

Windsor – Essex County Air Quality Action Plan Report Card



Citizens Environment Alliance

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THE ONTARIO TRILLIUM FOUNDATION
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October 2001

Introduction

On July 28, 1998, the Citizens Environment Alliance (CEA) proposed an anti-smog action plan for the City of Windsor and its departments. Although Council did not adopt the plan, it was referred to City administration for review and comment. Almost two years later, the Windsor Essex County Air Quality Committee (WECAQC) revised and approved a similar plan, Components and Recommendations for a Successful Air Quality Action Plan. In May 2000, Windsor City Council and Essex County Council unanimously passed this plan in an effort to mitigate the region's dreadfully poor air quality. This Plan is known as the *Air Quality Action Plan* and/or the *Smog Action Plan*.

In October 2000 the CEA published *Air Quality Action Plan Report Card 2000* summarizing the commitments made by City Council, evaluating progress and grading the City's efforts in implementing its Air Quality Action Plan. We used the *Air Quality Action Plan* structure, which outlines both emergency measures and long term air quality strategies, condensing some sections to avoid redundancy. In thirty categories, the City of Windsor garnered eighteen "F"s and seven "D"s.

In *Air Quality Action Plan Report Card 2000* Essex County was excluded, as the Essex County Air Quality Action Plan is limited to the properties of the Corporation of the County of Essex. This Report Card will again evaluate the City of Windsor, evaluating the County when it is relevant.

Many of the category assessments are unchanged from the previous year's report. Overall, an insignificant effort was made to abide by the promises contained in the air quality action plan. However many ideas and alternative actions have been proposed to the WECAQC in the past year, primarily by the CEA and other public participants. In this report the City and the County received nineteen "F"s, seven "D"s and four "C"s.

Recent trends show that the occurrence of smog in Windsor and Essex County is bad and getting worse, earning us the distressing title of "Smog Capital of Canada". The causes include poor land use planning (urban sprawl), truck and automobile emissions, heavy industrialization on both sides of the border and hot and sunny summers. Unfortunately, southwestern Ontario suffered a long, hot, and dry summer this year; Windsor and Essex County experienced the earliest start to its smog season on record: May 3, 2001. There were twenty-three days when the Provincial Air Quality Index was above 50 in 2001, up from four in 2000.¹ More information on smog is available in appendix B.

There are many reasons for the failure to adequately address air quality issues in Windsor and Essex County. First, the Province of Ontario, which is responsible for things like permit approvals, monitoring and enforcement, has drastically stripped the Ministry of Environment's ability to address these issues. Further, there has been no Provincial support, financial or otherwise, to WECAQC. Secondly, the Federal Government, which is responsible for addressing transboundary air quality issues, is similarly absent. Thus, proposed permits to discharge significant amounts of pollution into our air, from both Canadian and American sources, go undetected.

There are, however, many locally based reasons for continued failure:

- ⊙ There is little evidence that decisions are being made that consider regional air quality impacts.
- ⊙ Widening existing roads while paving new ones and building more parking lots/garages seems to be the only transportation policy that is agreeable to local politicians.
- ⊙ Both the City and the County have embraced sprawling residential, commercial and industrial developments, while failing to establish any limits to growth.

If local governments truly wish to ameliorate our poor air quality a comprehensive change in *business as usual* will be necessary.

¹ Based on Provincial Data compiled by Pollution Probe using Air Quality Index Monitoring Stations in West Windsor, Downtown Windsor and Merlin.

Windsor/Essex County Air Quality Report Card 2001

Table I: Recommended Elements of a Community-based Response to an Air Quality Advisory

