Radioactive Wastes: 
*Hidden Dangers for the Great Lakes & Our Fresh Water Supply*

Kevin Kamps, Beyond Nuclear 
GLEA, Port Huron, MI 
Feb. 2, 2016
“Water, water everywhere
Nor any drop to drink”

Rime of the Ancient Mariner, by Samuel Taylor Coleridge, 1798

Alice's Adventures in Wonderland and Other Tales, by Lewis Carroll, 1865
Stop the Great Lakes Nuclear Dump Video

https://www.youtube.com/watch?v=s6C4ClH17U
STGLND Resolutions

184 Resolutions have been passed opposing OPG’s Proposed Nuclear Waste Dump as of January 18, 2016

Communities in Canada and the US (Pop. = 22.7 million), the National Association of Counties representing 3,069 US counties (Pop. = 255 million) & the Great Lakes Legislative Caucus representing lawmakers from 8 Great Lakes States, Ontario and Québec are saying NO to OPG’s Proposed Nuclear Waste Dump

www.StopTheGreatLakesNuclearDump.com
Petition Signatures

**STGLND**
- 92,830
- [https://www.gopetition.com/petitions/stopthegreatlakesnucleardump.html](https://www.gopetition.com/petitions/stopthegreatlakesnucleardump.html)

**Sum of Us**
- 57,733
Canadian Decision Makers

Prime Minister Justin Trudeau

Environment and Climate Change Minister Catherine McKenna
DUD decision by March 1st

Justin.Trudeau@parl.gc.ca  Catherine.McKenna@parl.gc.ca

Urge them to decide

NO!
After Flint, Don’t Let Them Nuke the Great Lakes Next!

- Grassroots Voices Grow
- MDEQ & EPA Heads Roll
- Lead & Radioactivity
- Great Lakes Clean, Safe Drinking Water at Radioactive Risk?!
- Whistleblowers
- From Flint to the Great Lakes
- From Radioactive Racism to Environmental Justice
Grassroots Voices in the Wilderness Grow to a Bi-National Groundswell

2001-2011
• Kay Cumbow & others raise alarm, beginning in Blue Water area, as do colleagues like Irene Koch on Canada-side
• Grassroots education and organizing (Don’t Waste MI, CACC, GLU Nuclear-Free/Green Energy Task Force, etc.)
• Demand made to CNSC for Comprehensive Review

2011-2016
• Formation of groups likes STGLND & SOS
• 2013-2015 Joint Review Panel proceedings – scores of intervenors, hundreds of filings
• Bipartisan MI State Senate involvement
• Bipartisan, bicameral U.S. congressional involvement
Heads roll at MDEQ and EPA After Contemptible Betrayal of Flint’s Right to Clean, Safe Drinking Water

MDEQ Director Dan Wyant

MDEQ Spokesman Brad Wurfel
US EPA Region 5 Administrator
Susan Hedman
Lead and Radioactivity Share a Lot in Common, When It Comes to Harming Children and Other Living Things

**Lead (Neuro-Toxic Heavy Metal)**
- Health damage, especially in children, is irreversible;
- No safe level for lead contamination in drinking water;
- Lead can even harm human DNA, and thus pass damage on to future generations;
- Lead contamination in water cannot be smelled, tasted, or seen.

**Ionizing Radioactivity**
- Children are the most vulnerable;
- There is no safe level of exposure to ionizing radiation;
- Health damage accumulates over a lifetime;
- Radioactive substances (including tritium) are harmful to DNA, and can cause genetic damage (in addition to cancer and birth defects).
The Great Lakes as a Source of Clean, Safe Drinking Water, Now to be Put at Radioactive Risk?!

- Drinking water supply for 40 million people in eight U.S. states, two Canadian provinces, and a large number of Native American First Nations
- 21% of the world’s surface fresh water
- 84% of North America’s surface fresh water
- Lake Huron is, once again, Flint’s drinking water source
Snyder Administration and EPA First Bash Whistleblowers, and Now Call on Them to do Their Job to Protect Public Health and Safety!

Gov. Rick Snyder

EPA Administrator Gina McCarthy
The EPA Guy: Miguel Del Toral, a manager for Midwest water division
Other Flint Water Disaster Heroes

The Momma Bear: LeeAnne Walters

Sarah Sauer, Morris, IL
Flint Heroes

The Pastor: Bobby Jackson

The Prof: Marc Edwards
Dr. Marc Edwards:

“I didn’t get in this field to stand by and let science be used to poison little kids. I can’t live in a world where that happens. I won’t live in that world.”

