TOILETS ARE NOT TRASHCANS!
PREVENTING INAPPROPRIATE FLUSHING

City of Kirkland, Department of Public Works
City of Vancouver, Department of Public Works
Overview

A Nationwide Problem
Nationwide Players Addressing Issue
The Non-Woven Market
Costco Summit
Legislative Efforts
Documenting the Problem
Documenting the Costs
Media / Outreach
Nationwide Problem

Courtesy Portland (ME) Water District

Courtesy Orange County (CA) Sanitary Sewer District
Nationwide Problem

Clogs pipes and pumps
Maintenance Costs
Disposal Costs
Engineering Costs
Proliferation of convenience products
Confusion of flushable vs. non-dispersible
Who are the Players

- WEF, WEF CSC, & WEF HOD
- INDA
- Maine Wastewater & Portland Water District
- Orange County Sanitation District
- New England WEA
- NACWA
- APWA
- Kirkland & Vancouver, Washington
- California Water Associations
- Canadian Water & Wastewater Association
- WERF
What is Nonwoven Fabric?

Sheet or web structures bonded together by entangling fiber or filaments (and by perforating films) mechanically, thermally, or chemically. They are flat, porous sheets that are made directly from separate fibers or from molten plastic or plastic film.

They are not made by weaving or knitting and do not require converting the fibers to yarn.

“Spunlaced” “Meltblown”

“Hydroentangled” “Air Laid”
Global Spunlaced Technology Markets and Trends 2011-2016

Purchase!
Rapid global growth of spunlaced/hydroentanglement technology and end-uses

Outlook for Worldwide Spunlaced Nonwoven Production

Cost
INDA Members: $1,995
Non-Members: $2,795

Follow us on:
The Costco Meeting

- Goals and Outcomes
- Actions and Interactions
- “Improvements” to Packaging
- Plea for Replication/Champions
IMPORTANT FLUSHABILITY INFORMATION:
Kirkland Signature™ Moist Flushable Wipes comply with all industry guidelines and are proven to pass through a home's well-maintained toilet, pump and drain line without clogging. The wipe is very different than other wipes and made of a special dispersible material that breaks apart into smaller pieces due to mechanical action of flushing process.

Are Kirkland Signature™ Moist Flushable Wipes really flushable?
Yes, Kirkland Signature™ Moist Flushable Wipes comply with industry guidelines and are proven to pass through a home's well-maintained toilet, pump and drain line without clogging. The wipe is very different than other wipes and made of a special material that breaks apart into smaller pieces due to mechanical action of flushing process.
For a fresher clean
Culprits

Our moist flushable wipes are better than dry toilet paper alone.
- Ultra-soft cloths are larger and thicker than the national brand
- Gently soothes with aloe and vitamin E
- Flip-top lid keeps wipes moist
- 10 packs of 60 wipes

The Costco Meeting
Culprits

Anything that can be drained or flushed
Legislative & Legal Efforts

- States (Maine, CA, NJ) proposed legislation & status
- National Legislation – Earl Blumenauer
- Federal Trade Commission
- Should local municipal governments take on bans, restrictions?
All Current Legislation relies on the INDA Flushability Guidance Document (Maine, NJ), or Toilet Paper (CA) as the standard to determine "Flushability"

Maine is requiring INDA and MWWCA to work together on a consumer education project targeted at Baby Wipes
Proposed Legislation

- 2010 – AB 2256 California
  Proposed labeling and third-party verification of dispersibility, and fines for non-compliance
  Inactive NOV 2010

- 2011 – LD 781 Maine
  Proposed establishing standards for products advertised as flushable
  Under review MAY 2013
Maine’s Legislative History Timeline

PUMP CLOGS IN MAINE: A HISTORY

2005
Portland Water District (PWD) is one of first utilities in nation to use public outreach to address pump clogging issues caused by wipes and similar materials.

2009
July 2009
Maine communities report increased pump clogs caused by non-dispersible consumer products. INDA releases revised Flushability Guidelines.

2010
April 2010
MWWCA features its first “Pump Clogging” technical session at Spring Conference.

2011
January 2011
MWWCA sends member survey. 90% of the 58 responses indicate that “wipes” cause problems in their systems.

