Climate Action Plan

Port Townsend/Jefferson County, Washington

City of Port Townsend & Jefferson County 2011 Climate Action Plan

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An electronic version of this document is available at
http://www.co.jefferson.wa.us/commdevelopment/ClimateChange.htm

Acknowledgements

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This Climate Action Plan was inspired by a grass-roots citizen effort and we appreciate the many hours of research, interviews, meetings, and writings by our citizen volunteers. It is clearly time for an organized approach to addressing global climate change, and by adopting this Plan we commit ourselves to the patience, organization and leadership necessary for its implementation. Special thanks are due to Thomas and Joanna Loehr who provided inspiration and an initial push to get the project started.

More and more cities and counties across the country are taking advantage of opportunities created by addressing global warming now, rather than later. A year ago the city of Seattle commissioned a study to show how they could become carbon neutral by the year 2050. The preliminary report is no surprise - be more energy efficient in buildings, reduce the use of gasoline cars, consume less and recycle more.

Our own Port Townsend/Jefferson County Climate Action Plan echoes those ideas. Many of the specific measures listed for our city and county governments are also appropriate for businesses and individual citizens. Energy efficiency efforts in homes, stores and offices can save money. Walking, biking and riding our bus system can improve health and reduce traffic. Buying local food, products and services helps support local entrepreneurs and keeps profits in the community. As an added bonus, all of these efforts reduce our carbon footprint.

We are aware that our city and county represent a small fraction of this earth's surface and population. Our contribution to global climate change is small, but we recognize our responsibility as global citizens to do what we can to protect this fragile ecosystem now and for those who follow.

Many of us in Jefferson County are already taking action to reduce our carbon emissions, save money, and support the local economy, but we can and must do more. This plan offers many additional ideas for us to consider, individually and collectively. Working together we can improve the vitality of this community and leave it an even better place for future generations.

Michelle Sandoval

Mayor

John Austin

County Commissioner

Executive Summary

A near total consensus of the world's leading climate scientists has concluded that carbon-based fossil fuel emissions from human activity are destabilizing the Earth's climate, making it the most significant challenge for the future of our planet and our community. Average global temperatures and sea levels are already rising, and further climate changes will have far reaching effects on public health, local economies, food production, water supplies, power production, and habitability for many of Earth's life forms.

Reducing carbon emissions is a global challenge that must be met by all of us, locally and beyond. Much of the heavy work must take place at the federal and state level through alternative transportation investments, progressive energy policies, appropriate utility regulations, wise public lands use patterns, and stronger building codes. At the local level, we must also do our part, and both city and county governments must not only lead by example, but must also pursue policies that help our community reduce our carbon emissions.

This Climate Action Plan is a product of the Climate Action Committee (CAC), which was appointed by the Port Townsend City Council and Jefferson County Commissioners in 2007. The council and commission set a goal of reducing county-wide carbon-based emissions to 80% lower than 1990 levels by the year 2050. This document begins to address the immense challenge required to attain that goal.

The CAC ultimately decided on a phased approach to reach our goal. This plan is only phase one. It addresses specifically what the City and County governments can do to lead by example while recognizing that funding and resources are limited. It also recommends measures that the community should consider, as well as outreach, education, and partnership opportunities. Finally, it outlines land use and transportation policies that the City and County should refer to their respective planning commissions for further consideration.

To produce this plan the committee first studied the sources and amount of carbon-based emissions in 2005. This was the year for which good data was available to develop a baseline and then be able to "backcast" an estimate for 1990 and forecast to 2050 with our projected population increase and "business as usual".

Here in Jefferson County, stationary emission sources like buildings and industry contribute 61% and the transportation sector contributes 39% to our emissions. The estimate for 1990 was slightly more than half a

million tons of CO2 equivalent emissions, and the forecast with "business as usual" for 2050 was twice that amount of emissions, or just over one million tons per year.

To set the community on course for the ultimate 2050 goal of an 80% reduction, interim targets were adopted. Due to energy efficiency measures implemented during the past 20 years, mostly at the local paper mill, our community-wide CO2 equivalent emissions are estimated to have gone up only slightly from 1990 to 2005, the baseline year for which we gathered data. In addition we assumed that due to ongoing efficiencies there has been no significant increase between 2005 and 2012. The targets for 2020 and 2030 were arbitrarily set with a straight-line reduction from 2012 to the goal of an 80% reduction by 2050, knowing that this is not the pattern in which emissions are likely to be reduced.

