EBV-89-A	EBV-200-A	EBV-500-A/550-A
Override	Electronic	TMO	TMO
Dual Flush	-	-	DFSM
Installation	Replaces handle	Over the handle	Replaces handle

Link to Training Webinar:

<u>Upgrading Manual</u>

<u>Flushometers to Touch-free</u>

Sensor Operation



## **Top Mount Retrofit Kits**













	SLOAN	MC	G2	ECOS	SOLIS
Flush volume – Closet (gpf) Flush volume – Urinal (gpf)	1.28 to 4.5 0.125 to 1.5	1.28 to 1.6 0.125 to 1.0	1.6 to 4.5 0.25 to 1.5	1.28 & 1.6/1.1 0.125 to 0.5	1.28 to 3.5 & 1.6/1.1 0.125 to 1.5
"Stadium Flush" (urinals)				X	X
Override Button	Electronic	Electronic	Elec	tronic	Electronic

Link to Training Webinar:

<u>Upgrading Manual</u>

<u>Flushometers to Touch-free</u>

Sensor Operation



#### Reclaimed Water Flushometer



- Reclaimed water systems are more aggressive than potable water systems due to the chemical content and nature of the water.
- Results in dezincification, which can diminish mechanical strength.
- UPC and IPC code correct purple

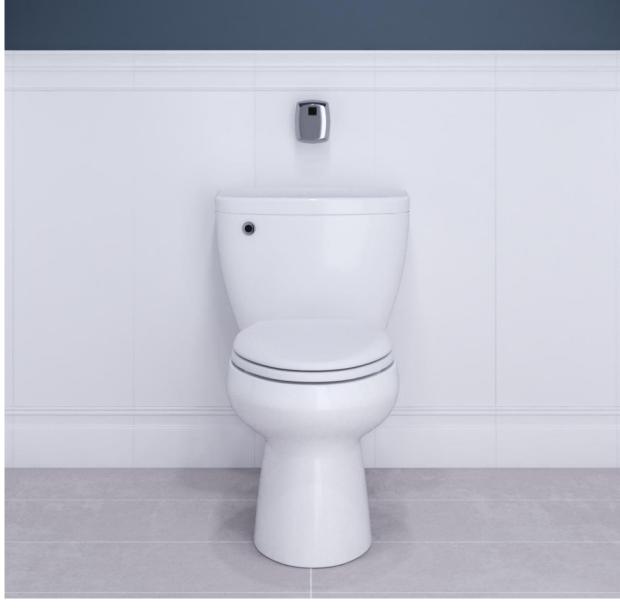
San Francisco requires new buildings over 250,000 ft2 to utilize reclaimed water to flush water closets and urinals.



# **Pressure- Assisted Toilets**

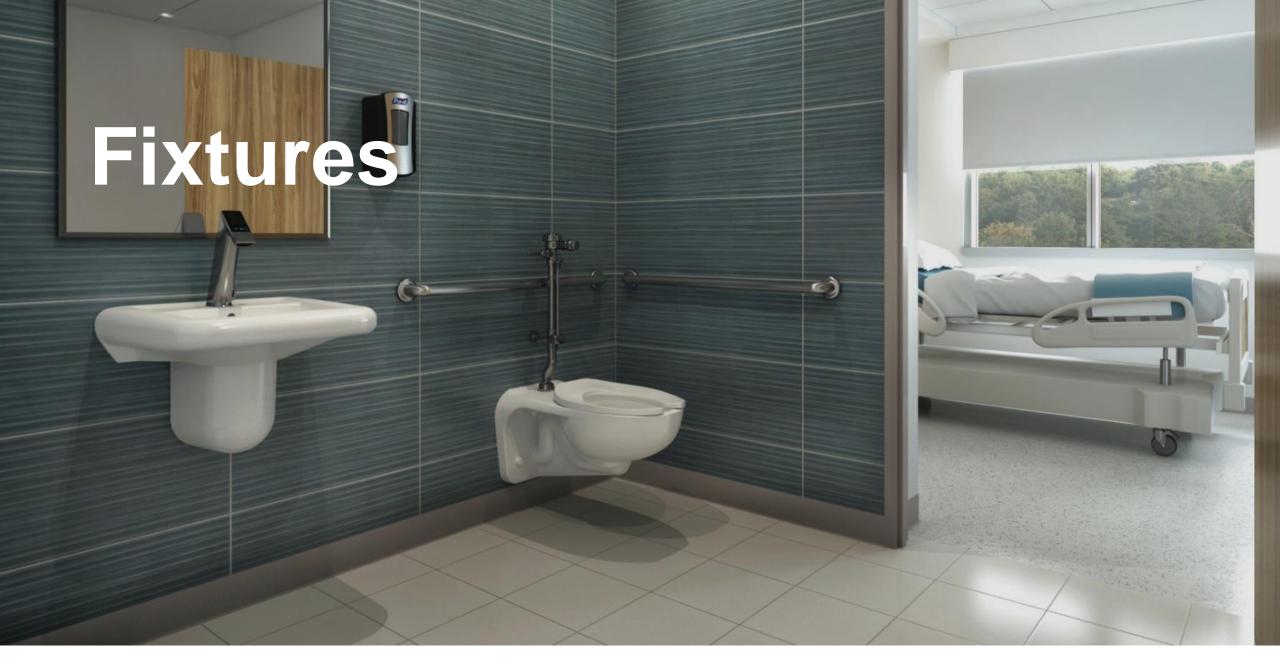
Available pressure-assisted toilet options