2012
November 2012
INDA implements large survey to gather consumer data. NEWEA, NACWA, APWA are engaged in issue; disagree w. INDA on key points.

2013
January 2013
MWWCA helps develop NEWEA Position Paper. MWWCA and INDA update Maine legislature on progress, goals.

With our partners in Maine and around the country, Maine WasteWater Control Association (MWWCA) advocates for consistent labeling and marketing of wipes and similar consumer products to reduce the burden on municipal wastewater departments and districts.

Blumener Introduces the Water Protection and Reinvestment Act

Wednesday, 01 August 2012 16:11

Would Provide Desperately Needed Investment in America’s Clean Water Infrastructure

WASHINGTON, DC – Today, Congressman Earl Blumener (OR-3), introduced the Water Protection and Reinvestment Act of 2012 (HR 6249), a bill that will provide a deficit-neutral, consistent, and protected source of revenue to help states replace, repair, and rehabilitate critical wastewater treatment facilities.
Bans can happen

Plastic Bag Ban

Seattle plastic bag ban effective July 1, 2013

- Printable ban flyer - English and translated versions
- Point of purchase card (yes) - For retailers who carry paper bags
- Point of purchase card (yes) - For retailers who only have acceptable plastic bags
- Read ordinance 123775

Retail business survey results and progress report - January 15, 2013

- Retail survey results summary (yes) - Survey questions and response data
- Retal store survey and six-month progress report (yes) - Survey report to City Council

Here’s what the law does:

- Prohibits all Seattle retail stores from providing customers with single-use plastic carryout (shopping) bags, including those advertised as compostable, biodegradable, photodegradable or similar.
- Allows retail stores to provide customers with any size recyclable or reusable bags.
- Mail order and online stores that deliver to customers are not affected.

The Issaquah City Council recently adopted an ordinance that bans single-use, plastic carryout bags at retail stores.

What the ordinance does:

- Bans plastic bag sales from Seattle customers with single-use plastic cannot have

Los Angeles Times - BUSINESS

MONEY & CO.

Californian Senate looks at statewide plastic bag ban

Today's Local News

Time to start paying, Eugene.

Paying for paper: that is.

Albertsons

Vancouver, Washington

City of Kirkland, Washington

The Register-Guard

EUGENE GOVERNMENT

Plastic bag ban begins

Published: 12:00 A.M., MAY 1

Comments 35 | Email Share 135 | Tweet 11 | Recommend 299
Cooperative Projects

- INDA/MWWCA/WEF CSC field studies in Portland, ME
- Consumer Focus Groups and Surveys
- Promise to upgrade Non-flushable Labeling
- Wastewater Industry to review and comment on FGD Edition 3
- Presentation at the 2012 INDA World of Wipes Conference
- Conference Calls – WEF Non-Dispersible WG
- Emerald Planet Video Proposal
INALA has proceeded unilaterally
So...

- Wastewater Industry needs to develop its own standard for *dispersability* for “Flushable Labeled” Wipes and *placement and size of DNF Labeling for Non-flushable Wipes*

- We need to pursue regulatory (legislation) and legal avenues

- We need to document

- We need to push for wipes that are flushed due to contamination, to be made of a *flushable substrate*
What’s happening now

- NEWEA has developed a Position Paper
- MWWCA/INDA Consumer Education Project moving forward slowly
- Literature Search of INDA Dispersability Claims
- We are testing products and looking at False Advertising Claims - FTC
- WERF Targeted Collaborative Research Project (TCR) – Dispersability and DNF Labeling Standard
- Independent 3rd Party testing of flushable products – but to our standards not INDA’s
Federal Trade Commission
Status Update

- Sylvia Kundig – FTC San Francisco Office Representative
- 415-848-5188
- skundig@FTC.gov

- wwwFTC.gov Green Guide
What Can YOU Do?