*Washington Post*, “The heroic prof. who helped uncover the Flint lead water crisis has been asked to fix it,” by Colby Itkowitz, Jan. 27, 2016
Flint Heroes: The Doctor, Mona Hanna-Attisha
Blowing the Whistle on the DUD

Dr. Frank Greening, OPG Scientist

- Radioactivity levels lowballed by orders of magnitude;
- Warnings about flammable and explosive zirconium metal;
- 2009 Bruce NGS worker alpha contamination inhalation exposure disaster.
From Flint, to the Entire Great Lakes Basin

Toledo, OH, early Aug. 2014
Flint, MI, April 2014 to present
Flint \times 400

\frac{40,000,000}{100,000} = 400
Dilution is NOT the solution to radioactive pollution!

Speaking truth to power

- John LaForge, Nukewatch WI, v. DGR proponents re: dilution in Lake Huron
- Michael Keegan: “‘Dilution as the solution’ is a delusion.”
- Bio-accumulation, bio-magnification, bio-concentration

Dr. Rosalie Bertell, author, IICPH co-founder, & IJC Nuclear Task Force member
From Radioactive Racism, to Environmental Justice

Michael Moore, Flint native

“Flint Poisoning is a Racial Crime”

“Everybody knows that this would not have happened in predominantly white Michigan cities like West Bloomfield, or Grosse Pointe, or Ann Arbor. Everybody knows that if there had been two years of taxpayer complaints, and then a year of warnings from scientists and doctors, this would have been fixed in those towns.”
Radioactive Racism

SRS, Barnwell, Shell Bluff

Vogtle 1, 2, 3, 4
Winona LaDuke, Ojibwe EJ activist,
Honor the Earth

“The greatest minds in the nuclear industry have been hard at work, for over 50 years, to find a solution to the radioactive waste problem. They’ve finally got it: haul it down a dirt road and dump it on an Indian reservation.”
Grace Francis Thorpe, NECONA

NoTen O Quah
(Woman of the Power of the Wind
that Blows Up Before a Storm)

March 2009 Women’s History Month,
“Women Taking the Lead to Save our
Planet,” Presidential Proclamation:

Grace Thorpe, another leading
environmental advocate, also
connected environmental protection
with human well-being by emphasizing
the vulnerability of certain populations
to environmental hazards. In 1992, she
launched a successful campaign to
organize Native Americans to oppose
the storage of nuclear waste on their
reservations, which she said
contradicted Native American
principles of stewardship of the earth.
She also proposed that America invest
in alternative energy sources such as
hydroelectricity, solar power, and wind
power.
Saugeen Ojibway Nation

DGR/DUD

Bruce NGS
DGR2 – HLRW bait and switch
What You Can Do to Help Save the Great Lakes!

Obama speaks to the nation about the BP Gulf disaster

Contact President Obama
Urge him to order Secretary of State John Kerry to activate the U.S.-Canadian International Joint Commission (IJC), to conduct a comprehensive review of the DGR’s risks to the Great Lakes.

https://www.whitehouse.gov/contact
S. 2026, Stop Nuclear Waste by Our Lakes Act

Sponsored by U.S. Sen. Stabenow (D-MI)

Co-Sponsored by:

- U.S. Sen. Gary Peters (D-MI)
- U.S. Sen. Mark Kirk (R-IL)
- U.S. Sen. Dick Durbin (D-IL)
- U.S. Sen. Sherrod Brown (D-OH)
- (Baldwin, D-WI, 11/5/15 letter)
H.R. 3483, Stop Nuclear Waste by Our Lakes Act

U.S. Rep. Dan Kildee (D-MI)

Bipartisan, multi-state Nov. 5, 2015 congressional letter to Prime Minister Trudeau

- Moolenar, Duckworth, Bishop, Conyers, Dingell, Lawrence, Levin, Dold, Miller, Benishek, Lipinski, Trott, Kelly, Schakowsky, Duffy, Beatty, Gibson, Fudge, Higgins, Joyce, Slaughter, Kaptur, Nolan, Walorski, Renacci
Cautionary Tale: “Disastrous” Asse II L&ILRW dump, Germany
Cautionary Tale: Morsleben, Germany
L&ILRW dump
Cautionary Tale: WIPP, NM TRU waste dump

WIPP underground fire, early Feb. 2014

Valentine’s Day, 2014 barrel burst
Other Great Lakes Nuclear Issues

Fermi 2, Frenchtown Twp., Monroe County, MI
Fermi 3 ESBWR
Davis-Besse, Oak Harbor, OH
20 MORE years of radioactive Russian roulette on the Great Lakes shore?!
Palisades, Covert, MI
Cook 1 & 2, Bridgman, MI
“Bath Tub Curve” of Reactor Accident Risks

A Bathtub Curve for Nuclear Accidents

- Frequency of Equipment Failure
- Time

- Break-in phase
- Break-down phase

Locations:
- Three Mile Island
- Chernobyl
- Davis-Besse
- Indian Point
Big Rock Point, Charlevoix, MI
Big Rock Pt. radioactive RPV shipment to Barnwell, SC
Big Rock Pt. ISFSI
HLRW barge shipments on Lake Michigan
“HEUNL” (LIQUID HLRW transports!)
Chernobyl + 30