- Standard and ADA-compliant toilets
- Three flush volumes (1.0, 1.28, and 1.6 gpf)
- Left or right flush handles
- White with an elongated bowl
- Standard 12" rough-in
- Compliances: ADA, BAA, CalGreen\*, CEC\*, cUPC, cUPC GREEN\*, NOM, WaterSense\* (\*1.0 and 1.28 gpf only)
- Bowls and tanks sold separately
- Bowls with SloanTec<sup>®</sup> hydrophobic glaze



Shown with the INTELLI-Flush touch-free flushing option







## High Efficiency Toilets and Urinals



An HET is a fixture with an average flush volume of 1.28 gpf or less, and must meet the performance requirements of ASME 19.2/CSA B45.1 and pass the 350 grams MaP. Dual-flush devices (1.6/1.1 gpf) are considered HET.

That's 20% less than most toilets on the market today. The current toilet WaterSense baseline is 1.6 gpf.



An HEU is a urinal with a maximum flush volume of 0.5 gpf or less, and must meet the performance requirements of ASME 19.2/CSA B45.1. HEU gpf options – 0.5 gpf - 0.25 gpf - 0.125 gpf – Waterfree - Hybrid

That's up to 75% less than today's WaterSense baseline of 0.5 gpf.

Use the Sloan Product Configurator Tools here to select HET and HEU products and to see all of the many options, configurations, and benefits available.

