



City of Bloomington  
Common Council

Approving the  
Bloomington Peak Oil Task Force Report

Legislative Material

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**Item Two – Res 09-18**  
**Item Two – Res 09-18 – Approving the Peak Oil Task Force Report as an  
Advisory Document**

**Res 09-18** approves the report of the Bloomington Peak Oil Task Force. The report tracks community vulnerabilities to a decline in cheap oil and outlines strategies for mitigation. The report makes it clear that it is advisory in nature and that the recommendations therein shall be prioritized and implemented by City staff based on feasibility, cost and community feedback. The Task Force shall sunset subsequent to the approval of its report.

The proposed Task Force report is incorporated in the resolution as Exhibit A. Exhibit A provides a link to the report. The report can also be found here: [\*Redefining Prosperity: Energy Descent and Community Resilience – Report of the Bloomington Peak Oil Task Force\*](#)

**Policy Prologue**

As you are aware, the Bloomington City Council and Mayor acknowledged the phenomenon of peak oil in 2006 with the passage of *Res 06-07: Recognizing the Peak of World Oil Production*. In late 2007, the City strengthened its commitment to mitigate the effects of peak by establishing the Bloomington Peak Oil Task Force. As spelled out in *Res 07-16: Establishing a Bloomington Peak Oil Task Force*, the charge of the group was to assess the community's vulnerability to changing energy markets and to develop researched and prudent strategies. The *Resolution* called for the Task Force to document its findings in a report for approval by the Mayor and City Council.

**The Task Force**

The Task Force includes the following members: Dave Rollo (chair), Peter Bane, Gary Charbonneau, Clay Fuqua, Christine Glaser, Stephanie Kimball, Jim Silberstein and Gregory Travis.<sup>2</sup> Members hailed from disciplines as diverse as economics, permaculture, biology, and business. While each Task Force member brought distinct talents and skills to the group, collectively, the group worked

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<sup>2</sup> As provided by Resolution 07-16, the Task Force is a seven-member board. Member Silberstein resigned from the Task Force in February 2009 due to family and professional commitments. Member Fuqua was appointed by the Mayor in March 2009 to fill Silberstein's seat. Member Silberstein has reviewed this Task Force's report and supports the document.

tirelessly as a team to take a systemic look at the ways in which our community is vulnerable to a decline in cheap oil and to develop reasonable mitigation strategies.

Beginning in March 2008, the seven members of the Task Force met bi-weekly to work through vulnerabilities and solutions. Task Force volunteers have logged over 100 hours in meeting time alone and many, many more hours drafting, reviewing and discussing the report.

The Task Force has aimed to make its work as transparent as possible. Members of the Bloomington community frequently attended our meetings. For those unable to attend, Task Force meetings were broadcast via our local Cable Access Television Service (CATS) since August 2008. Members of the Task Force have also given several public talks.

### **Collaboration with City staff and area stakeholders**

The Task Force could not have engaged in this analysis and drafted this report without the assistance of scores of people. As noted in the *Acknowledgements* section of the report, City staff have been exceedingly helpful in helping the Task Force gather data, checking the group's numbers and offering accuracy feedback. Similarly, the Task Force sought expert feedback from a number of non-City staff: Lew May of Bloomington Transit, Terry Usrey of the Southern Indiana Renewable Energy Network, Ron Walker of the Bloomington Economic Development Corporation, Christy Gillenwater of the Greater Bloomington Chamber of Commerce, Nate Hagens of the GUND Institute for Ecological Economics all met with the Task Force at different junctures.

### **The Report**

#### ***Structure***

The report is entitled *Redefining Prosperity: Energy Descent and Community Resilience* and aims to map out prudent – but bold – recommendations to make our community more resilient to a decline in cheap oil. The report is parsed into six subject matter areas with each member assuming responsibility for analyzing a subject: The Economic Context (Charbonneau), Municipal Services (Rollo and Rhoads), Land Use (Travis), Transportation (Glaser), Housing (Kimball) and Sustenance (Bane).

