

Understanding Wesleyville

Blue Dot Northumberland delegation to Northumberland County Council
July 31, 2026

1. Blue Dot Northumberland is a group of local citizens advocating for the preservation of farmland and the promotion of sustainable economic development in Northumberland County.
2. The Ontario government and OPG are proposing to build what would be the world's largest nuclear power station at Wesleyville. Based on recent projects and conservative international benchmarks, the plant could cost from 165 to 245 billion dollars, perhaps more, with every dollar of capital, cost overrun, delay, and debt ultimately landing on taxpayers and hydro ratepayers. There is no confirmed reactor design and there is no publicly released cost estimate, yet the assessment process is being rushed forward for expedited approval, with Northumberland County as the proposed host.
3. Our concerns regarding the nuclear plant proposal cluster around four main themes: the economic risks and boom-and-bust impacts of a project of this size; the health, safety, and security implications for people who live and work here; the way this proposal is being pushed forward without a proper analysis of need and alternatives; and the fact that it ties Ontario to an outdated, highly centralized energy vision at a time when the rest of the world is moving toward more distributed, renewable-based systems.
4. Northumberland County has already made a strong and credible submission to the Impact Assessment Agency of Canada. The County argues that the project must be assessed regionally, that upper-tier responsibilities must be formally recognized, and that housing, workforce, transportation, emergency management, paramedic services, and municipal finances must all be modeled and funded at the county scale. This submission supports those concerns and adds a further point: the fact that this is a nuclear project, and potentially the largest nuclear station in the world, makes the consequences of error, delay, and overbuilding far more serious than they would be for an ordinary industrial development.

Boom and Bust

5. A megaproject of this magnitude is the economic equivalent of a hurricane, injecting money into the region while still leaving us worse off. A sudden influx of thousands of highly paid, mobile construction workers can overwhelm a small labour market, pull workers away from farms, local manufacturers, care providers, municipal services, and independent businesses, and create wage pressures that many existing employers cannot

sustain. It can also absorb scarce rental housing, push up rents and home prices, and make life harder for seniors, lower-income residents, essential workers, and young families who are not sharing in project wages. When construction ends, many of those jobs and workers disappear, but the damage to the pre-existing business base can be permanent.

6. Physical and social infrastructure is overwhelmed. Roads, intersections, water and wastewater plants, policing, fire, health care, schools, social services – all try to cope with the sudden increase of thousands of workers, expanding to meet the boom, taking on costs that do not vanish when the project winds down. These stresses extend for tens of kilometres from the location of a plant this size and will impact every community and every local government in Northumberland.

7. When the construction is complete, or when the project is delayed, scaled back, or cancelled, the community is left with the bust side of the cycle: overbuilt or misdirected infrastructure, inflated housing costs, weakened local businesses, and municipal systems stretched to meet a demand surge that no longer exists or never materialized.

8. When the plant is built, jobs tied directly and indirectly to the project disappear faster than they arrived. Local businesses that expanded – bought equipment, took on debt, hired extra staff – now have too much capacity and some fail. Infrastructure built to handle peak loads is under-used but still has to be maintained and renewed. Socially, there is a sense of let-down and division: some residents did well during the boom, others only experienced higher costs and disruption, and now everyone shares the hangover.

9. Because nuclear plants take so long to build, they are especially vulnerable to being overtaken by events. While we are still pouring concrete and dealing with delays and overruns, alternatives keep getting cheaper and better—wind, solar, storage, efficiency, smarter grids. Long before a ten-reactor station could be finished, the economics and the “need” used to justify it in the first place may no longer exist. We have seen this play out time and again in Ontario, including, ironically, at Wesleyville itself. If the County is being asked to function as the shock absorber for the side effects of the project, then it has every reason to ask whether the underlying project is justified in the first place.