- Network & Collect and Document Data
  - Preventative and corrective maintenance tasks in sewers/pump stations/treatment plants
  - Labor hours/costs
  - Equipment repair/replacement costs
  - Fuel Costs
  - Debris Hauling fees
  - Blockages, SSO events and fines
  - Document your “deragging” costs and share with others
  - Testing new “Incident Report” from SCAP
Next Steps: Other options and ideas? Put Non-Dispersibles in the Trash, Not the Sewer

- Sanitary and/or Combined Sewers are not an effective or proper way to move non-dispersibles to the landfill.
  - Sustainability – long term
  - Water Conservation
  - Energy Conservation
  - Extended Producer Responsibility
  - Lower our labor needs
  - Help update INDA Voluntary Guidelines Rev. 3
TOILETS ARE NOT TRASHCANS!
PREVENTING INAPPROPRIATE FLUSHING

City of Kirkland, Department of Public Works
City of Vancouver, Department of Public Works
Field Study #1 – Bench Top

Toilet Paper after 5 minutes

Wipes after 24 hours
Toilet Paper after 40 seconds

Wipes after 16 hours
Maine WWCA / Portland (ME)
WEF Collections System Committee
INDA / Kimberly Clark / Proctor & Gamble

STANDARD OPERATING PROCEDURE
FOR EVALUATING MATERIALS IN PUMP CLOGS AND SEWER OBSTRUCTIONS
- Maine Wastewater Control Association
### SOP – Evaluation Form

**Maine WasteWater Control Association**
**Data Entry Form**
**SOP for Evaluating Materials in Pump Clogs and Sewer Obstructions**

**Municipality:**
Portland

**Location:**
Thompson’s

**Nature of interference (pump clog, sewer obstruction, other):**
Pump Clog

**Date:**
April 23rd/12

**Weather Conditions:**
Heavy Rain

**Operator(s):**
Mike Penny & Ed Cash

Rinsing materials in a bucket prior to screening may make it easier to separate and identify individual materials.

<table>
<thead>
<tr>
<th>Material</th>
<th># of Piles</th>
<th>% of Total (# Piles / Total # Piles)</th>
<th>Tear (Yes or No)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Towels</td>
<td>1</td>
<td>15% (1/7)</td>
<td></td>
<td>C-fold towels or serrated edge.</td>
</tr>
<tr>
<td>Cleaning or Other Large Wipes (8-12” on longest side)</td>
<td>2</td>
<td>20% (2/10)</td>
<td></td>
<td>Often have a perforated or serrated edge. Include shop towels, medical wipes, and “Swiffer” type pads here.</td>
</tr>
<tr>
<td>Baby Wipes (Medium: 8” on longest side)</td>
<td>3</td>
<td>40% (3/7.5)</td>
<td></td>
<td>Include all embossed or imprinted wipes here.</td>
</tr>
<tr>
<td>Personal Wipes (Small: 2 8” on longest side)</td>
<td>.5</td>
<td>7.5% (1/13.3)</td>
<td></td>
<td>Include makeup remover pads, hemorrhoid wipes, hand wipes.</td>
</tr>
<tr>
<td>Hygiene Products</td>
<td>.5</td>
<td>7.5% (1/13.3)</td>
<td></td>
<td>Include tampons, tampon applicators, and sanitary pads as well as adult diapers.</td>
</tr>
<tr>
<td><strong>Plastics</strong></td>
<td>.5</td>
<td>7.5% (1/13.3)</td>
<td></td>
<td>Stirrers, Wrapped</td>
</tr>
</tbody>
</table>

| Total # Piles | 7 |

If you are unable to separate materials, generally describe what you see:

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[City of Kirkland, Washington]

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30
SOP – Evaluating Materials in Pump Clogs & Sewer Obstructions

42% Paper Products
24% Baby Wipes
17% Feminine Hygiene Products
8% “Flushable” Wipes
10% Other

Courtesy PWD, MWW, WEF CSC
90% +/- of the products removed from the sewer during the test are non-flushable

The “Flushable Products” do not have a lot of structural strength and tear easily

Paper, specifically paper towels from public restroom dispensers, is a major issue

Baby Wipes are indestructible squares of plastic

Courtesy PWD, MWW, WEF CSC
Field Study #3 – Toilet Flushable Test
Parsa NJ
Field Study #3 – Toilet Flushable Test
Parsa NJ
Field Study #3 – Toilet Flushable Test
Parsa, NJ
Field Study #4 – Dyed Wipes Sewer Test
Vancouver, WA