With broad community and government staff input, the committee then compiled a set of potential measures and implementation steps to address each significant source. The plan includes a beginning list of specific actions to be taken by local county and city governments so that they can do their part. It also includes numerous action ideas for the community at large to consider.

The interim targets and ultimate goal of an 80% reduction in emissions may not apply to every sector, every building, every business or every individual. Instead, a reasoned approach needs to be applied that considers many factors, especially cost effectiveness.

A case in point is the Government Sector, which produces less than 1% of the emissions in our county. Some of these are generated by essential services like the fire departments, police and sheriff departments, and water and sewer utilities, where emissions reductions may be very costly or unwise. It may be more cost effective to reduce emissions in the community rather than in the government sector. Some government investments could significantly reduce overall community emissions for example, limited resources may yield greater reductions in emissions in helping homeowners make private homes more energy efficient than in further retrofitting historic government buildings.
In some situations, the most cost effective answer might even yield higher government sector emissions. Another low hanging fruit would be to encourage a shift in transportation mode away from motor vehicle use and toward increased walking, bicycling and transit use. This could be realized by implementing a number of strategies including: a significant investment for expanded Jefferson Transit service; greater investment in walking and biking facilities; a reduction, maximum cap, or elimination of motor vehicle parking requirements; and instituting parking fees in the

commercial centers. These steps would result in a modest increase in Jefferson Transit's emissions but could yield an immense reduction in overall community emissions.

The Government Sector must play a leadership role in continuing to make this challenge a high priority and should do what it reasonably can to reduce its own emissions.

This plan will guide future efforts by the community and provide an innovative framework for the transition to a less carbon-based future. Irrespective of climate change issues, fossil fuels are a finite and costly resource and the steps taken to reduce carbon emissions will lead to a more stable, prosperous and healthy community. Implementing the plan will strengthen our economy, create local jobs, improve social equity, improve public and individual health, reduce our exposure to fluctuations in energy price and energy availability, improve air and water quality, and save money.

I. Introduction

A. General Intro

In the fall of 2007, Jefferson County and the City of Port Townsend made a joint commitment **to achieve a community-wide standard of cutting green house gas emissions[1] to levels 80% lower than 1990 levels by the year 2050** (Appendix A, County Resolution No. 44-07; City Resolution No. 07-022).

To set the community on course for the ultimate 2050 goal, interim targets were adopted as shown in the table below. Due to energy efficiency measures implemented during the past 20 years, mostly at the local paper mill, our community-wide CO2 equivalent emissions are estimated to have gone up only slightly from 1990 to 2005, the baseline year for which we gathered data. In addition we assumed that due to ongoing efficiencies there has been no significant increase between 2005 and 2012. The targets for 2020 and 2030 were arbitrarily set with a straight-line reduction from 2012 to the goal of an 80% by 2050, knowing that this is not the way in which emissions are likely to be reduced.

Table 1 - Baseline Conditions and Emissions Targets

Year	Percent in relation to 1990 levels	Emissions in Tons of CO2eq
1990 (backcast)	100%	522,868
2005 (data base)	3% higher	536,713
2012 (target)	3% higher	536,713
2020 (target)	15% lower	445,737
2030 (target)	37% lower	332,016
2050 (goal)	80% lower	104,574

(For additional details see Section II, Our Goal In our Community, page 18).*

This Jefferson County/Port Townsend Climate Action Plan may at first appear overwhelming, unrealistic, politically infeasible, impossibly expensive and/or absolutely unnecessary. Indeed, these would all be true if the plan were intended for immediate implementation with only local funding and resources and without significant policy changes and additional support from state and federal governments. That is NOT how this plan is meant to work.

The plan proposes ambitious carbon-reduction efforts that promise to benefit the region's long-term economic, social and environmental prosperity while we lower our greenhouse gas emissions. By adopting this climate action plan, the City and County are not obligated to implement all the policies described herein. Rather, the activities listed

are intended as a menu of ideas from which can be selected over time the specific actions that are affordable, feasible, and appropriate for our community. Measures can be phased in as funding and resources become available.