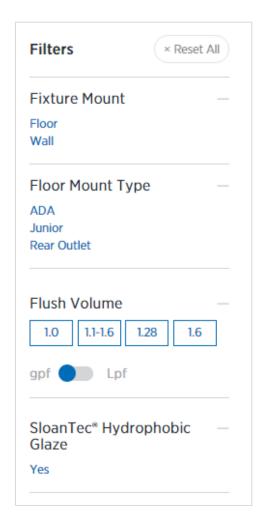
Sloan Water Closet
Configurator Tool

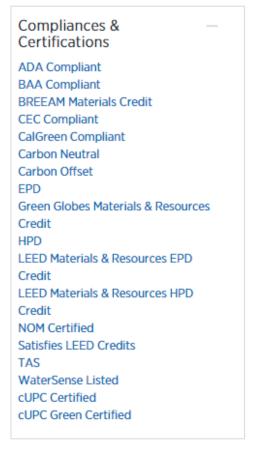
Sloan Urinal Configurator Tool

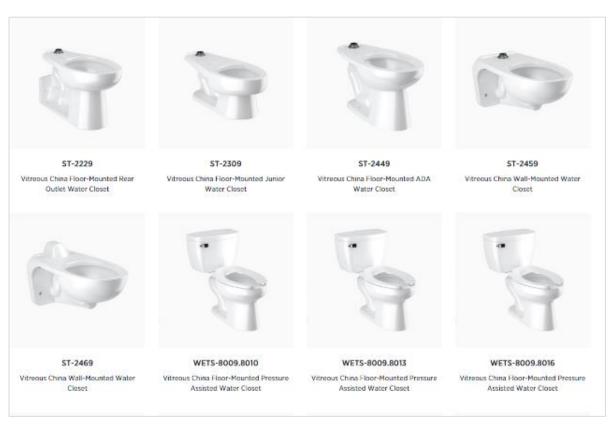
Sloan Flushometer
Configurator Tool



## Sloan Water Closet Configurator Tool



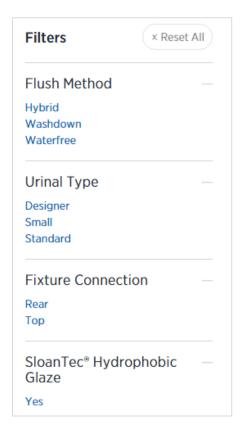


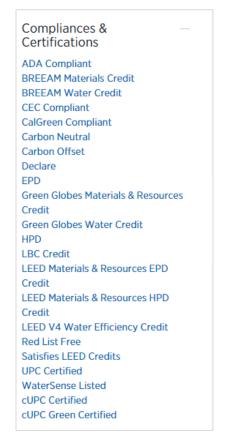


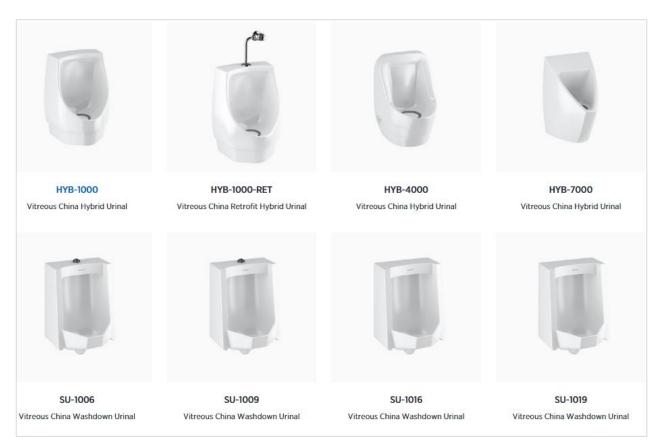
Sloan Water Closet
Configurator Tool



## **Sloan Urinal Configurator Tool**







Sloan Urinal Configurator Tool



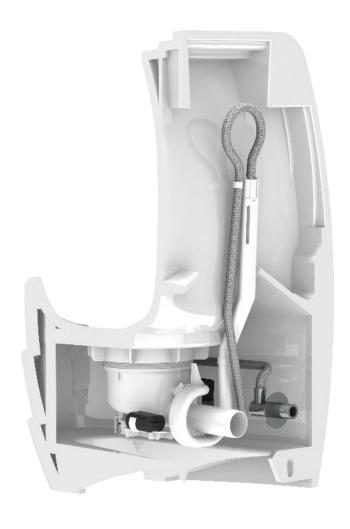
## Waterfree and Hybrid Urinals







## **How do Sloan Hybrid Urinals Work?**



- Vigorously injects ~1 gallon of water through housing and down the drain of the urinal automatically every 72 hours
- Prevents struvite build up in drain nipple that causes most clogs & odors
- Eliminates need for bucket dumps & bottle brush cleaning
- Features Falcon Waterfree Technology



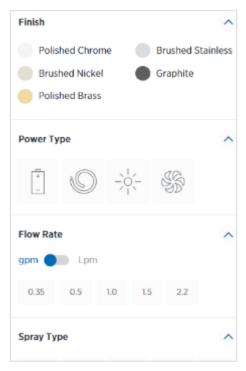


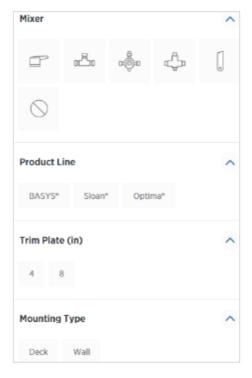


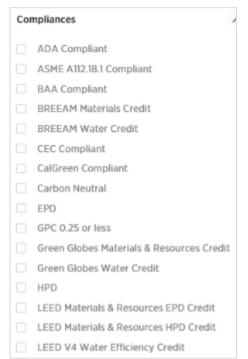
#### Sloan Faucet Finder

 Browse automatic sensor faucets by style, features, options, or certifications with the <u>Sloan Faucet Finder</u>. Find your faucet, and easily drill down to individual spec sheets.