### *Changes from October Draft*

The report attached hereto is substantially the same as that sent to Councilmembers and the Mayor in October. However, the group did make a few changes to the report. The changes are tracked below:

- Most of the changes aimed to clean up some typographical and formatting errors.
- Chair Rollo added a *Preface*.
- Chair Rollo added an appendix on factors affecting global decline rate (*Appendix I*). All other appendices and references thereto were subsequently renumbered.
- In the interest of consistency, deleted the “For City Government” section of the Sustenance subsection on water. All recommendations re: City water service are captured in the *Municipal Services* section.
- Added back in a quote at beginning of Land Use Chapter that had previously been edited out.<sup>3</sup>
- Replaced all maps with higher-quality versions.
- Changed most “requirement” language to “encouragement” language.
- Added another reference<sup>4</sup> to the *Further Reading* section of the report.
- Deleted reference to an INDOT chart on p. 147 that was no longer needed as the chart had been deleted from the October version of the report.
- Added a few more names to the *Acknowledgements* page.

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<sup>3</sup> “The cities will be part of the country; I shall live 30 miles from my office in one direction, under a pine tree; my secretary will live 30 miles away from it too, in the other direction, under another pine tree. We shall both have our own car. . . . We shall use up tires, wear out road surfaces and gears, consume oil and gasoline. All of which will necessitate a great deal of work . . . enough for all.” Le Corbusier, *The Radiant City* (1967)

<sup>4</sup> Richard Heinberg, *Blackout: Coal, Climate and the Last Energy Crisis*. New Society Publishers, 2009.

## ***Content***

The report is premised on the idea that oil is a finite, non-renewable, resource whose production will eventually peak. Citing authorities, the Task Force locates the point of peak oil production somewhere between 2008 and 2015. Pointing to many recent analyses, the group endorses the view that peak oil production likely occurred in July 2008.

The report is divided into six primary subject matter chapters. Each chapter looks at a subject through a three-pronged analysis. First the group examined relevant data. Secondly, it looked at the way oil infuses each of the subject areas and the way such saturation makes the community vulnerable to a decline in cheap oil (for example, the way our transportation infrastructure is 95 percent reliant on petroleum or the way oil accounts for most of the growing practices and transport of our current agricultural system). Lastly, it worked to outline prudent mitigation strategies.

As stated in the report's *Introduction*, the recommendations of the group were guided by the following principles:

- **Sustainability**: Recommendations should foster environmental integrity, equity and economic health. They should also be more than short-term fixes.
- **Actionability**: Recommendations must be specific and be "implementable." Toward this end, the Task Force organized its work into goals and strategies which are best implemented in short, medium or long-term.
- **Conservation-Focused**: While places in the report focus on new energy sources and greater efficiencies, the report's overwhelming call is for conservation.

The vision of the Task Force is for a prosperous and resilient post-peak Bloomington. As discussed in the *Executive Summary*, the group, "envisions a post-peak Bloomington wherein most residents live within walking distance of daily needs; most of the food required to feed residents is grown within Monroe County; residents can easily and conveniently get where they need to go on bike, foot or public transit; most of the community's housing stock is retrofit for energy

efficiency; and local government provides high-quality services to its residents while using less fossil fuel energy.”<sup>5</sup>

The Task Force maintains that, “[w]hile peak oil presents our community with serious challenges, it also presents us with an opportunity to make a great community even better.”<sup>6</sup>

The report’s *Executive Summary*, provides a selective review of recommendations:

**Economic Context.** Bloomington and Monroe County are clearly part of both national and global economies and our reliance on a steady supply of inexpensive goods from as far away as half-way around the world makes us vulnerable to a decline in inexpensive oil.

*Mitigation:*

- Promote economic relocalization through “Buy Local!” initiatives; encourage a Local Exchange Trading System and cooperate with *Transition Bloomington*.
- Examine sector dependence on oil.
- Develop and deploy sustainable forms of energy.
- Develop and promote green jobs.

**Municipal Services.** As the price of oil both becomes more volatile and more expensive, so too will the price of electricity, natural gas, and other energy resources. It will become more expensive for the City to: treat and pump drinking water; treat its wastewater; provide fuel for law enforcement and fire protection; heat and cool municipal buildings; and pick up trash and recycling. Similarly, the City will also experience a general increase in cost of just about anything that relies on energy to produce and transport it.

*Mitigation:*

- Explore hybrid energy (hydroelectric-solar) generation to complement existing power at the water treatment plant.
- Encourage more rainwater capture by residents and the City.
- Offer energy efficiency and water conservation incentives to residents.
- Expand water storage capacity.
- Transition all back-up generators to renewable sources of energy.
- Develop a community compost program.
- Establish waste reduction goals -- *Zero Waste Bloomington* by 2040.
- Explore sludge-to-biogas energy generation at the wastewater treatment

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<sup>5</sup> *Executive Summary*, ii.