Port Townsend and Jefferson County governments have already taken many steps towards trying to reduce energy use and the resulting greenhouse gas emissions. They range from buying and using electric and hybrid vehicles to building a LEED Silver certified City Hall annex.

We must be ready with a comprehensive, long-term plan in order to take advantage of funding and other opportunities as they arise. Additional strategies will likely be developed over time further to meet the challenges and opportunities posed by global warming and climate disruption.

Other government entities in the Pacific Northwest, like the state of Washington, King and Skagit Counties, Tacoma, Seattle and City of Portland-Multnomah County are also responding to the challenge with climate action plans. Two of the plans, the Skagit County Plan and the Portland-Multnomah Plan, proved to be especially valuable models in the drafting of this plan.

B. How Was the Plan Created?

The Jefferson County- City of Port Townsend Climate Action Plan is the culmination of a multi-year process, various stakeholders were represented on the committee (Appendix B) and numerous public meetings were held including two separate series of open houses. Launched in the Fall of 2007 by the City and County's joint commitment to reduce carbon emissions[1], the process to develop the Climate Action Plan followed the 5-Milestone process developed by ICLEI Local Governments for Sustainability (www.iclei-usa.org):

[1] The City and County committed to reduce community-wide carbon emissions[1] by 80% from the 1990 level by the year 2050 (County Resolution No. 44-07; City Resolution No. 07-022).

Milestone One - Conduct a baseline emissions inventory - was completed by the Climate Protection Task Force, a motivated group of citizen activists (Appendix C). Working in collaboration with City and County staff and with technical support from ICLEI the task force compiled the 2005 emissions inventory for both community-wide and municipal operations. The inventory was adopted by City Council and the Board of County Commissioners (BOCC) on January 12, 2009 (City Resolution 09-022 and County Resolution 06-09). A copy of the complete inventory is available for public inspection at the City and County planning departments and is posted on the County website at http://www.co.jefferson.wa.us/commdevelopment/ClimateChange.htm

The Climate Action Committee (CAC), appointed by the Council and BoCC, continued to build on the momentum initiated by the task force. Per the adopted scope of work, the CAC was tasked with establishing interim targets **(Milestone 2)** and developing a Climate Action Plan **(Milestone 3).** This Action Plan provides guidance on implementation **(Milestone 4)** and outlines a monitoring program **(Milestone 5)**.

More detailed guidance was provided in the Climate Action Committee Workplan[2]. CAC members completed the following steps:

- Develop Initial List of Potential Measures to Reduce Emissions – The committee brainstormed ideas and borrowed ideas from numerous sources including but not limited to: ICLEI Milestone guide, State CAT report, Natural Capitalism Solutions Climate Protection Manual for Cities, and models from other jurisdictions. In crafting the list of potential measures, the Committee was directed by the adopted resolution, to apply the following hierarchical approach:

  Conservation/Efficiency Measures
  Voluntary/Incentive based interventions
  Regulatory controls

- Identified Existing Measures – CAC members interviewed various community leaders (including but not limited to US Navy, City and County Department Heads, Port Townsend Paper Mill, etc.) to identify existing measures. Where feasible, emissions savings were estimated.

- Conduct a Series of three Open Houses - In October 2008, three open houses were conducted in Port Townsend, Brinnon, and Chimacum to inform the public of the adopted goal and solicit input on potential measures.

