

Tar Sands in Great Lakes Region—Info Packet

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PART I: THE TAR SANDS PROFILE

THE BASICS:

- Canadian tar sands are located in three major regions, the largest of which is the Athabasca, followed by Cold Lake and the Peace River
- Tar sands oil is found in the ground in the form of bitumen; a high hydrocarbon that is solid at normal temperatures and mixed in with sand, clay and water
- There are two types of extraction processes for bitumen: 1) open pit mining also known as surface mining; and 2) “in-situ” pumping of steam underground to loosen the bitumen
- Surface removes two tonnes of matter for every one barrel of oil produced. This process destroys local ecosystems, leaving gaping open pit mines 75 meters deep littering the physical locale
- 90,000 square miles of boreal forest, an area the size of Florida, has been designated for tar sands development and transformed into an industrial landscape
- Alberta’s tar sands contains between 1.7 and 2.5 trillion barrels of oil. Of this, 185-200 billion barrels are considered recoverable based on current technologies. With further advances in technology, the Canadian Association of Petroleum Producers estimates that 315 billion barrels could be recovered
- Almost three million barrels of oil (bpd) are produced from the tar sands every day, with a goal of 5.3 million bpd between 2015 and 2020
- Close to 60% of oil produced from the tar sands is exported to the United States

CLIMATE CHANGE:

- Tar sands oil produces between three to five times more greenhouse gas (GHG) emissions than pumping conventional oil
- Conventional oil produces an average of 28.6kg of carbon dioxide per barrel of oil, while tar sands oil produces at least 85.5kg.
- The tar sands account for more than 16% of carbon emissions in Canada
- Tar sands could account for up to half of the growth in Canada’s carbon emissions between 2003 and 2010.
- Tar Sands development causes air to become polluted with toxic chemicals such as nitrogen oxides and sulphur dioxide

WATER CONTAMINATION:

- The mining of one square meter of bitumen creates six square meters of tailings
- Tailings contain salts, heavy metals, toxic hydrocarbons and pollutants such as naphthenic acids
- The toxicity of tailing water will kill minnows within 96 hours
- Syncrude's Tailing Dam is the second largest dam in the world. Syncrude dumps 500,000 tons of tailings into this dam daily.
- Syncrude dumps 500,000 tons of waste every day
- Cannons are set off every 30 minutes on tailings ponds to prevent birds and wildlife from drinking from the toxic sludgy water
- 1,606 ducks died in one of Syncrude's tailings pond in May 2008

A Syncrude tailing pond that is both appealing and deadly to migrating ducks

Source: NRDC Switchboard



- A 2008 Environmental Defence report estimated that 11 million litres of contaminated water are seeping from tailings ponds into the environment on a daily basis
- The Community of Fort McKay is not only downstream, but also surrounded by tar sands development. Also downstream is the community of Fort Chipewyan, on the southwestern tip of Lake Athabasca—downstream from the tar sands on the Athabasca are more than 360,000 Aboriginal peoples
- A study conducted for the Fort Chipewyan community found differing levels of chemical constituents exceed guideline levels downstream of the tar sands

WATER DEPLETION:

- The tar sands are the largest user of groundwater in Alberta, requiring between 3.5 and 5 barrels of water per barrel of crude
- Only 10% of the water is recoverable; the other 90% ends up in lake-size tailing ponds filled with water and toxic materials (aka: toxic sludge)
- An estimated one-sixth of Canada's freshwater drains into the Athabasca-Peace-Mackenzie Delta watershed, the third largest freshwater watershed in the world.
- The Athabasca River is the third longest undammed river in North America, and is the main source of water for the development of tar sands oil mining
- There are licenses in place to divert 349 million m³ of water per year out of the Athabasca River for tar sands development alone
- Of all the allocated water from the Athabasca, tar sands leases make up over 76%—Leases allow companies to remove over 3.2 billion barrels a year, enough for two cities the size of Calgary
- There has been extensive loss of perched lakes, leading to declines of muskrats, waterfowl, and fish

INDIGENOUS RIGHTS:

- Downstream from the existing tar sands plants, First Nations communities are most directly affected by the flow of toxic sludge
- Almost all the land on which tar sands extraction is occurring is on or near indigenous territory
- In particular, communities of the Mikisew Cree and the Athabaskan Chipewyan have actively protested against the poisoning of their waterways and the health and environmental hazards facing their peoples
- Dr John O'Connor, a physician of Fort Chipewyan, noticed in late 2000 auto-immune diseases, and a large number of people with diabetes, renal failure, hypertension, high rates of cancer, and specifically certain rare types of cancer

ECONOMIC DISLOCATION:

- While the manufacturing industry faced layoffs even when the economy was in better shape, the tar sands industry was flying high. With the economy in a downturn, tar sands projects that were already up and running are still making profit, with the support of both the provincial government of Alberta, and the Harper government in Ottawa.
- Our manufacturing exports to the U.S. are directly affected by the price of oil—when oil prices rise our manufacturing exports decline, resulting in greater layoffs and unemployment. This is known as the petro dollar and it is important for our manufacturing sector.
- In Alberta itself, redistribution of the bounty generated by the oil boom has been trickle-up, not trickle-down, with the lion’s share of the wealth going to the oil corporations, not the majority of people in the producing provinces.
- Tar sands companies are granted lucrative provincial subsidies in the form of low royalty rates. In Alberta, the government requires that companies operating in the tar sands only pay a royalty fee of 1 percent on their gross revenues until all their construction costs were paid off, which effectively amounts to a tax holiday. After that, they would pay a 25 percent tax on their net earnings. In contrast, oil-producing countries such as Russia, Bolivia and Ecuador collect 90 percent or more of the windfall profits that the companies reap once the price of oil goes above a certain level.

INFRASTRUCTURE:

- Before bitumen can be transported by pipeline to refineries it must be “upgraded” in industrial facilities called “upgraders.” Each upgrader requires hundreds of hectares of land.
- Refineries pose a serious concern for human and ecosystem health causing increases in toxic air emissions, acid rain, and greenhouse gas emissions
- Canada’s National Energy Board (August, 2009) reported nearly 2 out of every 100 pipeline workers suffered a serious workplace injury in 2007 (double the 7-year average). Possible causes for increased injuries include: employee experience levels, increasing pressure to meet deadlines, worker complacency, and increased pipeline construction activity

U.S. LINKS:

- Canada is an energy satellite of the U.S. Today, Canada is the largest foreign supplier of electricity, oil and natural gas to the U.S. The Alberta tar sands consolidate Canada's role as the U.S.'s prime energy source.
- At present there are 22 pipelines linking oil production in Canada to five major petroleum markets in the US
- The Alberta Government is currently spending \$25 million on a PR campaign to clean up the image of the tar sands to continue to market it to the United States.
- The U.S. Energy Policy Act of 2005 contains at least two provisions that reaffirm Canada's status as an energy supplier for military pumps. In a section of "Use of Fuel to Meet Department of Defence Needs," the law designates tar sands production to serve the fuel needs of the U.S. military. At the discretion of the U.S. Secretary of Defence, the law states that as much crude oil as possible from the tar sands will be processed in refineries south of the border for purposes of fuelling the American military.
- In a section labelled "Partnerships," the Energy Policy Act calls for a special relationship to be developed with the Province of Alberta, Canada, "for purposes of sharing information relating to the development and production of oil from tar sands."
- Everyday, the Pentagon reportedly consumes over 365,000 barrels of oil. This is 85 percent of the U.S. government's total oil consumption. Before the invasion of Iraq, the Pentagon's official figure for annual oil consumption was 110 million barrels. Since then, the Pentagon admits to burning 130 million barrels a year.

SOCIAL DAMAGE:

- In Fort McMurray's infrastructure is built to handle a population just over 10,000—the population is growing at a rate of 8 percent per year, reaching more than 80,000 in 2008
- Since the "Alberta Boom" homelessness in Calgary has increased by 458%
- Assaults are 89% higher in Fort McMurray than anywhere else in Alberta and impaired driving arrests are 117% higher than anywhere else in the province.ⁱ
- Cheap labour practices, allow oil companies operating in the tar sands to cut their labour costs by hiring non-unionized workers and workers from other countries, thereby circumventing the building trades unions and proper work standards in Alberta plus skewing the skilled trades pool and wages in Ontario, Quebec and Atlantic Canada

PART II: COMMUNITY PROFILES

WINDSOR

Population: 208, 425

Unemployment: 15.7% (Statistics Canada July 2009)