10. The County warns that Northumberland already has constrained housing supply, especially in purpose-built rentals, affordable rental housing, attainable ownership housing, and supportive housing, and that affordability pressures are already significant for moderate-income households, seniors, and essential workers. It further notes that the region lacks deep rental stock, intensification capacity, and servicing readiness to scale up quickly. A major construction boom here would create displacement pressure. The County specifically warns of rapid absorption of existing rental stock, conversion of ownership

housing to rentals, and sustained upward pressure on rents and home prices. Many residents may experience the project first not as a paycheque, but as higher housing costs, more traffic, and the loss of workers to higher-paying project jobs.

17. Northumberland County notes that key sectors already face recruitment and retention difficulties, including skilled trades, construction, healthcare, transportation, emergency services, and municipal operations. It also warns that large, well-paid, mobile construction workforces can divert labour away from essential services and local employers. Northumberland has farms, shops, local contractors, care systems, municipal services, and small and medium-sized employers that must survive regardless of what happens at Wesleyville. A megaproject does not create prosperity if it hollows out these existing employers, draws labour out of essential services, and leaves local businesses unable to compete during the build years only to face a bust later when the construction phase ends.

18. Northumberland County reports that its regional road infrastructure has a replacement value exceeding \$936 million, that it faces a \$9.8 million annual maintenance shortfall, and that only 54 percent of its 498-kilometre arterial road network is rated as adequate. Key routes connected to the Wesleyville site are already operating at reduced levels of service, and major corridors along Highway 401 are already vulnerable to congestion and emergency detours.

19. The County also identifies solid waste management as a constrained service, with its last remaining landfill projected to meet existing needs only until 2034 based on current disposal rates. Existing waste infrastructure is not designed for major increases in industrial, construction, or population-driven waste volumes.

20. A giant nuclear megaproject would put heavy pressure on both systems. Increased truck traffic, workforce travel, bridge and culvert strain, and large volumes of construction and induced waste would all accelerate costs and capacity problems. If the project is not needed or not completed, the County still gets the wear, the pressure, and the bills. The spending does not make those impacts disappear.

21. A project of this size will increase the demand for doctors, emergency room capacity, hospital services and other medical infrastructure. The implications to emergency response and the paramedical system exemplifies the costs and risks that lie ahead with this project. Northumberland County reports that its paramedic system is already under pressure, handling about 29,000 calls annually, facing hospital offload delays, long rural travel times, limited redundancy, staffing constraints, and increasing call complexity associated with an ageing population. The County also states that the

Wesleyville project introduces significant demand pressures and risks that would affect paramedic response capacity and county-wide emergency coordination and that there is no adequate modeling yet of increased demand on paramedics, hospitals, or emergency social services.

22. These concerns are especially serious in the nuclear context. Emergency planning for a nuclear station is not a one-time paperwork exercise. It means permanent obligations in training, exercises, evacuation planning, communications, public education, inter-agency coordination, responder readiness, and recovery planning over the full life of the project. If the plant turns out not to have been needed, those obligations do not become harmless. They become unnecessary burdens imposed on local institutions and taxpayers.

The nuclear nature of the project matters

21. Wesleyville is not a warehouse, a manufacturing factory, or even an ordinary power station. It is a proposed nuclear complex of unprecedented scale on the Lake Ontario shoreline. Blue Dot Northumberland's concerns about the project are therefore not only economic. They are also about what it means for this region to become host to one of the largest concentrations of nuclear materials and nuclear risk in the country.

Northumberland as a nuclear waste site

22. One of the clearest nuclear-specific concerns is waste. Once spent fuel is removed from a reactor, it remains intensely radioactive and heat-generating and must first be stored in water-filled cooling pools and then in dry casks for very long periods unless and until a permanent repository becomes available. If a 10,000 MW CANDU-scale station were built at Wesleyville, the site would eject on the order of 50,000 spent fuel bundles per year. If and when a permanent repository is built, the nuclear fuel waste will remain onsite and actively managed for years after it is ejected from reactors, until it is cool enough to be moved. Northumberland would become host to the largest long-lived inventory of intensely radioactive waste in Canada, and perhaps in the world. And if and when a geological repository is developed, that material will eventually have to be moved out through transportation corridors serving this region, with all the security and accident concerns that implies.