# Standards and Codes for Public Lavatory Faucets Standard or Code for Public\* Lavatory

Link to Training Webinar:

Overview of Sloan Touch-free
Faucets

Link to Training Webinar:

<u>Upgrading Manual Faucets to</u>
Touch-free Sensor Operation

Standard or Code Faucets as of *Public = not used in pri rooms or private	Maximum Flow Rate		Maximum Gallons Per Cycle (gpc)			
ASME A112.18.1	Sensor	0.5 gpm		NA		
and <b>CSA B125.1</b> (UPC)	Metered	NA		0.25 gpc		
International	Sensor	0.5 gpr	0.5 gpm @ 60 psi		NA	
Plumbing Code (IPC 2012)	Metered	NA		0.25 gpc		
ASPE Plumbing	Sensor	0.5 gpm @ 60 psi NA		NA		
Engineering Design Handbook 2010	Metered			0.25 gpc		
EPA WaterSense		Does not apply to Public Lavatory Faucets				
LEED v4 Indoor Water Use Reduction replaces LEED 2009 10-31-2016		0.4 gpm (20% reduction from code)		NA		
LEED 2009 Indoor W for projects registers and completed befo	0.4 gpm (20% reduction from code)		0.20 gpc			
New York City Plum 604.4 and Table 604	Various		0.25 gpc			
<b>CEC Title 20</b> 4-8-203	0.5 gpm		NA			
CALgreen		Tier 1	Tier 2	Tier 1	Tier 2	
1-30-2011	Sensor	0.4 gpm	0.35 gpm	NA	NA	
updated 7-15-2015	Metered	NA	NA	0.20 gpc	0.18 gpc	
Please refer to actual Standard or Code documents for further details						



# **Changing Faucet Sprayheads to Lower Water Use**

++	OPTIMA	Key not required	d or included				
			Spray Type				
					V		
		Flow Rate	Multi-Laminar	Laminar	Aerated	Raindrop	
		0.35 GPM / 1.3 LPM	0335029 EAF51				
	EAF 200 EAF 225 EAF 250	0.5 GPM / 1.9 LPM	0335010 EAF12		0335036 EAF63		
	EAF 275	1.0 GPM / 3.8 LPM	0335054 EAF54				
		1.5 GPM / 5.7 LPM		0335053 EAF53	0335021 EAF22		
		2.2 GPM /		0335011	0335008		



EAF13

EAF10

8.3 LPM

# 0.35 GPM LEED v4.0 Compliant Faucets

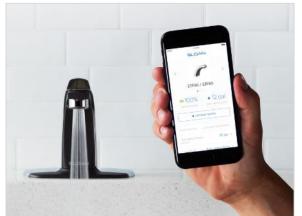
LEED version	Date a new project could be registered	Last date a project can be completed	Maximum commercial faucet flow rate permitted	Permits "Duration-based savings from autocontrol faucets with automatic fixture sensors or metering controls"?	Number of Sloan faucet models that qualify
LEED 200	Ended October 2016	June 30, 2021	0.4 GPM / 1.5 LPM	Yes, up to 0.20 gallons per cycle (GPC)	219 (159 with 0.20 GPC or less and 60 with 0.35 GPM)
LEED v4	Began November 2013	Not yet announced	0.4 GPM / 1.5 LPM	No	60 (0.35 GPM)

Sloan Faucet Finder Tool

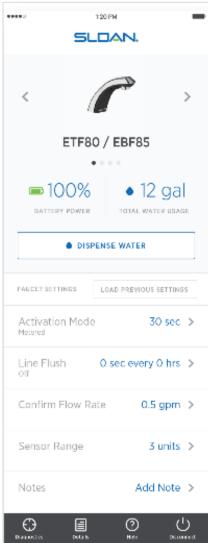


## SloanConnect App

- Adjust settings wirelessly (no deck disassembly or below-deck work)
- Select On-demand or Metered activation
- Set faucet timeouts
- Activate Line Flush to clear supply lines or drains
- Measure and report water usage
- Check battery strength
- Identify your faucet and access technical data
- Generate and share diagnostic reports with Sloan
- Save notes about site or faucet