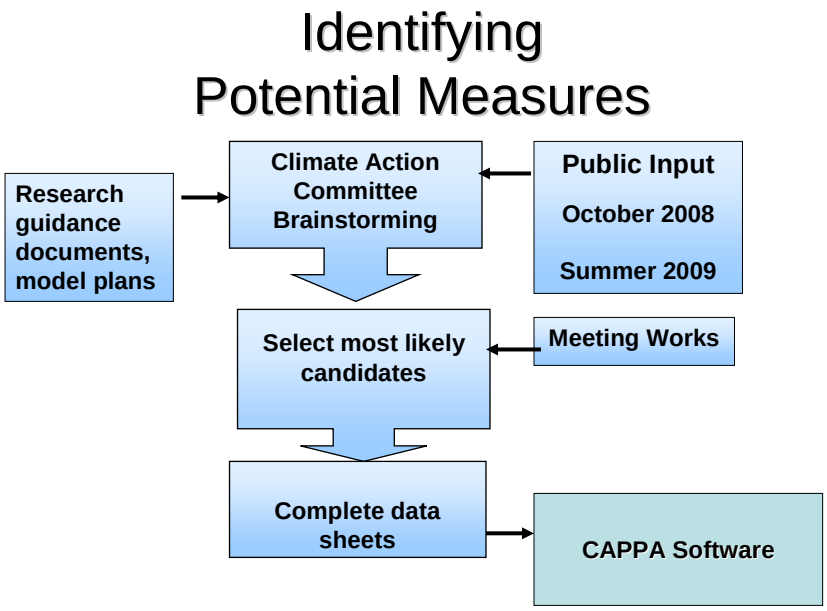
- Conduct Backcasting and Forecasting of GHG Emissions and Proposed Interim Targets for Reductions.

- Solicit Input on Potential Measures from State Departments of Commerce and Ecology as well as ICLEI support staff.

- Refine the List of Potential Measures – CAC members narrowed the list of potential measures to those that seemed the most promising given various factors including potential benefit/emissions reductions, cost, and public perception. The committee was aided by Kathryn Lamka and the MeetingWorks software. A software tool, Climate and Air Pollution Planning Assistant (CAPPA) designed by ICLEI was then used to compare the relative benefits and help identify those most likely to be successful. CAPPA includes a customizable and expandable library of more than 110 distinct emissions reduction strategies for local governments. Its calculation functions are based on real-world data from other U.S. communities and a variety of expert sources.

[2] County Resolution No 02-08; City Resolution No 00-081

- Conduct Series of Open Houses - A Public Discussion Document dated June 9, 2009, was vetted by BOCC and City Council on June 17, 2009. This document was then presented at a series of open house events (Port Townsend, Brinnon, and Chimacum) which included informational displays, a slideshow lecture, and an audience participation activity.



- Compile and Review the Draft Climate Action Plan over a series of noticed public meetings.

C. What's Next?

With adoption of the 2011 Climate Action Plan, the City and County have taken a substantial step forward in meeting adopted goals to reduce GHG emissions, both as organizations and as a region. But there is more work to be done.

1. Implementation:

The target will only be achieved by building a movement that achieves sustained action and coordination across stakeholders and sectors. Key to our success is our ability to generate awareness and educate the community about ways to reduce emissions. This Action Plan recommends:

1) **Specific measures to reduce government sector emissions (Chapter V.A)**

2) **Community outreach and engagement (Chapter V.B) and**

3) **Further consideration of transportation & land use policy (Chapter VI)**

What will implementation cost? In the current challenging fiscal environment, no one is more aware than the City Council and Board of Commissioners of the need to make the best use of the taxpayer dollar and to eliminate waste and overhead wherever possible. For actions targeting government sector emissions, the City and County, with the assistance of the Resource Conservation Manager (RCM), will need to develop an implementation strategy and, during budget proceedings, each will need to consider earmarking funds for implementation of recommended measures. It is anticipated that the City and County will take a phased approach to implementation based on specific types of funding available, feasibility, and rate of return. There will be many competing priorities and at times it will be more effective to help fund activities to reduce emissions in the community sector rather than attempt to make smaller, more expensive reductions in the government sector.

Fortunately, actions that reduce emissions also reduce electricity and fuel use, minimizing energy costs which in turn can also save an enormous amount of taxpayer dollars. Nearly every action in this document will save money, some in the near-term while others will require a longer period for cost recovery.

In 2005, through ICLEI's Cities for Climate Protection ® (CCP) Campaign, more than 160 U.S. local governments reported collective savings of over

23 million tons of global warming pollution and $600 million in related energy and fuel costs. Wise investments in retrofits can reap great rewards; for example, with a total investment of $105,000, the Portland City Hall Renovation Project saves the city an estimated $15,000 a year and $80,000 of upgrades to Fire Station #1 saves $8,000 a year.

2. Climate Change Preparation/Adaptation:
This phase involves an examination of the possible impacts of future climate changes (e.g., increased incidence of drought, flooding, forest fires, and disease, and other impacts like rising sea levels) and developing strategies to deal with these impacts.