What They Promised:	What they delivered:	GRADE
i) AIR QUALITY ADVISORY MECHANISM		
Appointment of an Air Quality Coordinator	An Air Quality Coordinator has been contracted. Unfortunately, a more ambitious (full-time) proposal was rejected in favour of a part-time proposal. Worse, the City and the County guarantee only two-thirds of the part-time Co-ordinator's salary, and plan to review their commitments annually.	D
Identification of an anticipatory air quality advisory mechanism	The provincial air quality detection and alert programme is used by WECAQC. However, this programme contains outdated health information that has resulted in an excessively high poor air quality threshold. WECAQC has failed to address this flawed provincial mechanism.	F
Local Response plan	There is no overarching response plan. The City Parks Department has rescheduled some activities, but these are ad-hoc measures. This failure seriously undermines several other promises that have been made and are outlined below.	F
ii) ACTIVATE COMMUNICATIONS PROCEDURE		
Notify major employers, government departments and agencies, institutions and the public in the region regarding the smog advisory, with required and suggested actions	Notification of an impending smog alert entailed forwarding emails to City workers. The Air Quality Coordinator reported contacting approximately 100 businesses, primarily healthcare and day-care facilities. The lack of an official response plan and mandatory reduction programmes undermined the Co-ordinator's ad-hoc efforts. Aside from Transit Windsor's signboards (only on newer buses) there is no public notification of smog alerts from the City or County.	D
Staff a hot line and web site to provide information, advice and referrals regarding smog advisory and appropriate responses	A hotline does not exist and no independent website has been created.	F
iii) SUGGESTED ACTIONS TO ALLEVIATE AIR QUALITY IMPACTS (Suspend or Reduce...)		
Non-essential motor vehicle use (use transit and alternative travel; delay deliveries and errands; use teleconferencing in lieu of driving to meetings; for essential vehicle use, give priority to alternative fuel/zero emission vehicles)	There is no evidence of any progress in this category, partially the result of the lack of a municipal implementation plan.	F
Use of gasoline-powered equipment (including lawn mowers, trimmers, leaf blowers, chain saws)	The Parks & Recreation and Public Works departments accomplished some of the criteria in this category. This is the closest the city comes to abiding by the plan. Again, these attempts are ad hoc and represent a minor aspect of the overall response plan.	C
-Gasoline re-fuelling (delay essential re-fuelling until evening hours) -Use of solvents, oil-based paints and stains, solvent-based cleaners and other materials containing volatile organic compounds -Road and path sweeping operations -Use of air conditioning in all vehicles and buildings; use of lights	In all four categories there is no evidence that any of these actions were reduced or suspended. We can only assume that it was business as usual. Also, there is no sign of a long-term strategy to implement these actions. This demonstrates both a lack of commitment and a lack of communication with the WECAQC and therefore the public, and a continuing problem for the successful implementation of the plan.	F
Pesticide spraying	Evidence of action in this category remains incomplete. Windsor Parks and Recreation reported that all pesticide contractors are required to suspend spraying on air quality advisory days, but admitted that there are deficiencies in the smog advisory notification system. A lack of public accountability and the absence of a coordinated effort among City Departments are obstacles to an improved grade in this category.	C

Suspend or Reduce... <i>continued</i>		
Road resurfacing and paving; asphalt roofing	A much-hyped voluntary commitment strategy by the Heavy Construction Association was forwarded to City Council. Although the County Warden, Windsor Mayor and Ontario Minister of the Environment endorsed it, members of the WECAQC were never invited to discuss its merits or shortcomings. Because compliance was voluntary, there remained no penalties or effective restrictions for paving on smog days. This is a good example of how members of the WECAQC, and therefore the public, are not being consulted on pertinent issues.	F
Outdoor activities for vulnerable groups (children, elderly, those with heart or respiratory problems)	The Air Quality Coordinator reported contacting some healthcare and day-care facilities. The reduction in outdoor activities as a result of the Co-ordinator's actions is unknown. A strategy to communicate with parks users (ie. Little League baseball, soccer, etc.) has not been established. No effective public notification system has been established.	D
Municipal, industrial and agricultural point and area source emissions of ozone precursors and particulate	There is no evidence of reduction in this area. The problem is that local governments must rely on inadequate monitoring from the provincial and federal governments. The data from the Windsor Air Quality Study is almost ten years old. If the city does not know what the sources are, it is difficult to accomplish the tasks in this category.	F
Vehicle idling	The City passed an idling bylaw in June after approximately eighteen months of deliberation. There has been little publication and education about the bylaw. Enforcement of the bylaw has been insignificant. Smog day enforcement and education about the idling bylaw would have significantly improved this grade.	D
Use of motorboats and recreational vehicles	Things are actually progressing in the opposite direction. The City's riverfront plan for a transient marina in Windsor's downtown has progressed behind closed doors.	F
- Requirement of formal office attire - Incentives to employees to eat lunch in (refreshments, special lunch menu in cafeteria, etc.) - Flexible work schedules	For these three initiatives there is no evidence that any type of communication or incentives were offered to City of Windsor employees.	F