Nuclear plant fuel melting accidents

22. Nuclear power plants come with failure modes that look nothing like those of other power plants. A large nuclear station is a machine operating at extreme temperatures and pressures, dependent on continuous cooling and multiple layers of safety and control. If

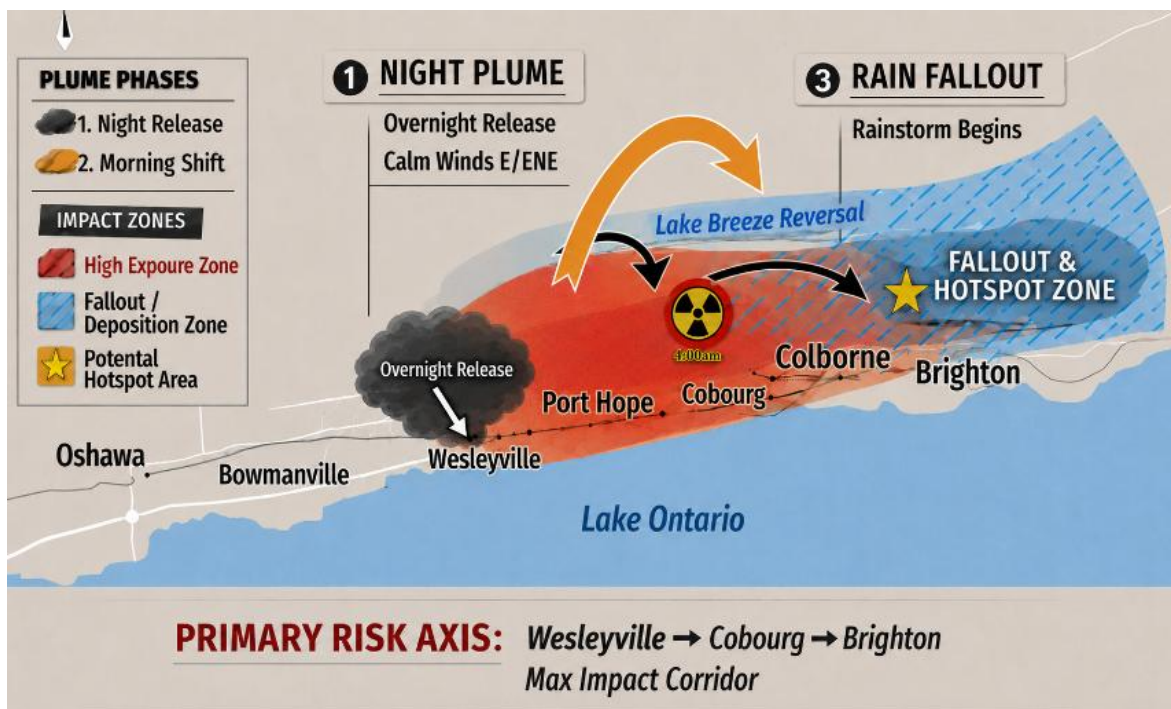
cooling is interrupted or major systems fail, fuel can overheat and melt, hydrogen can build up and explode, and radioactive material can be released into the environment.

23. The County's own emergency-management comments give this point added force. Northumberland states that its current emergency-management structure is not resourced for sustained, multiweek emergency response or recovery associated with a nuclear incident and that the current assessment framework does not yet require adequate county-level evacuation modeling, surge-capacity analysis, or operationally defined responsibilities and funding commitments.

24. There are about 450 large power reactors in the world and four of them have had serious fuel melting accidents that resulted in radioactive contamination of the surrounding environment – Chernobyl, and three reactors on a common site at Fukushima. (Putting multiple reactors on a single site increases the probability of common mode failures affecting more than one unit.) However low the annual accident probability may be, the consequences would be large, long-lasting, irreversible, uninsurable and borne above all by host and neighbouring communities. It would be foolhardy to ignore such risks, especially for the communities, farms, orchards and wildlife sanctuaries downwind from the proposed plant. As a minimum it is another reason for the most rigorous review of the purported need for and alternatives to the proposed plant at Wesleyville – why take any risk if it is unnecessary?