3. Endorse Federal and State Initiatives:
The federal government must make fundamental shifts in energy policy and align its vast research and development resources with climate protection. The State of Washington has an invaluable role in transportation investments, strengthening building codes, regulating utilities, managing forest lands, reducing waste and guiding local land use policies. We have an indispensable role in pressuring federal and state governments to support our efforts. Our local action plan therefore also calls for the endorsement of state and federal actions that are required to make our actions both effective and affordable.

We in Jefferson County have the primary role in developing the fundamental shape of our local community, transportation systems and buildings, and in helping individuals make informed decisions about everyday business and personal choices.

In conclusion, this Climate Action Plan will guide future efforts by the City, the County and the citizens with an innovative framework for our transition to a more prosperous, sustainable and climate-stable future. In doing so, it will strengthen local economies, create more jobs, improve health, and help maintain the high quality of life for which we are already known.

[1] Throughout this document, the term “carbon emissions” refers to all greenhouse gas emissions.

II. The Challenge of Climate Change

A. The Problem:

Climate change is the defining challenge of the 21st century. The world's leading scientists report that carbon emissions from human activities have begun to destabilize the Earth's climate. Millions of people are already experiencing these changes through threats to public health, national and local economies, and supplies of food, water and power. Low-income and vulnerable citizens have fewer resources to respond to these changes and are facing disproportionate impacts of climate change and rising energy prices.

As reported by the Department of Ecology, "This increase in greenhouse gases is resulting in an unpredictable climate that is changing rapidly. Our state is particularly vulnerable to a warming climate — especially our snow-fed water supplies that provide our drinking water, irrigation for agriculture- and nearly three-fourth of the electrical power we produce. Close to 40 communities – including some of the state's largest population centers — along our 2,300 miles of shoreline are threatened by rising sea levels. Ocean acidification, which is created when carbon dioxide reacts with seawater and reduces the water's pH, threatens our abundant shellfish. The survival of local salmon and shell fish is at stake, as are the economies that depend upon them." For more information on impacts visit the Department of Ecology website at http://www.ecy.wa.gov/climatechange/index.htm

Unfortunately all of these changes will intensify in the decades ahead even as we begin to reduce our emission. There is a long time lag between changes in emissions and global climate patterns. Our near future climate will first reflect the past century of emissions, while ultimately reflecting our choices today. Efforts to reduce emissions must be coupled with preparations for this climate change.

B. Benefits of an Aggressive Response:

To respond to these intertwined problems — climate change, social inequity, economic stressors, rising energy prices, and degraded natural systems — requires an integrated response that goes far beyond reducing carbon emissions. Climate protection must be linked with actions to create and maintain jobs, improve community livability and public health, address social equity and foster strong, resilient natural systems.

By integrating these elements, Port Townsend and Jefferson County will:

1. Create Local Jobs:
The past decade has proven that many of the technologies, products and services required for the shift to a low-carbon future can be provided by regional and local companies. More dollars currently spent on fossil fuels will stay in our local economy to pay for home insulation, lighting retrofits, solar panels, bicycles, engineering, design and construction.

2. Improve Social Equity:
Low income and vulnerable citizens face disproportionate impacts from climate change in part because they have fewer resources to respond to these changes. We must ensure that impacted communities are included in the implementation of the Climate Action Plan in a meaningful and engaging way. Fortunately, measures that reduce emissions may also serve to improve social equity through increased access to local green jobs, healthy local food, affordable and efficient transportation and energy-efficient homes. We will need to seek out programs that ensure energy efficiency is affordable for all, for example Portland's "Clean Energy Works" program. This program provides financing to homeowners for energy efficiency upgrades. Low income households receive the lowest interest loans. Loans are repaid through the energy cost savings. The program is a model for creation of quality jobs and advancing social equity.

3. Create Healthier Residents:
Walkable neighborhoods, fresh foods and clean air mean healthier, more active residents. The "health dividend" is potentially vast in financial terms and invaluable in its contribution to quality of life.

4. Become More Energy Self-Sufficient and Secure:
Every action in this Plan will reduce reliance on fossil fuels. As prices continue to increase and supplies become more uncertain, a reduced reliance on volatile oil supplies will diminish the risks faced by everyone.