Table II: Local Smog Prevention Initiatives (long term strategies)

What The City Promised:	What The City Delivered:	GRADE
i) PROMOTION OF ALTERNATIVE TRAVEL		
a. General Develop and implement regional transportation plan to improving air quality. That the City of Windsor commit to a timetable for re-routing diesel trucks away from the tunnel and downtown core, and further, to a traffic engineering study of truck traffic on Huron Church Road.	There are no signs of either a regional transportation plan with a view to improving air quality, nor a plan to re-route truck traffic away from Windsor's downtown. The closest thing to a truck study is the Windsor Area Long Term Transportation Study (WALTS). No truck study has been announced. One County WECAQC representative opposed requesting senior-level government funding for a regional transportation network. The County of Essex continues to provide support for the NAFTA Superhighway Coalition.	F
b. Human-Powered Transportation Enhance infrastructure (bicycle lanes/paths, sidewalks, racks, mixed mode) Provide support for employees (showers, secure storage for bicycles, financial incentives to ride or walk)	Windsor Council endorsed the Windsor Bicycling Committee Bicycle Use Master Plan (BUMP). Unfortunately, several councillors made it clear that they view bicycle infrastructure as secondary to motor-vehicle infrastructure. One even suggested that cyclists should be responsible for "fundraising" for some of the foreseen costs of bicycle lanes. Although bike lanes have been painted onto some roads, there has been no evidence of progress in any of the other listed items.	D

<p><u>b. (Human-Powered Transportation continued)</u></p> <p>Require staff to walk or cycle when appropriate (e.g., police, parking enforcement, couriers, deliveries)</p> <p>Require provision of secure bicycle storage in new developments</p> <p>Promote walking and cycling through education and partnership with community groups and local businesses (e.g., bike share program, "walking school bus")</p>	<p>A Walking School Bus presentation to members of the WECAQC proved fruitless.</p>	
<p>c. Transit Use</p> <ul style="list-style-type: none"> -Develop and implement incentives to encourage increased transit use (e.g., subsidize transit passes, education) -Study feasibility of regional express buses, preferential fare structure, financial support, infrastructure (express lanes) -Promote corporate commuter service -Develop options for rural residents -Enhance public education program to encourage ridership 	<p>Although there has been criticism that county residents' use of the City of Windsor roadways goes unsubsidized, there has been no provision of alternatives to driving one's car. Transit Windsor deserves credit for continuing the bike rack programme on 17 of its buses, this should be expanded. Transit Windsor has secured some funding toward the goal of offering free ridership on smog days. However, fares increased on January 1, 2000 and Transit Windsor has proposed further increases for 2002. Future initiatives must include: low emission or zero emission fleets, elimination of diesel buses, increased service during critical smog time and free service on smog alert days. Options for rural residents do not exist despite some expression of interest from the towns Essex and Kingsville for the expansion of Transit Windsor into the County.</p>	D
<p>d. Ride Sharing</p> <p>Provide economic and other incentives to promote ride sharing; remove disincentives (e.g., subsidized parking, priority parking spaces/lot, guaranteed ride)</p> <p>Provide assistance for development of trip reduction programs (e.g., education, ride matching service, challenge programs)</p> <p>Designate priority lanes for ride share vehicles</p> <p>Boat Services</p> <p>Study feasibility of water taxi or passenger ferry service between regional locations</p>	<p>There is no sign of a concerted effort in this area. The City and the County need to look at other municipalities that are already practising these small but not insignificant measures.</p> <p>Unfortunately, the City of Windsor's riverfront marina plans seem to preclude a water taxi service or the much-hyped gondola between Windsor and Detroit's downtown centres.</p>	F
<p>e. Discourage Motor Vehicle Use</p> <p>Decrease amount of land dedicated to vehicles through promotion of denser development, mixed-use communities; provide incentives to developers (consistent with official plan policies)</p> <p>Restrict use of private cars (from certain areas, every other day, etc.)</p> <p>Modify parking policies and by-law requirements (e.g., shift subsidies from parking to transit or alternatives, raise parking fees, raise parking permit fee for second car, by-law to reduce number of paved spaces provided in new developments and redevelopment)</p>	<p>These measures are not being met; there is evidence to the contrary. Plans to construct road bridges across Little River are in the process of being approved.</p> <p>Parking policies include giving free parking passes, rather than transit tokens, to city committee members attending meetings, approval of a new parking garage on Wyandotte near Ouellette and a plan to increase parking space at the riverfront by 40%.</p>	F
<p>f. Alternative Work Options</p> <p>Allow flexible hours to avoid peak road use</p> <p>Telecommuting (work at home, satellite offices), Teleconferencing/video-conferencing in lieu of driving to meetings.</p>	<p>No evidence of action on any of these items.</p>	F

