# Green Purchasing – Has It Wilted On The Vine?

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# QUESTIONS, ANSWERS, COMMENTS (nice)

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# PREMISE AND INTRO

- Municipal and County Officials get little exposure to “Green Purchasing”
- Not only Purchasing Agents, but every Department should be involved in knowing the pros and cons
- The CFO should work closely with the purchasing person to develop efficiencies and long term financial realities
- COVID threw a wrench into the works

# GREEN PRODUCT PURCHASING

- Dr. Kenneth Lyons
- Fall 2018
- ‘“Green Product” means any commodity or service that has a lesser or reduced negative effect on human health and the environment when compared with competing commodities or services.”

# WHAT IS THE PURPOSE OF GREEN PURCHASING?

- Reduce carbon footprint
- (Lyons) Reduce negative impact of health and the environment
- Waste Reduction
- Increased worker safety
- Long term reduction in labor and purchasing costs
- Conserve resources

# EXAMPLES (Lyons)

- Reduced packaging
- Toxicity
- Reusability
- Energy Efficiency
- Recycled Content
- Rebuilt/remanufactured products

# CHANGES TO PUBLIC POLICY

- IS THIS STILL APPLICABLE 2 YEARS LATER?
- What has happened in the interim?
  - De-regulation of certain industries
  - Leaders calling environmental rules "burdensome"
  - Abandonment of the Environmental Impact Statement?

# CHANGES TO PUBLIC POLICY

- Pulling out of Paris Climate Agreement
- Scraping or marginalizing the Clean Power Plan
- Toxic Air Pollution regulations loosened
- Rescission of methane flaring rules
- Changing vehicle emission standards

# WATER AND WILDLIFE

- Revoking flood standards
- Changing definition on what is Federally protected
- NJ – water standards have changed twice since 2018 – PFNAs /PFOAs
- Seismic air blasts permitted for oil and gas drilling
- Change of Endangered Species Act
- Changing/eliminating Migratory Bird Act

# CHANGES TO PUBLIC POLICY

- Increasing areas for mining and drilling
- Permitting increase in logging
- Climate change no longer “exists” at worst or, at least, is no longer a priority
- EPA prosecution of environmental violations.

# WHAT DOES THIS MEAN TO ME AS A COUNTY/MUNICIPAL EMPLOYEE

- The Elephant in the Room?
- Am I spinning my wheels?
- The Green Purchasing Agent

# PURCHASING CONCERNS

- Raw Materials
- Manufacturing
- Transportation
- Use
- Disposal

# USE

- Before anything is purchasing, the correct and appropriate use should be determined
- Is there a safety factor involved regarding the product to be purchased
- Is there a life expectancy
- What's the maintenance and how are you going to get rid of it.

# DISPOSAL

- Cradle to Cradle ( William McDonough and Michael Braugart : “all waste becomes fodder for something else
- Is the product recyclable
- Can it be broken down to use for part (a second life)


SOYLENT
GREEN

# THE BUY-IN

- In order to have an effective “green purchasing” program at the municipal and county level, you have to have a philosophical “buy-in” from the leadership.
- Cost effectiveness
- COVID19 effect?

# ECOSYSTEMS

- Natural Ecosystems ( linear)
- Plants grow in soil
- Animals eat plants
- Dung replenishes soil

- WHAT CHANGED THIS?

# TRASH PROBLEM

- Blame it on the Phoenicians/ Romans
- Population Growth
- Move aware from returnable/refillable containers
- Chemicals solve everything
- Mass production
- Disposable society

# RECYCLING

- “Circular Economy”
- Each YEAR over

92 Billion tons of resources

Enter the global economy.

Only 11% comes from recycled sources such as Treated water, recycling, or’ Biogas.

# “Copenhill” Denmark

# Example: Aurubis ( Germany)

- Copper smelter
- Built at the height of WWI
- Europe replacing landfills with municipal incinerators
- Electronic debris

# WASTE

- 2/3rds of the material going through the economy (approx. 67 billion tons) gets emitted as pollution – carbon from fossil fuels or trash/garbage etc.
- Worldwide, only about 1/5$^{th}$ of electronic waste is recycled.