5. Protect and Enhance Air and Water Quality and Natural Systems:
Sustaining the values and functions of our tree canopies, forests, rivers, streams, wetlands and oceans is an essential part of our strategy. It can simultaneously reduce emissions, sequester carbon and strengthen our ability to adapt to a changing climate.

6. Save Money:
Using less energy in our homes, buildings and vehicles means lower energy and transportation costs for residents, business and government. Likewise, home-grown food saves on grocery bills. The savings from reduced health-care costs of a healthy, active community are potentially most significant of all.

III. Our Goal – *Think Globally, Act Locally*

Globally - In its Fourth Assessment report in 2007, the Intergovernmental Panel on Climate Change (IPCC) calculated that developed countries need to reduce their greenhouse gas emissions to 25-40% below 1990 levels by 2020 and to 80-95% below 1990 levels by 2050 in order to keep global atmospheric greenhouse gas concentrations below 450 ppm of CO2e. Subsequent studies indicate that keeping atmospheric CO2e below 350 ppm may be necessary to avoid significant climate impacts, which would require even more significant decreases in GHG emissions.

In 1994, the United Nations Framework Convention on Climate Change (UNFCCC) was formed. The Convention promotes cooperation, information sharing, implementation of national strategies for reducing GHG emissions and adapting to climate change. Recently, participating countries began to submit pledges under the Copenhagen Accord (December 18, 2009) to limit global warming to less than two degrees Celsius (3.6°F) above the average global surface temperatures in the preindustrial era. As of December 2010, 114 countries have submitted pledges, including the United States. In January of 2010, the US administration announced a target to reduce emissions in the range of 17 percent below 2005 levels by 2020, 42 percent below 2005 levels by 2030, and 83 percent below 2005 levels by 2050. Congress has not yet adopted these targets. Unlike the Kyoto Protocol, the Copenhagen Accord is not legally binding.

Table 2: Sample of Pledges Under the Copenhagen Accord[3]

Developed Countries	Quantified economy-wide emissions targets for 2020	Base Year
Australia	5 to 25%	2000
Canada	17%	2005
European Union	20% to 30%	1990
Japan	25%	1990
Russian Federation	15 to 25%	1990
United States	17%	2005
Developing Countries	**Pledge**	
China	40 to 45% emission intensity reduction	2005
India	20 to 25% emission intensity reduction	2005

Source: http://www.pewclimate.org

Unfortunately, a UN report completed in 2010 found that even if all the pledges were met, it is likely that further reductions will be needed to reach the stated goal.[4]

At the State level - More than two years ago, Governor Gregoire committed Washington State as a whole to reducing statewide greenhouse gas emissions to 50% below 1990 levels by 2050.[5] Later in 2007, the Legislature codified these goals. The Department of Ecology (Ecology) is charged with monitoring the state's progress (RCW 70.235.020). Although, according to Ecology, policies currently being implemented will limit Washington's emissions growth to 3 percent between now and 2020; the state is not on track to meet its statutory reduction limit for 2020 or beyond. In a February 7, 2011 News Release, Ecology Director Ted Sturdevant said: "Washington state agencies have taken significant actions to reduce their own energy use and carbon emissions; to work with businesses and others on carbon reductions; to develop a program for reporting greenhouse gas emissions; and to implement the federal program to regulate greenhouse gas emissions

[3] "These numbers target 450ppm for GHG, not the 350 required. Furthermore, many signatories included the following proviso "provided that other developed countries commit themselves to comparable emission reductions and that developing countries contribute adequately according to their responsibilities and respective capabilities."

[4] http://www.climatecentral.org/blog/emissions-reduction-pledges-to-date-fall-far-short-of-copenhagen-accor/

[5] http://www.ecy.wa.gov/climatechange/washington.htm

under the federal Clean Air Act." "However, the actions that nations and states are taking now aren't enough to forestall the impacts of climate change. So we in Washington are building a plan to help prepare our coastal communities and vital infrastructure, ensure water supply in water-short areas, and provide emergency relief for people in prolonged heat waves. It will take all of us working together to be ready for the changes that already are affecting our state."