<sup>6</sup> *Ibid.*

plant.

- Develop a fuel allocation plan wherein, in the event of a fuel shortage, the Police and Fire Departments are given greatest priority.
- Replace patrol cars with electric vehicles.
- Investigate police pursuit vehicles that do not rely on fossil fuels and transition over to such vehicles as this technology improves.
- Explore alternatives to asphalt.
- Offer carpooling incentives to employees.
- Reduce the size of the City fleet through partnerships with car sharing groups.

**Transportation.** Of all sectors, transportation is the most petroleum dependent and the most vulnerable to a disruption resulting from declining world petroleum supplies. Ninety-seven percent of transportation energy is reliant on fossil fuel. In Monroe County, we drive approximately 2.8 million miles *per day*. That's like driving one car around the Earth at the equator 112 times in one day.

*Mitigation:*

- Bring daily necessities closer to where people live.
- Establish ride and car sharing programs.
- Increase connectivity & the number of planned "lengthy corridors" for bicyclists.
- Make bus transportation faster and more attractive.
- Seek funding improvements for Bloomington Transit.
- Encourage Bloomington Transit to transition its bus fleet from one relying on diesel fuel to one relying on locally-produced biogas.
- Work toward a regional Comprehensive Land Use and Transportation Plan involving the City of Bloomington, Monroe County, and Indiana University that fosters bicycle, pedestrian, and transit-friendly changes in land use.
- Encourage commuter rail between Bloomington and other cities.
- Encourage bus service between Bloomington and downtown Indianapolis.

**Land Use.** When it comes to land use, the physical separation of where we live from where we carry out the activities of everyday life – work, food, school, health care, and community – is by far the biggest threat posed by the end of cheap oil.

*Mitigation:*

- Through zoning and other land management tools, encourage the redistribution of land use to bring about denser living arrangements, and a closer integration of residential and commercial activity, thus reducing the total amount of intra-city transportation required. We must restructure our community to provide high-density, multi-use arrangements friendly to transit, bicycles, and pedestrians.
- Update the City's land use documents with an eye to peak oil.
- Target public transit routes to help shape neighborhood development.

**Housing.** An aging grid, paired with the likelihood that more and more people will turn to electricity to power their cars, means that the grid will be increasingly taxed. In Indiana, the grid is powered by coal-generated energy. Coal relies on oil for extraction and transportation. Absent efficiency improvements, it will be ever-more expensive to heat our homes.

*Mitigation:*

- Engage in outreach to reduce energy demand through conservation.
- Work to retrofit 5% of homes for energy efficiency per year.
- Explore the possibility of local power generation from renewable sources.
- Establish loans and incentives for installation of renewable energy.
- Create incentives to make rental units more energy efficient.

**Sustenance** can be understood as the maintenance and nurturance of health and life. The elements of sustenance include: food, water, waste handling, and health care. At present, these elements are provided by private companies, government, and publicly-owned corporations and are entirely dependent on petroleum. Indeed, less than 2 percent of the food consumed by city residents is produced within the city, its surrounding region or the state.

*Mitigation:*

- Work closely with the private sector and Indiana University to outline a detailed plan for community food security. Adopt a *Food Security Resolution*.
- Plant edible landscapes on public property.
- Organize City-led horticultural services to include the collection, processing, and distribution of organic waste.
- Increase local food storage.
- Train and deploy more urban farmers.
- Remove or reduce legal, institutional, and cultural barriers to farming within and around the city, and open institutional markets to local food.
- Establish food-business incubator programs with access to community kitchens.
- Dedicate public land to intensive gardening and farming.
- Work toward a year-round regional farmers' market.
- Work toward the establishment of a local land trust for the banking of farmland.
- Work toward providing more local or regional organic food to Monroe County Community School Corporation, Indiana University, Ivy Tech, and Bloomington Hospital.
- Create a local, publicly-controlled seedbank.
- Encourage water conservation through outreach and incentives.
- Create community composting sites.
- While the City has little direct influence over health care, it can work with stakeholders to advocate for a health care system that is resilient even in the face of peak oil. Specifically, as a community we should: encourage a mobile medical corps for house calls; encourage more neighborhood health clinics and doctors' offices; and support a concentration of essential medical services to remain in the central city location accessible by public transit and pedestrians.<sup>7</sup>