ii) REDUCTION OF EMISSIONS FROM VEHICLES AND EQUIPMENT		
<p>a. Fleet and Equipment Reduction and Replacement</p> <p>Initiate program to replace fleet of vehicles with alternative fuel, zero emission vehicles; program to replace high emissions equipment</p> <p>Promote fleet reduction/replacement for local businesses through cooperative programs</p> <p>Study feasibility of lawn mower, other equipment or vehicle buy-back or rebate program</p>	<p>Propane-powered police vehicles, now among the City-owned fleet, are examples of alternative fuel use. Unfortunately, the majority of vehicles do not yet employ alternative fuel options and there is no sign of a coordinated effort to do so. The City should set targets and a timeline to fulfil the requirements of this category.</p>	D
<p>b. Emissions Reduction</p> <p>Install anti-idling timer on fleet vehicles</p> <p>Use reformulated gasoline, low sulphur fuel and alternative fuels</p> <p>Encourage the availability of low sulphur gasoline (prior to regulatory deadline) and alternative fuels at retail stations</p> <p>Require contracting or leasing companies to comply with specified standards for vehicles and equipment or with certification programs (such as Drive Clean)</p> <p>Implement an inspection and maintenance program for fleet vehicles</p> <p>Require installation of vapour recovery systems at fleet refueling stations</p> <p>Support regulations to mandate vapour recovery at retail fuel stations</p> <p>Lobby, and cooperate with, other levels of government to accelerate and improve mandatory emissions testing programs, anti-tampering regulations, air quality standards</p>	<p>There has been no discussion of anti-idling timers or the other innovations listed. Transit Windsor is resistant to using low emission fuels, their entire fleet still uses diesel. We reiterate the need for reporting of all departments on whether they are implementing these measures.</p>	F
iii) ENERGY USE REDUCTION		
<p>ACTION</p> <p>a. Power Sources</p> <p>Promote use of cogeneration, district heating and cooling</p> <p>Procure electricity from alternative power (non-coal fired) sources</p>	<p>District heating and cooling downtown has been a successful program. The CEA looks forward to seeing it expanded to other areas of the city. Also, City Council has clearly signalled to the Provincial Government the need to eliminate coal-fired plants. However, the Brighton Beach Power facility is in the process of receiving approval. This project will increase smog precursors that are being emitted in this area. Further, the County has shown no interest in initiating an alternative energy pilot project, such as a wind farm.</p>	C
<p>b. Energy Efficiency</p> <p>Retrofit existing buildings for energy and hot water efficiency; promote private sector retrofit through cooperatives programmes (e.g., Toronto's Better Buildings Partnership)</p> <p>Promote energy efficiency in new design and construction</p>	<p>New construction projects and the refurbishing of older structures present opportunities for the City to promote energy efficient design. There has been no evidence that such opportunities are being exploited. The absence of such initiatives is particularly evident in the Canderel project plans, which call for roof parking instead of a "green" rooftop garden.</p>	F
<p>c. Reduce Urban Heat Island Effect</p> <p>Use lighter colour pavement and roofing; alternatives to paved surfaces</p> <p>Use strategic tree planting to shade pavement and buildings and protect existing shade trees</p> <p>Increase green space (reclaim pavement), restore natural areas, naturalized planting (to reduce amount of grass), native species, use of</p>	<p>The actions in this category have taken a turn for the worse from last year. In some respects, the City has been stagnant on these issues. For example, there is no sign of a tree-planting program. In other ways, the City has worked against the measures. Another parking garage is being constructed downtown with a hard surfaced roof. Despite requests, the Green Roofs forum that was held earlier this year was not supported by WECAQC. Many downtown developments proceed with no evidence of concern for the issues in this category. The County of Essex Official Plan has lax controls protecting natural areas. City of Windsor's eastside developments included the</p>	F