# PLASTICS

- Headlines:  whale dead on beach 88 pounds of plastic in stomach
- 91% of plastic is not recycled (National Geographic)
- 300 million tons of plastic each year – approximately half is single source
- Concrete dam of disposable diapers in sewer system.
- 40% of plastics are single use


I JUST WANT TO SAY ONE WORD TO YOU...
PLASTICS

# PLASTIC

- About 332 million tons of plastic were produced worldwide (2015)
- An average vehicle is 50% plastic materials(2015) to grow to 75% by 2020.
- Firefighters
- Military

# PLASTIC, PLASTICS EVERYWHERE

- Nano plastics
- Micro Plastics
- Macro Plastics

- Are they a threat
- How do you protect against them

# SOBERING STATISTIC

- People, across the world unwittingly consume roughly 5 grams of plastic each week in the course of daily life, or about the weight of a credit card… That's about 250 grams per year – more than ½ pound of plastic every twelve months.

# FIXED ASSET INVENTORY

- Challenge : How much of your fixed asset inventory is plastics?
- Trash bags, cups, utensils, packaging
- Medical devices
- Vehicles
- Fiber (most widely used plastic)

# WATER PFOAS PFNAS

- EPA: “Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don’t break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects.

# PFOAS PFNAS

- Food packaged in PFAS-containing materials, processed with equipment that used PFAS, or grown in PFAS-contaminated soil or water.
- Commercial household products, including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products, and fire-fighting foams (a major source of groundwater contamination at airports and military bases where firefighting training occurs).

- Workplace, including production facilities or industries (e.g., chrome plating, electronics manufacturing or oil recovery) that use PFAS.
- Drinking water, typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).
- Living organisms, including fish, animals and humans, where PFAS have the ability to build up and persist over time.

# PFOAS PFNAS and the PURCHASING AGENT

- PFNAs used in the manufacture of high performance plastics and products such as Teflon
- Do you/should you ask that in your specs?
- What about disposal of these products or products you have previously purchased that contain PFNAs
- Example Teflon is/was used in cookware and widely used fabric protectors

# ITS EVERYWHERE

- PFNA has been detected in polar bears in concentrations over 400 parts per billion. PFNA was the perfluorinated chemical measured in the highest concentration in Russian Baikal seals.

# FOREVER CHEMICALS

- Jun 1, 2020 article “NJ gets strict on cancer-causing ‘forever chemicals’ in drinking water.
- PFOAS and PFOS
- Mark Ruffalo “Dark Waters’
- 13 part per trillion (NJ)
- Required testing
- DEP cited several chemicals companies

# PFOA

- PFOA and some similar compounds can be found at low levels in some foods, drinking water, and in household dust. Although PFOA levels in drinking water are usually low, they can be higher in certain areas, such as near chemical plants that use PFOA
- So, what is your role?

# TIME FOR THE QUIZ QUESTION

# REAL LIFE – ENERGY STAR

- Energy Star (brand owned by the EPA)
- Created in 1992  to help consumers identify energy efficient and thus more cost effective products.
- A study conducted by the Government Accountability Office (GAO) concluded that the program, meant to encourage manufacturers of household appliances to produce those that conserve energy -- which can mean energy savings, as well as rebates, for consumers -- is highly vulnerable to fraud and abuse.

# REAL LIFE – LED LIGHTING

- Energy efficient standards for light bulbs were due to go into effect January 1, 2020
- About 6 billion light bulbs effected by the change
- Precept behind the original regulations were reduction of carbon emissions and consumer money savings.  Forbes Magazine

# COVID EFFECTS

- Purchases
- Carbon emissions
- Pollution

- Deforestation of Amazon rainforest
- Poaching in Africa
- Economic fallout – slow any green energy technologies

# CONCLUSIONS

- Are people still willing to “Go Green”?
- How has COVID19 effected purchasing both from an ethical stand point and a philosophical standpoint?

# Green Purchasing – Has It Wilted On The Vine?

- Increased reliance on plastics
- Ever changing regulations (both more strict and more lenient)
- A “manufactured” drop in the fervor for climate change and long range effects.
- Little buy-in at the top

# WHAT HAVE WE DONE?

- Banning straws, single use plastics
- Increased education about recycling (double edged sword)
- Increased “community garden-type projects”
- Increased PPE – in all aspects

# WHAT MORE CAN WE DO?

- Painting your roof white
- Conversion from oil to gas
- Solar?
- Energy efficient boilers and generators.
- Promote use of reusable bottles
- Install bottle fillers with water fountains