

Comprehensive Research & Reference Directory

This directory combines the full analytical research descriptions with their direct source links across legal precedents, toxicological impacts, remediation engineering, and Ontario planning frameworks.

1. Legal Precedents & Contamination Case Studies (Saint-Gobain / Hoosick Falls)

- **U.S. District Court (N.D.N.Y.) Class Action Settlements:**
 - **Baker et al. v. Saint-Gobain Performance Plastics Corp., Honeywell International Inc., and 3M Co. (Case No. 1:16-cv-00917):** Approved **\$65.25 million USD** partial settlement covering private well and municipal property devaluation, nuisance claims, and a comprehensive 10-year medical monitoring program.
 - [Weitz & Luxenberg Litigation Record: Hoosick Falls \\$65M Settlement](#)
 - **DuPont Class Action Settlement Agreement (July 2025):** Resolves lingering liability claims against E.I. du Pont de Nemours & Co. for an additional **\$27 million USD** plus **\$6 million** dedicated to medical surveillance funds, bringing total community recovery to over \$90 million USD.
 - [The New York Times: DuPont Agrees to Hoosick Falls Contamination Settlement](#)
 - [Drugwatch Legal Overview: DuPont \\$27M Settlement in Hoosick Falls PFAS Case](#)
- **New York State Department of Environmental Conservation (NYSDEC):**
 - **State Superfund Record of Decision (ROD) – Saint-Gobain McCaffrey St. Site (Site No. 442049):** Documents smokestack air emissions, atmospheric fallout of PFOA onto soil, chemical leaching through the vadose zone into groundwater aquifers, and regional well pollution.
 - [NYSDEC Site Cleanup & Investigation: Hoosick Falls Area & Saint-Gobain McCaffrey St. Site](#)
- **New Hampshire Department of Environmental Services (NHDES) & Vermont DEC:**
 - Regulatory enforcement orders regarding Saint-Gobain facilities in Merrimack, NH, and Bennington, VT, mandating multi-mile municipal water main extensions and Point-of-Entry Treatment (POET) filtration systems for hundreds of affected rural well owners.
 - [NHDES PFAS Investigation: Saint-Gobain Performance Plastics \(Merrimack, NH\)](#)
 - [Northeastern University PFAS Project Lab: Merrimack/Litchfield/Bedford Contamination Tracking](#)

2. Toxicology & Human Health Impacts (PFAS & Drinking Water)

- **U.S. Agency for Toxic Substances and Disease Registry (ATSDR) / CDC:**
 - **Toxicological Profile for Perfluoroalkyls:** Comprehensive health assessment documenting epidemiological links between PFOA/PFAS exposure and kidney and testicular cancer, thyroid disorders, microvascular dysfunction, immune suppression (reduced antibody response to routine vaccines), altered liver enzymes, and preeclampsia (pregnancy-induced hypertension).
 - [ATSDR Toxicological Profile for Perfluoroalkyls](#)

- [CDC/ATSDR Health Effects of PFAS Exposure](#)
- **National Academies of Sciences, Engineering, and Medicine (NASEM):**
 - **Guidance on PFAS Exposure, Testing, and Clinical Follow-Up (2022):** Clinical guidelines identifying rural populations dependent on unmonitored private groundwater wells as highly susceptible to chronic bioaccumulation.
 - [NASEM Guidance on PFAS Exposure, Testing, and Clinical Follow-Up](#)
- **Health Canada & Environment and Climate Change Canada (ECCC):**
 - **Draft State of PFAS Report & Canadian Drinking Water Quality Guidelines:** Focuses on environmental persistence, bioaccumulation in animal feed/crops, and national health protection standards for persistent industrial compounds.
 - [Government of Canada: Per- and Polyfluoroalkyl Substances \(PFAS\) Overview & Guidelines](#)