Overview: Concerning Realities

The Windsor community has become an urban centre with not only one of the highest recorded levels of unemployment in Canada, but also the most toxic air in the Great Lakes Region. Numerous studies have concluded that air and water contamination are the combined result of emissions from industrial operations in Windsor area and the adjacent city of Detroit, as well as automobile pollution along the Ambassador Bridge at the Canada-USA border. According to Dr. Margaret Keith, "Windsor is now facing serious air pollution problems which are made even worse by the thousands of trucks that cross its border everyday from US." The incidences of several cancers and early mortality rates are higher than other Canadian cities. In addition, severe health concerns are diagnosed at alarmingly widespread rates, including disorders of the endocrine and immunity, blood, nervous, circulatory, musculoskeletal and respiratory systems, digestive system problems, and disorders related to skin and connective tissues. In recent studies, elevated rates of cardiovascular and respiratory morbidity have been linked to air pollution in Windsor.

With the closing of local auto plants, many of the manufacturing jobs based in the Windsor region have disappeared. In response to the local economic crisis, members of civil society are actively exploring opportunities to develop skills for jobs related to harnessing renewable resources.

Tar Sands Connections

With the proximity of Detroit and Sarnia to Windsor, the impacts of the expansion of the oil refineries will likely lead to greater air pollution, toxins in the soil, and increased rainwater and watershed contamination. According to Dr. Jim Brophy, "Refining tar sands oil in the southwest section of Detroit will pose a further burden of pollution and ill health...[in] communities that are already suffering from environmentally related disease." A revitalized urban economy and a healthier future for residents of Windsor are possible but only if jobs are developed locally that do not rely on dirty crude from the Alberta tar sands.

Robert F. Kennedy, Jr., has denounced pollution in Windsor: "[With] a lot of the industries in Detroit, the air emissions make their way to Windsor. Windsor has high cancer rates, particularly thyroid cancer. Many other respiratory illnesses that are associated with pollution are more prevalent here than elsewhere in Canada as Windsor is downwind from several strong polluters."ⁱⁱⁱ

- The Weather Network has designated Windsor the *Smog Capital of Canada*ⁱⁱⁱ

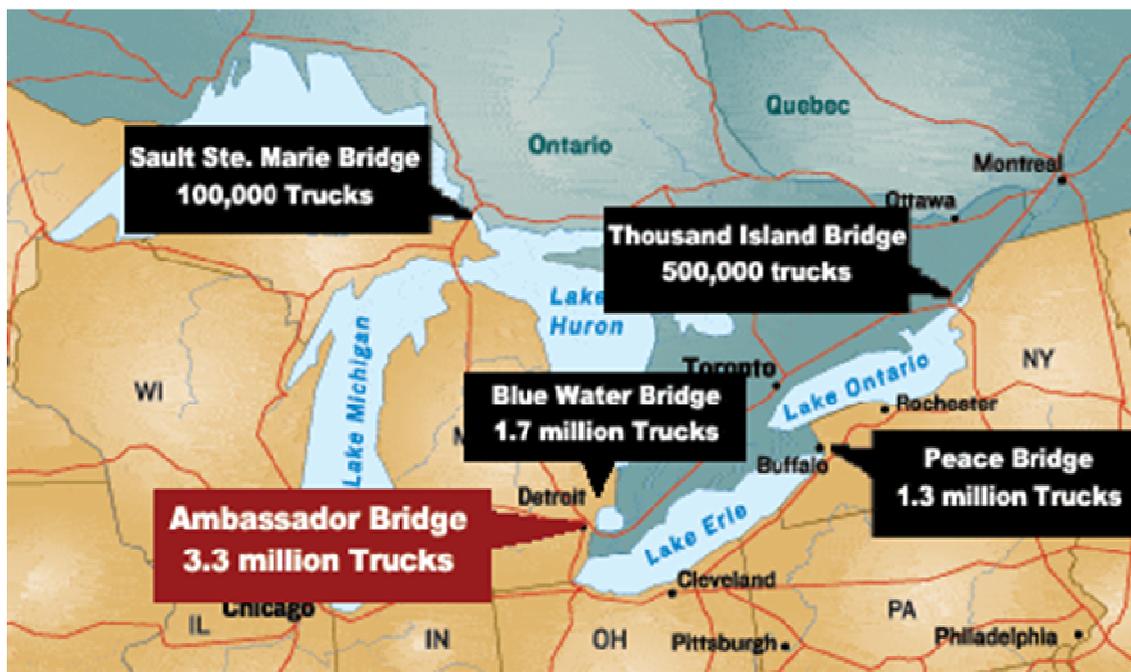
- A 2001 Article in the Environmental Health Perspectives journal states that the “rates of mortality, morbidity as hospitalizations, and congenital anomalies in the Windsor Area of Concern ranked among the highest of the 17 Areas of Concern on the Canadian side of the Great Lakes for selected end points that might be related to pollution”.^{iv}