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<sup>7</sup> *Ibid.*

**RESOLUTION 09-18**

**APPROVING THE REPORT OF  
THE BLOOMINGTON PEAK OIL TASK FORCE AS AN ADVISORY DOCUMENT**

- WHEREAS, The Common Council has passed Resolution 06-05: Supporting the Kyoto Protocol and the Reduction of Greenhouse Gases and the Mayor has signed on to the *U.S. Mayors' Climate Protection Agreement*, the success of which both hinge on reducing fossil fuel emissions; and
- WHEREAS, The Bloomington Common Council passed Resolution 06-07: Recognizing the Peak of World Petroleum Production which called for the City and community to prepare for the inevitability of peak oil; and
- WHEREAS, The Bloomington Common Council passed Resolution 07-16: Establishing the Bloomington Peak Oil Task Force which called for the City to establish a committee whose charge was to assess the community's vulnerability to a decline in cheap oil and to outline prudent, researched strategies to mitigate such a decline; and
- WHEREAS, Members of the Bloomington Peak Task Force were appointed in February 2008; and
- WHEREAS, Since March 2008, the Task Force met bi-weekly to fulfill its charge; and
- WHEREAS, As required by Resolution 07-16, the Task Force has solemnized its recommendations in a report to be approved by both the Mayor and Common Council; and
- WHEREAS, The report is intended to a guiding document and is advisory in nature; and
- WHEREAS, Given the advisory nature of the document, City staff will have discretion to implement recommendations based on feasibility, cost and community feedback; and
- WHEREAS, As outlined in Resolution 06-17, the Task Force shall cease to exist once its final *Bloomington Peak Oil Task Force Report* is approved by both the Mayor and the Common Council; and
- WHEREAS, The report, entitled *Redefining Prosperity: Energy Descent and Community Resilience*, is attached hereto and incorporated herein as Exhibit A;

NOW, THEREFORE, BE IT HEREBY ORDAINED BY THE COMMON COUNCIL OF THE CITY OF BLOOMINGTON, MONROE COUNTY, INDIANA, THAT:

SECTION 1. The Report of the Bloomington Peak Oil Task Force shall be approved as an advisory document.

PASSED AND ADOPTED by the Common Council of the City of Bloomington, Monroe County, Indiana, upon this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
ANDY RUFF, President  
Bloomington Common Council

ATTEST:

\_\_\_\_\_  
REGINA MOORE, Clerk  
City of Bloomington

PRESENTED by me to the Mayor of the City of Bloomington, Monroe County, Indiana, upon this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
REGINA MOORE, Clerk  
City of Bloomington

SIGNED and APPROVED by me upon this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
MARK KRUZAN, Mayor  
City of Bloomington

#### SYNOPSIS

This resolution approves the report of the Bloomington Peak Oil Task Force. The report tracks community vulnerabilities to a decline in cheap oil and outlines strategies for mitigation. The report makes it clear that it is advisory in nature and that the recommendations therein shall be prioritized and implemented by City staff based on feasibility, cost and community feedback. The Task Force shall sunset subsequent to the approval of its report.

# **EXHIBIT A**

*Redefining Prosperity: Energy Descent and  
Community Resilience – Report of the  
Bloomington Peak Oil Task Force*

(linked)



**City of Bloomington  
Office of the Common Council**

**To:** Council Members  
**From:** Dave Rollo, Council Member, District IV &  
Chair of the Bloomington Peak Oil Task Force  
**Re:** Res 09-18 *Approving the Report of the Bloomington Peak Oil Task Force as an  
Advisory Document*  
**Date:** 13 November 2009

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The Bloomington Peak Oil Task Force (POTF) was created by City Council resolution in December 2007 to assess the vulnerabilities of the community to oil price volatility and possible shortages brought about by the impending global peak in petroleum extraction.

The Council interview committee for POTF appointees completed its interviews in February 2008. The interview committee was composed of Councilmembers Volan, Ruff, and Rollo. The Council and Mayor made their appointments to the group in February 2008. The POTF convened in March of 2008, and concluded its meetings in July of 2009, with a time extension granted by the City Council to finish its report.

The Task Force was composed of the following members: Dave Rollo (Chair), Peter Bane, Gary Charbonneau, Clay Fuqua, Christine Glaser, Stephanie Kimball, Jim Silberstein and Gregory Travis. Biographies of the POTF members are found in the last pages of the report. Member Silberstein resigned due to personal obligations in February 2009. (Note that when asked, he indicated his support for the conclusions of the Task Force Report). Member Fuqua was appointed by the Mayor to fill Silberstein's position in March 2009.