In our Community - Jefferson County Commissioners and the Port Townsend City Council have committed to the following goals of reducing our estimated 1990 community-wide greenhouse gas emissions (an estimated 536,000 ton CO2e) as follows:[6]

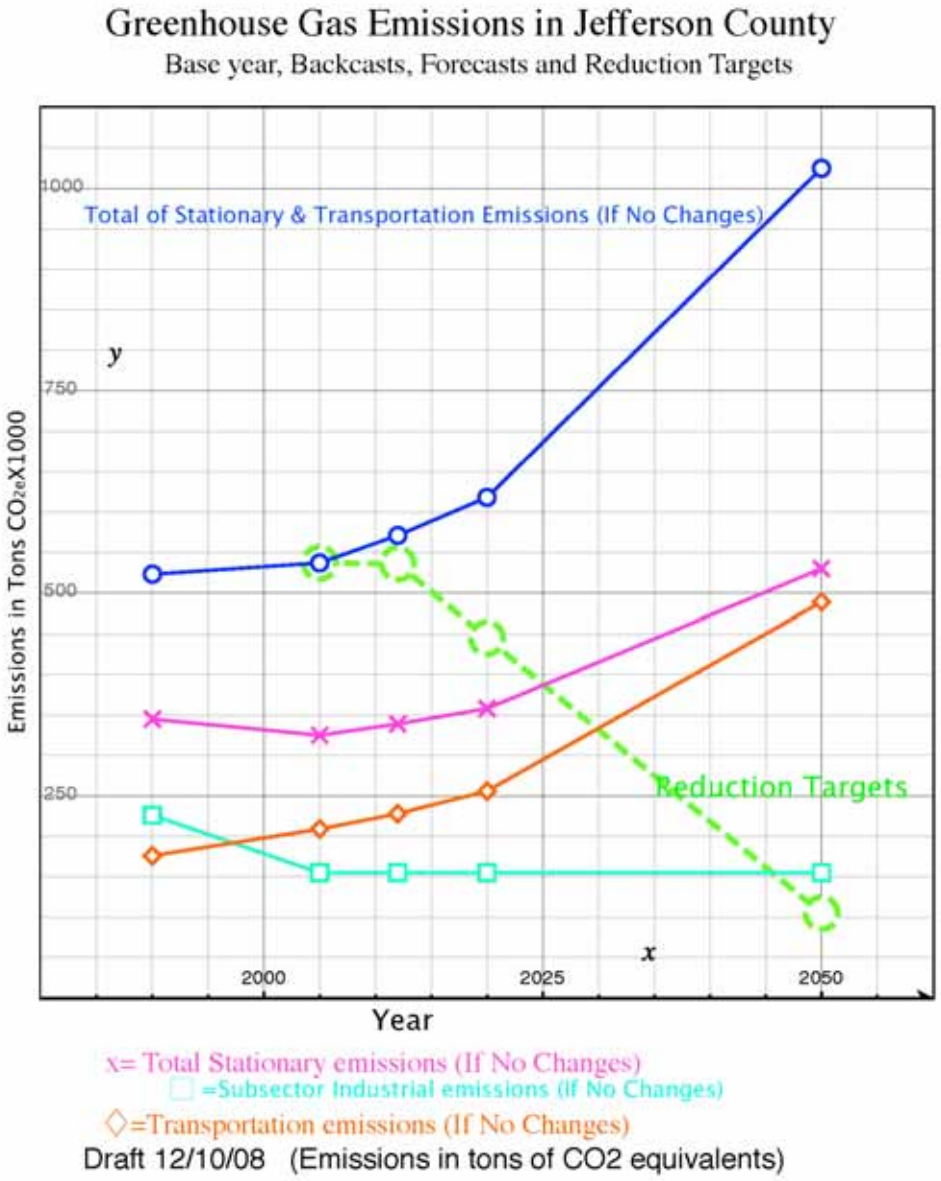
Table 3 - Baseline Conditions and Emissions Targets

Year	Percent in relation to 1990 levels	Emissions in Tons of CO2eq
1990 (backcast)	100%	522,868
2005 (data base)	3% higher	536,713
2012 (target)	3% higher	536,713
2020 (target)	15% lower	445,737
2030 (target)	37% lower	332,016
2050 (goal)	80% lower	104,574

In developing the interim year 2012, 2020, and 2030 targets, the CAC began with calculated 2005 emissions, and then estimated a "backcast" to 1990 and business as usual forecasts. The emission forecast to the target year of 2050[7] represents a "business-as-usual" prediction of how GHG emissions would grow in the absence of GHG policy, including any existing or future legislation at the state or federal level.