Economic & Social Injustice Perpetuated

If the trend of oil refinery development continues towards expanding the intake of tar sands crude, public health experts expect that incidences of respiratory illnesses and cancers will correspondingly increase in Windsor. As Mark Bartlett of the Canadian Auto Workers Windsor Regional Environmental Council explains, “An economic transformation for the long-term is needed. We need to remove the fear people have that they are going to lose their jobs and not be able to feed their kids. We have to be able ...to transition to a green economy.”

The Ambassador Bridge

- A suspension bridge tucked in the middle of the Great Lakes where the Detroit River, at its most narrow point, bisects the U.S. and Canadian auto industries.^v
- Every year tractor trailers haul \$100 billion of goods across the Ambassador which amounts to a quarter of the \$400 billion in total that the U.S. trades with Canada^{vi}
- 40% of all truck shipments from the U.S. cross this bridge to more northern points^{vii}



Source: http://www.forbes.com/business/free_forbes/2004/1115/134_3.html

SARNIA

Sarnia's Population: 71,419

Aamjwnaang Population [On Reserve]: 850

Unemployment: 12.8% (Statistics Canada March 2009)

Overview: Concerning Realities

Home to over sixty large industrial facilities, including some of the top ten air polluters in the country, the City of Sarnia—located at the south end of Lake Huron and east side of the St. Clair River in Lambton County—has gained the ominous reputation as the urban centre of Canada's 'Chemical Valley'. According to a recent report by Ecojustice (2007), the proximity of many industrial facilities to the First Nations Reserve has led to the reality that Aamjwnaang residents are disproportionately affected with higher levels of toxins in their blood. They report significantly higher incidences of respiratory illnesses, cancers, skin disorders, thyroid and kidney problems, high blood pressure, severe and chronic headaches, learning and attention deficit disorders, miscarriages, and stillbirths than the general population of Lambton County. However, the health and well-being of all residents of Lambton County are severely impacted by the heavy burden of pollutants, demonstrated by widespread cancers, illness, and an observable decrease in the number of boys born (suspected to be related to endocrine disruptions).

Tar Sands Connections

There are *FOUR* refineries in Sarnia that use tar sands oil:

Imperial Oil – Sarnia Refinery

Capacity: 115,000 bbl/d (18,919 m³/d)

Employees: Approximately 1,030

Products: Unleaded gasoline, jet fuel, stove oil, furnace fuel, diesel, marine fuel, propane and butane and lubricating oils, olefins, polyethylene, benzene, toluene, xylene, specialized solvents, asticizer feedstocks

Imperial Oil



Shell's Sarnia Manufacturing Center Corunna Refinery

Capacity: 72,000 bbl/d (11,400 m³/d)

Employees: 350 full-time employees

Products: Gasoline, distillates, liquid petroleum gas, heavy oils, pure chemicals, solvents



Suncor Energy – Sarnia Refinery

Capacity: 85,000 bbl/d (13,514 m³/d)

Employees: 300 full time employees and 100 contractors

Products: Gasoline, kerosine, jet and diesel fuels



Nova Chemicals – Corunna Site

Capacity: 9.5 billion lbs. of basic Petrochemicals, refinery and energy products annually

Employees: 500

Processes: Crude oil



Economic & Social Injustice Perpetuated

The long-term health of the families, environment and economy of Lambton County are all at risk when oil companies expand their facilities to accommodate tar sands oil.

Already in Lambton County, annual greenhouse gas emissions are recorded at 16.5 million tonnes, while toxic air emissions are measured at 5.7 million kilograms.