## **PWT Systems**





# PWT is a Water Management System

- Manages water usage via number of flushes, length of water activation
- Designed to minimize vandalism risk
- Consists of several products configurable in many ways for different applications

PWT sets new rules for user behavior







# How does it Work? Products Connect to Create a System



#### **Button:**

Sends a signal to activate flush



Battery



Hardwired

#### **Controller:**

Determines if water/flush can be activated

Number of flushes in a given time (5 minutes)

Length of time since last flush

8603-ESM head contains controller programming





#### Valve:

Receives message from controller to flush / activate

#### **Shower & Lav:**

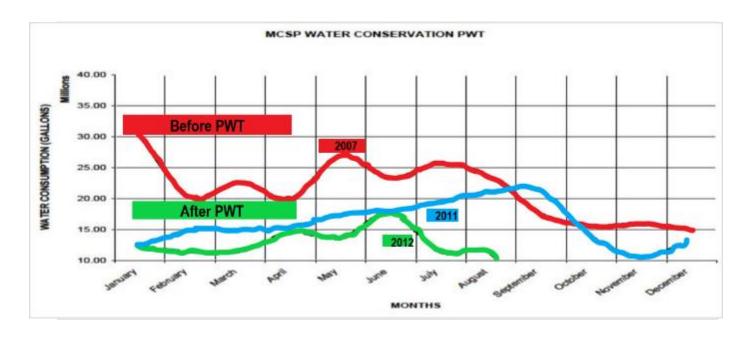
Receives message from controller to run water for programmed length of time



## Tremendous Water Savings, Excellent ROI



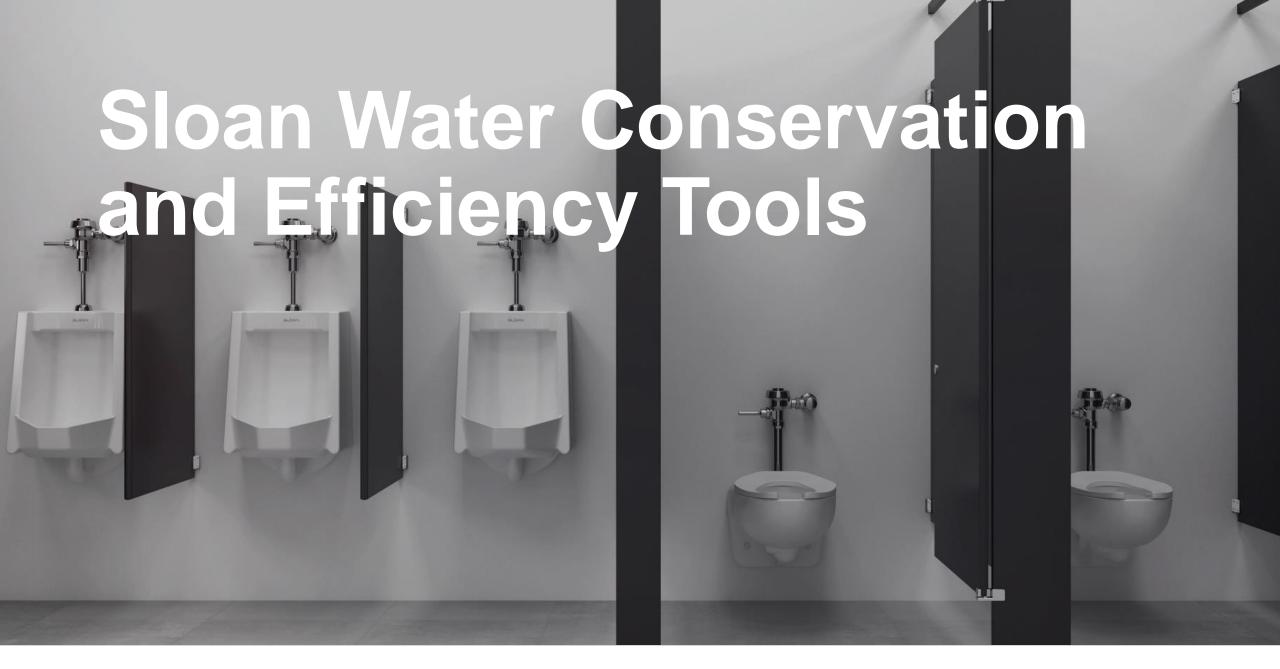
Mule Creek State Prison, Ione, California