Population within 50 km of Wesleyville

Census Division	Population	Percent within 50km	Population within 50 km
Northumberland County	89,365	~100%	~89,000
Durham Region	696,992	81%	~565,000
Peterborough County	147,401	36%	~53,000
Kawartha Lakes	79,247	22%	~17,500
Hastings County	136,721	6%	~8,200
TOTAL	1,149,726	64%	~732,700



25. The diagram above illustrates the most likely dispersion pattern for airborne releases from a plant at Wesleyville, based on typical regional wind patterns along the north shore of Lake Ontario. It assumes a nighttime release under stable atmospheric conditions with light westerly winds, producing a concentrated plume moving east through Port Hope and Cobourg toward Brighton. A subsequent daytime lake-breeze reversal is shown returning the plume inland, with potential for rain-driven deposition (“hotspots”) along the same corridor.

Chronic public health impacts

26. We also have concerns about chronic public-health impacts of proximity to nuclear plants. Earlier this year, a major new study led by researchers at the Harvard School of Public Health concluded that U.S. communities closer to nuclear plants had higher cancer mortality rates than those farther away. The authors estimate that roughly 115,000 cancer deaths over the study period – about 6,400 per year – were statistically attributable to proximity to nuclear plants. It is the first comprehensive, modern-era analysis of cancer mortality in North America that indicates that living near large nuclear stations is associated with a measurable increase in cancer deaths, especially for older people. Host communities deserve a precautionary approach and full transparency, not blanket reassurances. Even where these findings are contested, they underline an important point for local decision-makers: a host community is being asked to accept not only rare

catastrophic risk, but also uncertainty around long-term low-level exposure and health outcomes. In a county with an older-than-average population profile, where approximately 29.1 percent of residents are aged 65 and over compared with 16.7 percent across Ontario, the burden of that uncertainty should not be dismissed lightly.

Thermal discharges and ecological impacts

27. A nuclear station is basically an 18th-century steam engine welded to 20th-century nuclear fission. It is a fundamentally inefficient machine, with 70% of the heat generated in the reactor core being dumped as warm water into Lake Ontario. The County's submission calls for analysis of thermal discharges on aquatic ecosystems, fish communities, habitat, recreational fisheries, and associated tourism. This is another reason the project cannot be treated as just another economic development proposal. Its environmental footprint is tied to its nuclear scale and to continuous water use and heat rejection over many decades.

Security, armed protection, and militarization of the site

28. Nuclear plants, including Ontario's current fleet of CANDUs, require on-site armed security forces. The American nuclear technology being considered for Wesleyville utilizes enriched uranium, and this elevates the threat level and the required response preparedness: not just more cameras and fences, but permanent on-site, heavily armed anti-terrorist and SWAT-style response teams, and armed convoys moving nuclear fuel and other sensitive materials through our region under the protection of specialized, militarized security forces, increasingly provided by private firms. Northumberland would become a permanently securitized critical-infrastructure zone, with associated policing, emergency planning, and public-safety implications.

Geopolitical and cyber vulnerability

29. Concentrating so much nuclear capacity at a single lakeshore site makes the region vulnerable in ways that ordinary infrastructure is not. The experience of nuclear facilities in Ukraine has made clear that nuclear sites are not immune from conflict-related threat, disruption, or coercion. The more capacity concentrated at one site, the greater the consequence of security failure, cyberattack, or military targeting. That is not an abstract global issue. It is part of what local communities are being asked to host.

Need, alternatives, and the risk of building the wrong thing

30. The proposal to build a giant nuclear plant at Wesleyville repeats an historical pattern in Ontario where a combination of overly ambitious utility planners and top-down political direction of the utility's business planning has led to nuclear expansion that proved unnecessary and left behind stranded costs and debt.