Expanding the oil refineries will lead to an increase in the toxic pollutants contaminating the air, waterways, land, and ultimately the bodies of local residents. To date, many of the jobs at the oil refineries and production lines are temporary or short-term positions and provide little job security. Given the pending exhaustion of our natural resources and the volatility of the petro-economy, the directions taken by multinational oil corporations are simply not economically, environmentally, or socially responsible.

- The Aamjiwnaang First Nation lives downstream from the Imperial Oil and Suncor refineries. The community has seen twice as many females born as males, and have reported feminization in turtles in the St. Clair River. Suncor refinery is ranked number one for releasing pollutants that are known or suspected to cause reproductive and developmental toxicants.
- An Ecojustice report titled *Exposing Canada's Chemical Valley* shows that in 2005, facilities within 25 km of Sarnia released more than 131,000 tonnes of air pollution. That much air pollution (consisting of mercury, dioxins other toxins) equates to a toxic load of more than 1,800 kilograms per Sarnia and Aamjiwnaang resident^{viii}.
- Sarnia's economy continues to suffer alongside the struggling automotive sector
- Between June 2008 and June 2009, employment in the Windsor-Sarnia region decreased by 6%. The number of unemployed rose by 15,400 increasing the unemployment rate up to 12.8% - the highest rate in Ontario's economic regions^{ix}

DETROIT

Population: 821, 792

Unemployment: 17-20% (US Census 2005)

Overview: Concerning Realities

Several incinerators, sewage treatment, steel, automobile and coal fire plants as well as an oil refinery are all based in Southwest Detroit—a neighbourhood predominantly populated by low-income people of colour. According to US Census data (2005) over one-third of the population of Detroit lives under the poverty line, many of whom live in the industrial corridor known as Detroit's 'Cancer Alley'. Cancers, respiratory illnesses, developmental disorders, and chronic headaches are all highly prevalent amongst the African American and Latin American communities living here. Industries have been rapidly expanding within the Southwest end of Detroit, and are situated in close proximity to the schools, playgrounds and the sole community centre. Medical data reveals that local children have alarmingly high levels of lead, mercury and other heavy metals in their blood, as well as high rates of asthma.

Tar Sands Connections

The Marathon Oil refinery currently employs approximately 300 staff people and processes 102,000 barrels of oil per day. Amidst opposition by local residents, Marathon Oil has embarked on an expansion to handle tar sands oil, and increase its capacity to 115,000 barrels of oil per day. The Detroit Heavy Oil Upgrade Project (HOUP) has been granted a ten year tax exemption worth 186 million USD for the HOUP and is expected to create sixty-one permanent jobs. Marathon Oil holds a twenty per cent interest in Athabasca Oil Sands Project and is developing an extension of oil pipelines to bring the crude from Canada to the USA. In addition, Ajax Corporation is expanding a local asphalt production line to handle tar sands petrochemicals, adding six new jobs to their workforce.

Economic & Social Injustice Perpetuated

Although Marathon and Ajax representatives are promoting their projects as economically beneficial, the fact remains that few permanent jobs will be created by these projects. Many of the new jobs will be highly technical, and residents expect that the standards set by the companies will lead to few local people being hired. Detroit residents and community organizations are anticipating that Marathon's HOUP and the Ajax asphalt processing project will result in increased water, air and soil contamination. Consequences would likely include a corresponding rise in cancer rates and overall ill health of residents of Southwest Detroit. According to Rhonda Anderson, Coordinator of the Sierra Club Detroit Environmental Justice Project, oil companies "are discharging

pollutants directly into the water... We have two choices--clean energy or dirty energy. The tar sands are the second option--they are not clean... These industries are not working for the people of this community.”

The Detroit Marathon Refinery



Basic Facts

- The refinery sits on roughly 200 acres near I-75 in southwest Detroit^x
- The refinery has a capacity of 102,000 barrels per day (bpd)^{xi}
- There are roughly 300 employees at the refinery however this number will increase following the mid-2012 completion of the Detroit Heavy Oil Upgrade Project (Detroit HOUP).^{xii}
- Products produced include: gasoline, isobutene, propane, propylene, kerosene, diesel, fuel, oil, asphalt, and sulphur.^{xiii}