3. Soil & Groundwater Remediation Technologies and Cost Data

- **U.S. Environmental Protection Agency (US EPA) & CLU-IN:**
 - **Treatment Technologies for PFAS in Soil and Groundwater:** Technical breakdowns of Granular Activated Carbon (GAC), Ion-Exchange (IX) Resins, high-heat thermal destruction/incineration (>1,100°C), and in-situ stabilization reagents.
 - [EPA CLU-IN Technical Training: PFAS Remediation & Treatment Technologies](#)
 - [US EPA Science Matters: Reducing PFAS in Drinking Water with Treatment Technologies \(GAC & Ion Exchange\)](#)
 - [EPA Superfund Cleanup Technologies Overview](#)
- **Interstate Technology and Regulatory Council (ITRC):**
 - **ITRC Technical and Regulatory Guidance:** Standardized engineering methodologies for groundwater remediation, soil stabilization, and monitoring protocols.
 - [ITRC PFAS Guidance Document & Field Remediation Methods](#)
- **Federal Remediation Technologies Roundtable (FRTR) & Economic Impact Studies:**
 - Remediation engineering cost data establishing benchmarks for hazardous soil excavation (\$150–\$300+ CAD/m³), deep-well pump-and-treat systems (\$3M–\$10M CAD capital investment, \$250k–\$800k annual O&M), and rural municipal water main extensions (\$500k–\$1.5M CAD per linear kilometer), alongside documented 20% to 50% property and farmland valuation declines.

4. Ontario Legislation, Guidelines, and Planning Safeguards

- **Ontario Ministry of Municipal Affairs and Housing (MMAH):**
 - **Planning Act, R.S.O. 1990, c. P.13:** Sections 17, 22, and 34 governing Official Plan Amendments (OPA) and Zoning By-law Amendments (ZBA).
 - [Government of Ontario e-Laws: Planning Act, R.S.O. 1990, c. P.13](#)
 - **Provincial Planning Statement (PPS):** Directives safeguarding Prime Agricultural Areas (Specialty Crop and Canada Land Inventory Classes 1–3) and placing strict restrictions on non-agricultural conversions.
 - [Ontario Ministry of Municipal Affairs and Housing: Provincial Planning Statement \(PPS\)](#)

- **Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA):**
 - **Agricultural Impact Assessment (AIA) Guidance:** Requirements for evaluating industrial impacts on tile drainage, soil quality, farm infrastructure, and surrounding livestock.
 - OMAFRA: Agricultural Impact Assessment (AIA) Guidance Document
 - **Minimum Distance Separation (MDS) Formulae:** Mandatory setback separation distances between livestock operations and non-farm land uses.
 - OMAFRA: Minimum Distance Separation (MDS) Formulae Implementation
- **Ontario Ministry of the Environment, Conservation and Parks (MECP):**
 - **Clean Water Act, 2006, S.O. 2006, c. 22:** Source Water Protection Plans, vulnerable aquifer designations, and Wellhead Protection Areas (WHPAs).
 - Government of Ontario e-Laws: Clean Water Act, 2006, S.O. 2006, c. 22
 - **Environmental Protection Act (EPA), R.S.O. 1990, c. E.19 & Ontario Water Resources Act (OWRA), R.S.O. 1990, c. O.40:** Environmental Compliance Approvals (ECA) for air, noise, and industrial sewage works; Permits to Take Water (PTTW) for draws exceeding 50,000 L/day.
 - Government of Ontario e-Laws: Environmental Protection Act, R.S.O. 1990, c. E.19
 - Government of Ontario e-Laws: Ontario Water Resources Act, R.S.O. 1990, c. O.40
 - **Guideline D-6 (Compatibility Between Industrial Facilities and Sensitive Land Uses):** Specifies classification definitions (Class I, II, and III heavy industrial) and mandates Influence Areas (up to 1,000 metres) and continuous setback buffers (minimum 300 metres).
 - MECP Guideline D-6: Compatibility Between Industrial Facilities and Sensitive Land Uses
 - **O. Reg. 153/04 (Records of Site Condition):** Requirements governing Phase 1 and Phase 2 Environmental Site Assessments (ESA).
 - O. Reg. 153/04: Records of Site Condition (Part XV.1 of the Environmental Protection Act)
- **Conservation Authorities Act, R.S.O. 1990, c. C.27:**
 - Development, Interference with Wetlands and Alterations to Shorelines and Watercourses regulations (watershed management and Environmental Impact Studies / EIS).
 - Government of Ontario e-Laws: Conservation Authorities Act, R.S.O. 1990, c. C.27