<p>c. <u>(Reduce Urban Heat Island Effect continued)</u></p> <p>roof gardens on public and private property</p>	<p>emaciation of a natural area across from Peche Island and ambitious plans to extend roads. The Brighton Beach area has been zoned heavy industrial.</p>	
<p>iv) OTHER</p>		
<p>a. Smog Prevention and Reduction Plan Implementation</p> <p>Establish clean air fund; direct fees, fines and other moneys into the fund (to be used for anti-smog initiatives)</p> <p>Set emissions reductions targets</p> <p>Establish program for plan evaluation; audits</p>	<p>Funding, target setting and evaluation are fundamental aspects of any anti-smog action plan. Regrettably, they are absent here. Funding allocated to WECAQC is controlled by Public Works—who have yet to show a commitment to clean air. There is no established program for target setting or evaluation.</p>	F
<p>ACTION</p> <p>b. Education and Communication</p> <p>Develop and implement a comprehensive smog prevention education and communication plan</p> <p>Prepare annual report on smog action and goal achievement</p> <p>Establish awards for meeting or exceeding goals and for innovative smog reduction ideas</p>	<p>This category would more appropriately be titled “Inaction”.</p> <p>Education is key to the success of any public interest campaign. Communication is the cornerstone of public education. But despite its importance to public health, no visible action has been taken.</p>	F
<p>c. Particulate and Dust Reduction</p> <p>Develop program for dust suppression at construction sites and aggregate storage facilities</p> <p>Develop program for dust reduction from roads</p>	<p>Although some industries have their own programs, there is no overall city effort to encourage others to follow suit. The City does have a program to limit dust on main roadways; it needs to be expanded and the private sector should be encouraged to follow suit.</p> <p>Dust at paving operations throughout the city remained ubiquitous. A combined sweeping and vacuuming system, such as the one used by Hamilton, could be looked into by the City of Windsor to further reduce airborne particulate matter.</p>	F
<p>d. Phase Out of Cosmetic Use of Pesticides</p> <p>Educate on alternatives to pesticide use, “green” lawn care</p>	<p>In October 2000, City Council finally adopted as its goal the elimination of the cosmetic use of pesticides on municipal properties. A timetable that will culminate in a phase out has not been adopted. The City supported the production of a book entitled “Natural Alternatives to Pesticides”. This book is available to the public on the Internet or in hardcopy form.</p> <p>Despite City departments’ claims of pesticide reductions, there has not been public verification of reductions. A second Aquacide (steam sprayer) unit has been purchased by the Parks and Recreation department and is intended to replace some herbicide spraying. Lasalle has a corporate policy against spraying; other municipalities should follow their lead.</p>	C

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Appendix A

Committee attendance:

Committee Member	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep*	Oct	Total
Rep. for the City of Windsor											
**Bill Marra, Windsor City Councillor (ward 4)	✓		✓	✓		✓		✓			5
Eddie Francis, Windsor City Councillor (ward 5)							✓				1
Rep. for the County of Essex											
Jim Reid, Deputy-Mayor of Leamington	✓	✓	✓	✓			✓	✓		✓	7
Nelson Santos, Deputy-Mayor of Kingsville	✓	✓		✓				✓	✓	✓	6
Rep. for Labour											
Canadian Auto Workers Regional Environmental Committee	✓	✓	✓	✓		✓	✓	✓			7
Windsor and District Labour Council											0
Rep. for Medical Community											
Sandwich Community Health Centre	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Essex County Medical Society	✓	✓	✓	✓	✓	✓					6
Rep. for Industry											
Daimler Chrysler Canada		✓			✓	✓		✓		✓	5
Windsor and District Chamber of Commerce		✓			✓	✓	✓			✓	5
Rep. for the Public											
Citizens Environment Alliance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Miriam Goldstein or Pam Goldstein, Citizen	✓	✓	✓	✓	✓				✓		6
TOTALS...	8	9	7	8	6	7	6	7	4	6	●●

*With twelve committee members, the September meeting failed to attain quorum; no business was conducted.