Three Drop Sites
1. Manhole 800 feet from MP plant
2. Manhole 1000 feet from WS plant
3. Manhole 5000 feet from WS plant
Field Study #4 – Dyed Wipes Sewer Test
Vancouver, WA

5 minutes
These wipes went through a pump
Field Study #4 – Dyed Wipes Sewer Test
Vancouver, WA

14 minutes in sewer
Red – Kirkland wipes
Orange – Baby wipes
Field Study #4 – Dyed Wipes Sewer Test
Vancouver, WA

45 minutes in sewer
Red – Kirkland wipes
Blue – Baby wipes
Field Study #4

INDA ES – Flushability Assessment

(2008)
No evidence of clogging in sewer pipe
No pump failure or significant accumulation in pump
>95% product observed in screening material after 24 hrs
>95% product observed in screening material after 24 hrs
>80% of product observed in grit material after 24 hours

Behave similarly to other suspended wastewater solids in primary clarifier
No > 5% of product observed in effluent of treatment plant
Product indistinguishable from other aerobically and anaerobically digested solids
No > 5% of product observed in screening material after 24 hours
All newer stations – 1990s

Pumps have been replaced before end of useful life

Removed ones 10 – 15 years old
Expected useful life 30 years
Vancouver Experience

$ 78,000 **annually** in maintenance (deploy crew to de-rag pumps)

$ 30,000 **annually** in additional electricity costs to run pumps that are clogged

$ 900,000 new pumps and equipment

From 2008 – 2013

429 tons rags / debris - 2012
Vancouver Experience

“Neighborhood areas”

Eight stations retrofitted so far

$160,000 new pumps

Deferred $50,000 annual maintenance cost
Assessing Costs in Your Area:

- 25% additional electric costs — if your pumps clog in 24 hours
- Account all maintenance hours for unclogging pumps or pipe — the baseline should be zero
- Account landfill costs — assume a % based on your observations
- Track capital costs for pump and equipment replacement
### SCAP
NON-DISPERSIBLES INCIDENT REPORT

<table>
<thead>
<tr>
<th>Describing this incident please provide estimates of:</th>
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<tbody>
<tr>
<td>Staff Labor Hours Used Including Travel Time:</td>
</tr>
<tr>
<td>Contractor Hours Used If Any:</td>
</tr>
<tr>
<td>Equipment Used:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Total Labor Cost ($)</th>
<th>Estimated Total Equipment Cost ($)</th>
<th>Estimated Cost of Damage if Equipment or Components Needed Replacement:</th>
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<tr>
<th>Total Estimated Cost of this Incident ($)</th>
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<th>Did the incident cause a sewage spill?</th>
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<tr>
<td>Yes</td>
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If yes, provide estimated volume of spill as also provided to CIWQS in CA.: ________ Gallons

Additional comments or information you have that you feel is important to provide that was not provided in the fields above:

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Contact Name and Phone Number or Email Address for SCAP follow up:

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Upon completion, please email or fax form and supporting documentation to John Pastore, Executive Director, SCAP at jpastore@scap1.org or fax # 760-479-4881. www.scap1.org
Message: Keep it Simple
Smart Bunnies Know
Flush Only Toilet Tissue

OTHER PRODUCTS WILL PLUG THE PIPES!

It's a fact. Wipes, diapers, cloths, feminine hygiene products and other "disposable" or "flushable" items may be handy to use, but they should NEVER be flushed in your toilet, no matter what the label says. These products don't break down like toilet tissue. They just plug plumbing, pipes, pumps and treatment facilities, costing thousands of dollars and making a big MESS!

Be smart. Flush only toilet tissue.
Vancouver – KOIN TV

Portland Water District (ME)
https://www.youtube.com/watch?v=wQsoQznU_z0

Spokane, WA
http://www.spokanewastewater.org/WillItFlushVideo.aspx

King County, WA
http://www.seattlechannel.org/videos/video.asp?ID=5900&file=1

London, England Sewer Singers
http://www.youtube.com/watch?v=ejBMF2Ka6mA

NACWA Website
We must become the change we want to see. Gandhi