Upcoming

- The Detroit Heavy Oil Upgrade Project:
 - October, 2007^{xiv}, with a 7-2 vote, Detroit City Council approved expansion of the Marathon refinery in Detroit – the expansion project has been dubbed the Detroit Heavy Oil Project (Detroit HOUP)^{xv}
 - Two points of view:
 - Council President Ken Cockrel Jr. voted for the expansion on the basis that Marathon would act responsibly in monitoring air quality and emissions as well as create many jobs benefiting the economy.^{xvi}
 - Two City Councilwomen JoAnne Watson and Monica Conyers voted against the expansion based on the environmental impacts that would include a 10% increase in air emissions including carbon dioxide and fine particulates. ^{xxvii}
 - The goal of the project is to give the refinery the ability to process heavy, more viscous crude oils from the Alberta oil sands.
 - The project began in June 2008 and is expected to be completed sometime in mid-2012^{xviii}
 - Completion of the project will increase production capacity of the Detroit refinery from 102,000 bpd to 115,000 bpd. This is an increase of more than 400,000 gallons of transportation fuels a day^{xix}
 - The cost of the project is roughly \$2.2 billion and will supposedly add approximately 60 fulltime employees and 75 fulltime contractors to the refinery^{xx}
 - The project includes adding new equipment to the current refinery and the construction of a new section of pipeline.



Source: <http://www.detroitoup.com/refinery-construction.html>

- Pipeline Info:
 - As a part of the Detroit HOUP, Marathon will begin construction of “a new section of pipeline, approximately 29 miles long, in portions of Monroe and Wayne counties. This new section of pipeline will connect to Marathon’s existing crude oil pipeline to deliver additional supplies of heavy crude oils to its Detroit refinery”^{xxi}.
 - The 24-inch pipeline will parallel the existing Marathon Petroleum Company Ltd. (MPL) pipeline where practical. Marathon is recommending re-routes around the original pipeline built in 1960 to avoid environmentally and culturally sensitive areas as well as areas in which homes and other structures have already been built^{xxii}
 - “The Canadian crude oil will flow from the Alberta Province to MPL’s Samaria station in Monroe County’s Bedford Township through a series of pipelines in the Mountain West and the upper Midwest regions of the U.S. The new section of Detroit HOUP pipeline will begin at the Samaria station and cross portions of Monroe and Wayne counties en route to the Detroit refinery”^{xxiii}
 - There will be a one-time payment from MPL (Marathon Petroleum Company Ltd.) “to each property owner for the right to use the land. Compensation based on fair-market value will be negotiated one-on-one with the individual property owners”^{xxiv}
 - As of June 2007, the Michigan Public Service Commission authorized MPL to build and operate a new section of pipeline. Land agents working for Marathon are negotiating with property owners in both Monroe and Wayne counties “to acquire the necessary right-of-way easements for the new section of pipeline”^{xxv}



Source: <http://www.detroitoup.com/map.html>

General Expected Impacts

- Increased air and water pollution around the refinery and the great lakes
- Increase in carcinogens released from the refineries
- The project is projected to generate \$174 million in new tax revenues for the city of Detroit through 2030^{xxvi}
- \$16.5 million added to the refineries existing payroll of \$74 million^{xxvii}
- Upon completion of the project total construction wages will exceed \$350 million
- “Based on the anticipated cost of the pipeline, MPL estimates it will pay \$1.7 million annually in property taxes beginning in the year when it is constructed. These annual property tax payments will be allocated among the local governmental units the pipeline crosses”^{xxviii}.

Environment

- One of the main concerns of environmental groups in regards to the \$Billion Marathon expansion is the large increase in GHG emissions and air pollutants, which are a concern for both the environment and society.^{xxix}
 - The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration have indicated in a letter to Marathon’s Vice-President of Operations, 6 possible violations in regards to pipeline safety regulations.^{xxx} Violations included:
 - Not inspecting surface conditions on large sections of their pipeline
 - Failing to keep block valves in good working order at all time
 - Failing to place adequate cathodic protection on a new section of pipeline within one-year
 - Failure to obtain cathodic protection readings at several casings
 - Failure to accurately document the inspection of pipes.
 - Failure to complete atmospheric corrosion inspections. During the government audit, it was discovered that three sections of pipeline that had not been inspected were exposed to such corrosive conditions.