Institution	Year	Month	Water Consumption in Gallons	Wastewater Flow
MCSP	2007	January	30,067,489.00	29,016,000.00
MCSP	2011	January	12,486,364.00	16,047,000.00
MCSP	2012	January	12,330,000.00	11,157,086.00

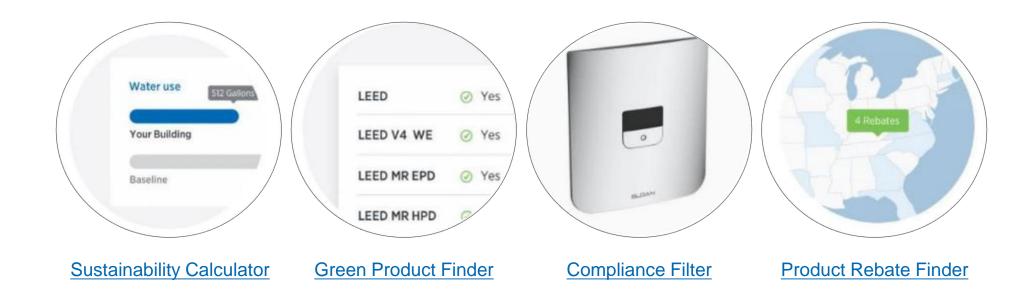
Product Rebate
Finder Tool





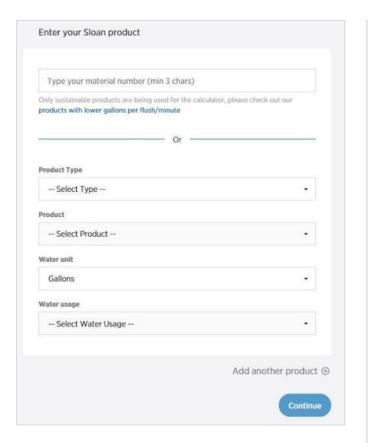


### What Tools does Sloan Provide?

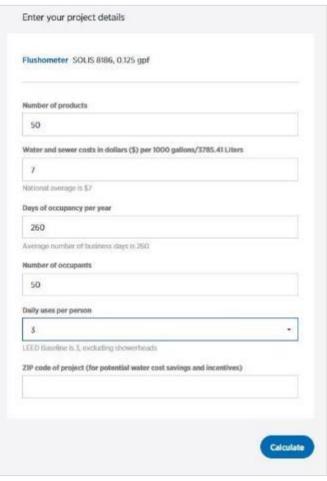


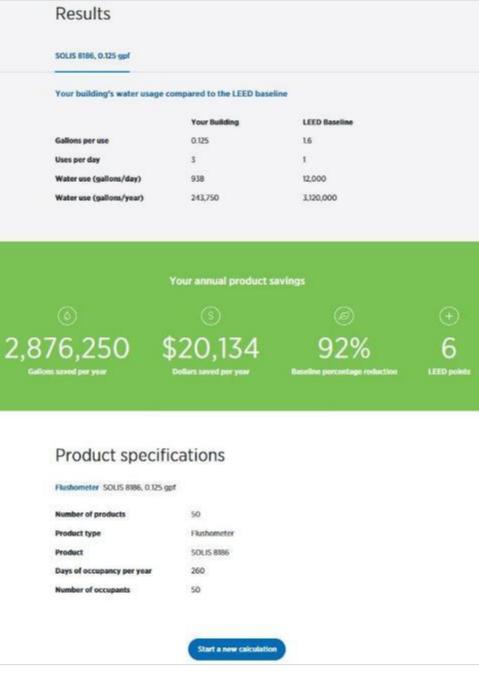


# **Sustainability Calculator**

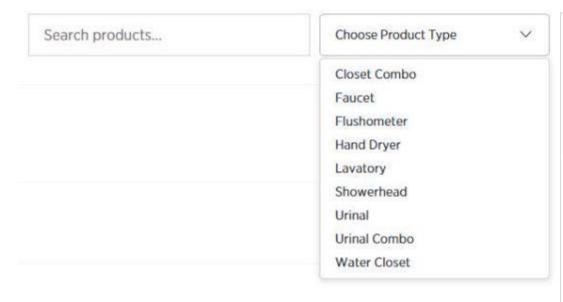


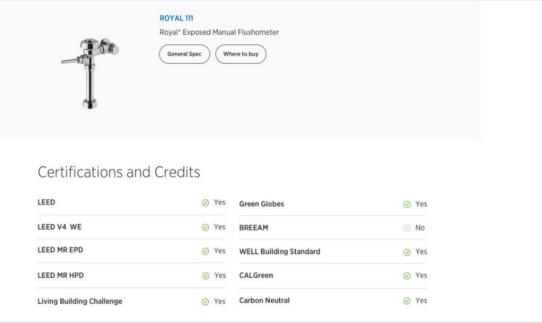
Sloan Sustainability Calculator





### **Green Product Finder**

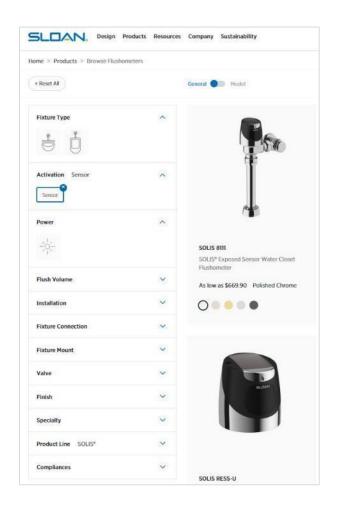


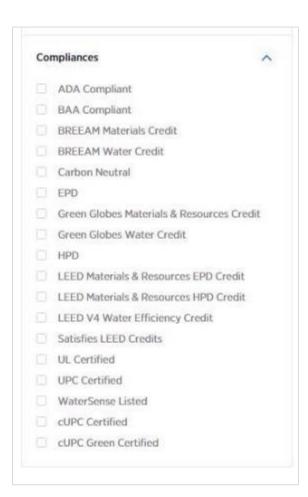


Sloan Green Product Finder



## **Compliance Filter**





Flushometer Compliance Filter

Faucet Compliance Filter

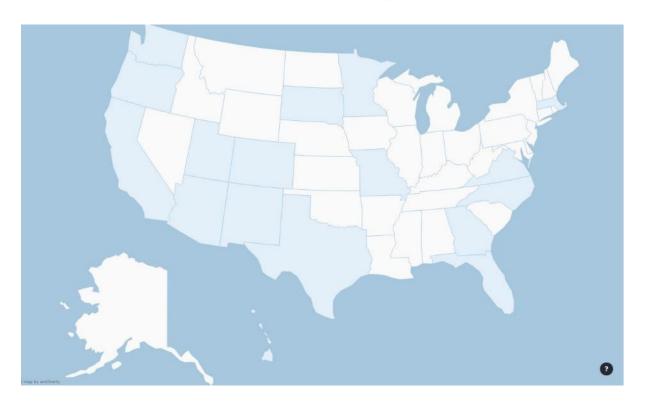
Sink Compliance Filter



### **Product Rebate Finder**

#### Sloan Product Rebate Finder

Georgia



#### PAULDING COUNTY, GEORGIA

\$50 for 1 HET - Residential only

770-222-6850 • Website

#### CITY OF GRIFFIN, GEORGIA

\$100 for HET - Residential only

770-229-6424 • Website

#### COBB COUNTY GOVERNMENT, GEORGIA

\$100 for HET - Residential only

770-419-6244 • Website

#### METROPOLITAN NORTH GEORGIA WATER PLANNING DISTRICT, GEORGIA

\$100 for HET - Residential only

404-463-8645 • Website



## Summary

- Sloan is a private company owned and managed by the descendants of William Elvis Sloan (4<sup>th</sup> generation)
- Innovation, Water Conservation and Sustainability are part of our DNA
- Sloan has more EPDs, HPDs, and WaterSense certified commercial restroom products than any other manufacturer in our industry
- Contact our Customer Service and Tech Service teams if you need help navigating our extensive product lines
- Your local Sloan Rep is your best resource for water conservation knowledge and local expertise