Initial discussions by the POTF involved a comprehensive study of the phenomenon of peak oil, and subsequent meetings entailed updates of the global petroleum picture, tracking of production, and consumption, and prices.

POTF often had public in attendance, and were afforded useful information and resources by members of the public. Outreach was greatly aided by being televised by Community Access Television (CATS) for nearly a full year.

POTF (as instructed by the enabling legislation) also conducted outreach and education to the public, including presentations to the Rotary Club, the Science Café series, five classes in several departments at Indiana University, and several city boards and commissions. Letters were composed and sent to the Director of Bloomington Transit (with regard to their long term comprehensive plan), Bloomington Hospital (concerning their possible move outside of the city), and the University Trustees and President (to encourage them to prepare the University for the effects of peak oil).

Oil is systemic to our society and thus our community, and the group sought to establish major subject areas that would explore vulnerabilities and potential remedies within these major domains. These subject areas included: the Economic Context, Municipal Services, Land Use, Transportation, Housing

and Sustenance. These subjects were delegated to individual POTF members, or teams of members (see topic/member responsibility in the *Acknowledgements* page of the report).

Members then researched their assigned topic, consulting experts, current literature, gathering data from government databases, and so forth. Local experts, managers, City staff and NGOs were contacted to find relevant data and solicit feedback. Once information was collected on a topic, the POTF member presented his/her findings and proposals to the group. The group convened for a day-long retreat in May to discuss findings and a structure for the report.

The group consulted local experts for much of its information. For example: Ron Walker, Christy Gillenwater, Danise Alano, and Adam Wason met with members of the POTF to discuss economic implications and preparation; Lew May, Director of Bloomington Transit, talked to the group about public transit; Tom Micuda, Director of City Planning, discussed Planning's role in preparing for peak; Michael Simmons of the City's Parks and Recreation Department discussed local sustenance; Terry Usrey of the Southern Indiana Renewable Energy Network (SIREN) discussed solar energy with the group, and by teleconference, Nate Hagens of the GUND Institute discussed the subject of natural gas production and availability.

The group's report was edited by Stacy Jane Rhoads of the Council Office, with help from Gary Charbonneau and Clay Fuqua. Rhoads also wrote parts of the report and administered the work of the Task Force.

Some of the Major Findings of the Task Force include:

- Peak Oil has likely occurred in July of 2008 (total liquids), while the Task Force was meeting.
- The decline rate of production is unknown, and is dependent on a number of variables (See *Appendix I* of the *Report*). In any case, the rate of decline has a direct bearing on the degree of effort we should expend to cope. The POTF has determined that it is prudent to attempt a 5% decrease in community oil use year-on-year in preparation. The POTF also concurs with the council in their resolution to support the global depletion protocol proposed by Richard Heinberg and Colin Campbell to commence an orderly process of shifting away from petroleum.
- Economic growth has historically required ever greater amounts of energy. A declining energy resource base is incompatible with the current economic model.
- Coal reserves are likely exaggerated, and further work must be done to examine the energy return on investment of estimated reserves (See *Appendix II*).
- Relocalization is a prudent strategy for communities to focus on, to obviate the need for long transport of goods and materials. Rebuilding local economies to provide a diversity of goods and services is an implicit need, but also great opportunity for communities.
- Local food production can be accelerated that could provide a considerable degree of food security for the community.
- Although Bloomington can make some efforts toward increasing its own energy supply, a great deal of potential exists to work on energy demand, through efficiency measures, substitution of low energy requiring technologies, and a behavioral shift that would place a high priority on cooperation, and building community commonwealth.

Some of the Specific Recommendations of the group as recounted in the *Executive Summary* include:

**Economic Context.** Bloomington and Monroe County are clearly part of both national and global economies and our reliance on a steady supply of inexpensive goods from as far away as half-way around the world makes us vulnerable to a decline in inexpensive oil. *Mitigation:*

- Promote economic relocalization through “Buy Local!” initiatives; encourage a Local Exchange Trading System and cooperate with *Transition Bloomington*.
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In all, the Task Force volunteers have spent over 100 hours in Task Force meetings and many more hours beyond that drafting the document. In the end, they've produced a document that is advisory in nature, but, I feel, has great integrity. The Task Force members have worked very hard and I appreciate your support of their final product.