Social

- People around the refinery “suffer disproportionately in terms of asthmatic rates, their sleep patterns are disrupted, and they have to contend with all the dirt generated by truck traffic in the area”^{xxxix}
- Eric Schaeffer of the Environmental Integrity Project is concerned that too little progress has been made in regards to reducing carcinogen emissions from refineries in the United States. He argues that evidence continually shows that such toxic pollutants are “grossly underestimated, or not reported at all”. Concern also rests in the fact that most refineries such as Marathon in Detroit are “within breathing distance of where people live, work, and go to school”^{xxxix}
- Many Detroit area residences, despite the economic opportunity, are weary of a Marathon expansion project. Detroit-area resident Lucille Campbell states: “I have a list of the chemicals that Marathon spews out and what cancers it causes. People are dying. People are sick ... we want to have jobs and all these kinds of things, but we need for it to be done right. As far as I’m concerned, Marathon can go someplace else”^{xxxix}
- The community surrounding the Marathon refinery suffers from high unemployment levels which makes Marathon’s expansion proposal economically appealing to the majority of the community

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- ⁱ Tar Sands Showdown by Tony Clarke
- ⁱⁱ <http://www.canada.com/windsorstar/story.html?id=4cb4ab4f-772e-47fc-8a01-3e0621454330&k=93563>
- ⁱⁱⁱ <http://www.theweathernetwork.com/index.php?product=airquality&airqualitycode=on&pagecontent=airqssummary>
- ^{iv} Gilbertson M, Brophy J (December 2001). "Community health profile of Windsor, Ontario, Canada: anatomy of a Great Lakes area of concern". *Environ. Health Perspect.* **109 Suppl 6**: 827–43.
- ^v http://www.forbes.com/business/free_forbes/2004/1115/134.html
- ^{vi} http://www.forbes.com/business/free_forbes/2004/1115/134.html
- ^{vii} http://www.forbes.com/business/free_forbes/2004/1115/134.html
- ^{viii} <http://www.toxicnation.ca/node/94>
- ^{ix} <http://www.servicecanada.gc.ca/eng/on/offices/2009lmb/windsor.shtml>
- ^x http://www.marathon.com/Global_Operations/Refining_Marketing_and_Transportation/Refining/Detroit_Michigan/
- ^{xi} http://www.marathon.com/Global_Operations/Refining_Marketing_and_Transportation/Refining/Detroit_Michigan/
- ^{xii} http://www.marathon.com/Global_Operations/Refining_Marketing_and_Transportation/Refining/Detroit_Michigan/
- ^{xiii} http://www.michigan.gov/dleg/0,1607,7-154-10573_11472-216523--,00.html
- ^{xiv} <http://www.michronicleonline.com/articlelive/articles/1864/1/Council-approves-Marathon-refinery-expansion/Page1.html>
- ^{xv} <http://www.michronicleonline.com/articlelive/articles/1864/1/Council-approves-Marathon-refinery-expansion/Page1.html>
- ^{xvi} <http://www.michronicleonline.com/articlelive/articles/1864/1/Council-approves-Marathon-refinery-expansion/Page1.html>
- ^{xvii} <http://detnews.com/apps/pbcs.dll/article?AID=/20071010/METRO/710100396>
- ^{xviii} <http://www.detroitoup.com/about-the-project.html>
- ^{xix} <http://www.detroitoup.com/FAQ-need-assessment.html>
- ^{xx} <http://www.detroitoup.com/about-the-project.html>
- ^{xxi} <http://www.detroitoup.com/about-the-project.html>
- ^{xxii} <http://www.detroitoup.com/pipeline-route-selection.html>
- ^{xxiii} <http://www.detroitoup.com/about-the-project.html>
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- ^{xxviii} <http://www.detroitoup.com/economic-impact.html>
- ^{xxix} http://www.redorbit.com/news/science/1574380/eip_us_refineries_carcinogenic_pollution_rose_from_20042006_underreporting_of/
- ^{xxx} http://primis.phmsa.dot.gov/comm/reports/enforce/documents/320075024/320075024_NOPV%20PCP_09052007.pdf
- ^{xxxi} <http://www.michronicleonline.com/articlelive/articles/1864/1/Council-approves-Marathon-refinery-expansion/Page1.html>
- ^{xxxii} http://www.redorbit.com/news/science/1574380/eip_us_refineries_carcinogenic_pollution_rose_from_20042006_underreporting_of/
- ^{xxxiii} <http://gcmonitor.org/article.php?id=709>