**Chair of the Windsor Essex County Air Quality Committee.

Appendix B

What is Smog?

Smog is a combination of ground-level ozone and fine airborne particles.

Ground-level ozone is a colourless and highly irritating gas that forms just above the earth's surface. It is produced when two primary pollutants react in sunlight and stagnant air. These two primary pollutants are nitrogen oxides (NO_x) and volatile organic compounds (VOCs). Ground-level ozone not only affects human health, it can damage vegetation and decrease the productivity of some crops.

Airborne particles are microscopic and remain suspended in the air for some time. Particles can be both primary pollutants and secondary pollutants, sent directly into the atmosphere in the form of windblown dust and soil, pollen and spores. Secondary particles are formed through chemical reactions involving nitrogen oxides, sulfur dioxide, VOCs and ammonia. Numerous studies have linked particulate matter (PM) to aggravated cardiac and respiratory (heart and lung) diseases such as asthma, bronchitis and emphysema and to various forms of heart disease. Children and the elderly, as well as people with respiratory disorders such as asthma, are particularly susceptible to health effects caused by PM.

Scientists now understand that there is no "threshold," or safe level, for exposure to PM or ground-level ozone. Further, PM and ground level ozone are not limited to urban areas; their presence is widespread throughout North America.

"It's really quite dramatic. Until very recently, we believed there was some sort of magic threshold, and once you crossed it, things got toxic," stated Dr. Ted Boadway of the Ontario Medical Association in early May 2001. "But we were wrong. We can now say definitively that air pollution operates on a graded and completely linear way. A little bit affects everybody a little bit, a little more affects everybody a little more.

"This is a quite a radical departure in our understanding of smog. The bottom line is there's no comfort level. What you can see does hurt you. But what you can't see hurts you as well."

In Ontario a smog advisory, or *smog day*, occurs when the concentration of ground-level ozone is expected to exceed an Ontario Air Quality Index (AQI) of 50, which is approximately 80ppb (parts per billion). Readings below 50 are described as *good* or *moderate* air quality.

Since recent studies show that there is no threshold below which ozone or particles will cause no effects on the lungs, the Province of Ontario needs to adjust its Air Quality Index reporting to reflect this reality. Governments need to communicate that at all levels of pollutants, even the lowest, some effect can occur in some people.

For more information, please see Toronto Public Health (2000) *Toronto's Air: Let's Make It Healthy*. TPH, Toronto; Health Canada and Environment Canada (1999) *National Ambient Air Quality Objectives for Particulate Matter, Science Assessment Document*. Health Canada and Environment Canada, Ottawa; Health Canada and Environment Canada (1999) *National Ambient Air Quality Objectives for Ground-Level Ozone, Science Assessment Document*. Health Canada and Environment Canada, Ottawa.

Appendix C

Air Quality/Climate Change Expenditures in Various Municipalities 1999/2000 Budgets

	South Coast Air Quality Management District	Bay Area Air Quality Management District	Greater Vancouver Regional District	Ottawa And Region	Toronto	<i>Windsor & Essex County 2000/2001</i>
Policy and Programs	\$43,846,403	\$18,513,137	\$2,313,760	\$425,000/ \$1,000,000	\$1,850,798	\$40,000
Population	14,000,000	6,700,000	1,800,000	350,000/ 765,000	2,400,000	355,000
Per Capita Spending	\$3.13 US	\$2.76 US	\$1.29	\$1.31/\$1.21= \$2.52	\$0.77	\$0.11

Notes:

- Programs vary from city to city. The Policy and Programs line in the above chart refers to public education and information programs, policy development, energy efficiency programs, emissions inventories, and technology development.
- Original budgets of the SCAQMD, BAAQMD and GVRD had included compliance, monitoring and permitting. Since the province of Ontario handles these budget items, compliance, monitoring and permitting were removed from all budgets in this report to more accurately compare with Toronto and Ottawa.
- Admin/Overhead was pro-rated to reflect the subtraction of compliance, monitoring and permitting from the expenditures.

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