31. The need for alternatives to the proposed nuclear megaproject are foundational issues. The Impact Assessment Act requires consideration of both need and alternatives, yet OPG's project description does not provide the rigorous comparative analysis that a project of this magnitude demands. This omission is especially serious in Ontario, where electricity planners have a long and costly record of over-forecasting demand and overbuilding large supply projects. In the 1970s and again in the late 1980s, Ontario Hydro projected dramatic growth in electricity demand and the need for major new nuclear buildouts that never materialized; by 2014, peak demand was lower than it had been 25 years earlier, despite forecasts that 10 to 15 additional reactors would be required. Those errors contributed to investment overshoot, stranded assets, and massive debt burdens that Ontario ratepayers are still carrying. Against that background, it is not enough for OPG to assert that demand may rise sharply by 2050. For a project of up to 10,000 MW and a multi-decade buildout, the burden should be on the proponent to demonstrate, transparently and comparatively, that the plant is genuinely needed, that the scale is justified, and that alternatives such as energy efficiency, distributed renewables, storage, transmission upgrades, and staged procurement would not meet the same needs at lower cost and lower risk. The stronger the uncertainty about need, the weaker the case for imposing the housing, infrastructure, emergency-management, environmental, and nuclear-risk burdens of this project on Northumberland County.

Why local councils should care even if the Province pays

32. It may be tempting to say that all of this is the Province's problem because the Province or OPG will be paying the capital cost. But the County's submission shows why local governments must care deeply. Upper-tier municipalities are not bystanders. Northumberland County is responsible for regional roads, paramedics, planning, housing and homelessness, social services, waste systems, and emergency management. If a provincial megaproject overloads or reshapes those systems, municipal governments must either secure support in advance or absorb the consequences later.

33. The County explicitly warns of cost downloading, unanticipated fiscal pressure, and the need for clear cost attribution and funding mechanisms. A project that turns out not to be needed but still triggers years of road damage, housing inflation, landfill pressure, service expansion, emergency exercises, and public-safety obligations is not a windfall. It is a transfer of risk.

What Council should ask for

34. Council should not be forced into a false choice between "jobs" and "no jobs." It should insist on a development standard that is prudent, regionally responsible, and fully

informed by the nuclear nature of the project. At minimum, Council should support the following positions:

- The need for the Wesleyville project must be demonstrated through a transparent, evidence-based analysis that includes realistic demand scenarios and explicit comparison with alternatives such as efficiency, distributed renewables, storage, and grid modernization.
- Northumberland County must be formally recognized as a required partner in all future impact-assessment, planning, and mitigation processes, consistent with the County's own submission.
- The Regional Study Area must include housing, labour, transportation, waste systems, emergency management, paramedic services, food systems, and cumulative effects at the county scale.
- The assessment must explicitly address spent fuel storage, waste transport implications, severe-accident consequences, thermal discharges, security requirements, and long-term public-health uncertainty.
- No municipal support should be given unless enforceable funding commitments are in place so municipalities are not left paying for roads, service expansion, emergency readiness, waste impacts, or long-term growth-management pressures created by the project.
- The project should not proceed on the assumption that any spending is good spending. The relevant test is whether the project leaves the region more resilient, more affordable, safer, and better served after accounting for alternatives and risk.

Conclusion

35. Northumberland County has already identified the core local issue: Wesleyville is a regional megaproject whose housing, labour, transportation, emergency, and fiscal impacts will spill across the entire County, and will endure for generations. That reality already justifies caution.

36. The case for caution becomes stronger because this is a nuclear project. A giant nuclear station can leave behind not only boom-and-bust disruption, but also spent fuel inventories, emergency obligations, security burdens, long-lived environmental impacts, and low-probability/high-consequence risks that no ordinary development project would impose.

37. If the plant is not needed, or if it is delayed, downsized, or never completed, Northumberland will still have absorbed the housing inflation, labour displacement,

infrastructure strain, and public-safety obligations associated with hosting one of the largest nuclear developments ever proposed.

38. Good local government should insist on: proof of need, serious analysis of alternatives, full accounting of municipal and regional impacts, and clear protection against cost downloading, unmanaged boom-and-bust disruption, and avoidable nuclear risk.