## Find your local Sloan representative for more information

#### Sloan Rep Locator tool

- Local code knowledge
- Familiarity with existing sites
- Product knowledge
- Available for onsite consultation

#### **Sloan Customer Care Center**

Phone: 800.982.5839

Hours: 7:00 AM - 5:00 PM (CST) Monday – Friday

customer.service@sloan.com

#### **Sloan Technical Support**

P: 888.756.2614 F: 800.737.3061

techsupport@sloan.com

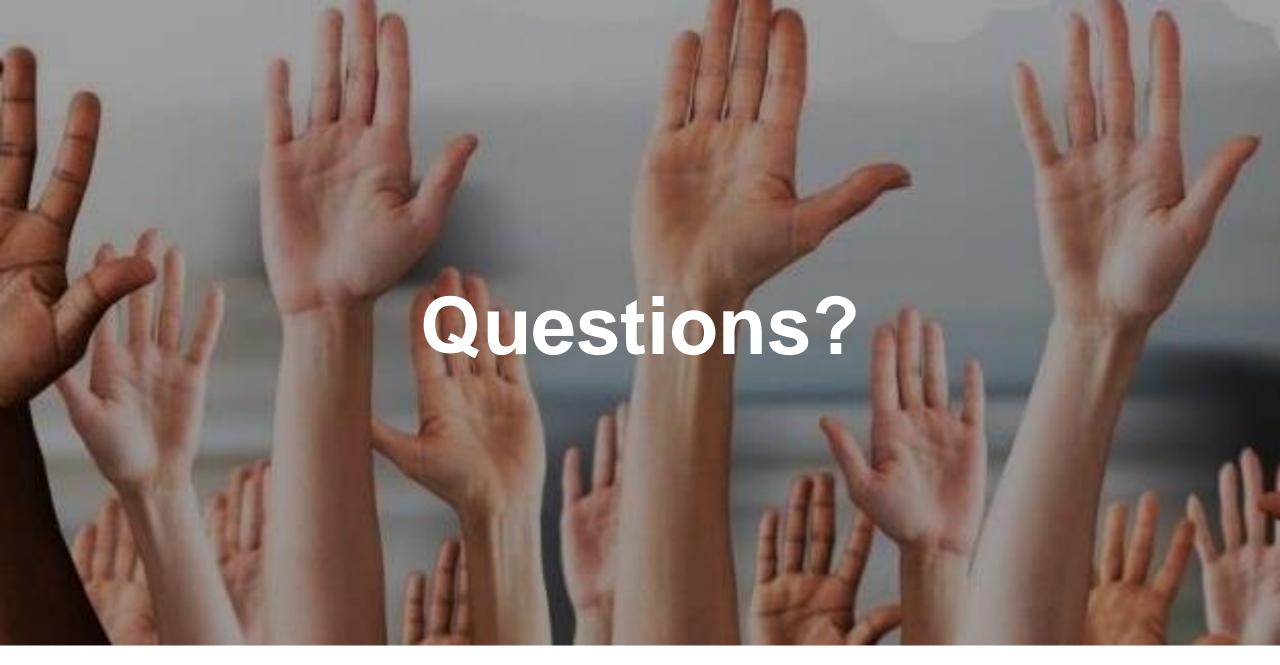














## **Upcoming Sloan Training Webinars**



September 10<sup>th</sup>

Sloan Special Finishes Overview



September 24<sup>th</sup>

Introduction to the Tooshlights Restroom Traffic Management System



October 8th

Introduction to Sloan ASSE-1070 Compliant Anti-Scald Faucet Technologies



October 22<sup>nd</sup>

Sloan Wireless Product Technologies Overview and Updates



## **Upcoming Sloan Training Webinars**







November 5<sup>th</sup>

Flushometer Care and Service 101 – Part 2 Manual Piston Flushometers November 19<sup>th</sup>
Introduction to Sloan
Hand Dryers

December 3<sup>rd</sup>

Flushometer Care and Service 101 – Part 3

Top Mount Sensor Flushometers



# Training Comments, Questions, or Suggestions?

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