The following figure illustrates how the business-as-usual emissions are estimated to increase, thus widening the emissions reductions needed by 2050.

[6] Resolutions 44-07 and 07-022 respectively.
[7] Adopted January 12, 2009 (City Resolution No 00092 County Resolution No 069).



CAC used Clean Air Climate Protection Software, created by ICLEI Local Governments for Sustainability, which allows for computer-calculated backcasting and forecasting using census and estimated population growth data. (For additional detail, please see Appendix C. Worksheets – C02e Forecasts and Targets)

Interim years 2012, 2020 and 2030 were selected for showing emissions from "business as usual" and for interim emission level targets with the rational that this would allow the community adequate time to implement some measures to reduce emissions as we work towards our long-term goal for 2050.

The interim target for 2012 is the same level as our baseline for 2005. It is hoped that due to increasing efforts already underway and new measures planned in the community and by local, state and federal governments, our emissions may have begun to level off and will return

to the 2005 baseline by the year 2012 in spite of continued growth in the population.

After that date, the target follows a straight-line decline in emissions towards our long-term goal, resulting in a target of 17% below 1990 emissions by 2020, and a 38% reduction by 2030.

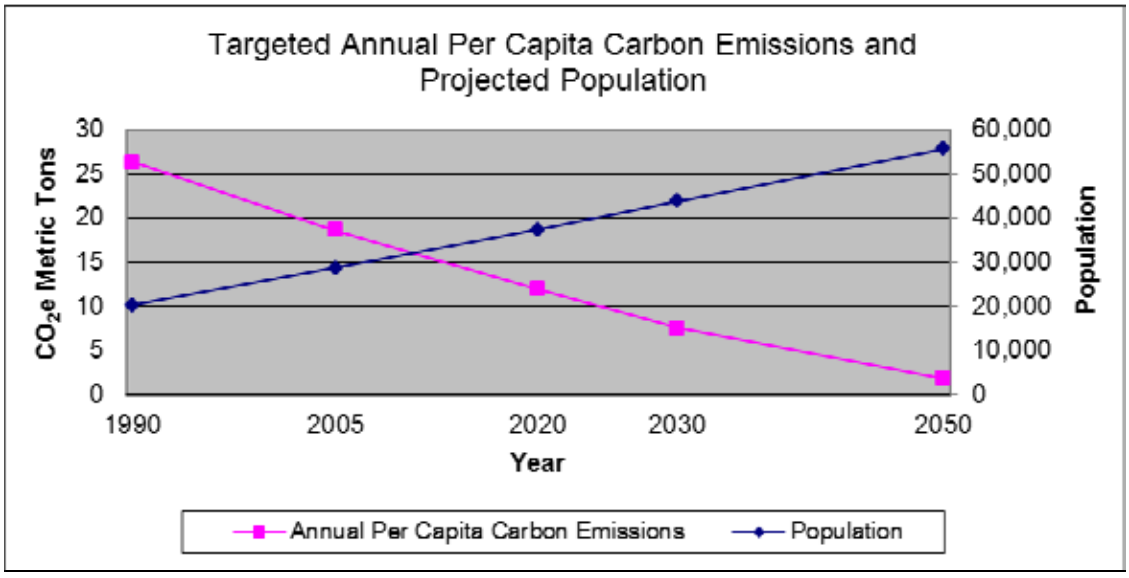
Putting the goals into perspective – how can individuals help?

These targets are difficult to comprehend. What does it mean? What will it take to achieve these targets?

To put the overall targets into perspective, the CAC estimated the per person reductions that would be needed to meet the interim targets. (To be clear, the action plan focuses on actions that the City and County can carry out on their own operations. It encourages, but does not require, individuals to take action to reduce GHG emissions.)

The goal is to reduce emissions despite population growth. Thus, if we were proposing to reach our goal by asking each individual to conserve energy, it would become increasingly more difficult as the population grows.

Figure 4. Annual Per Capita Emissions Targets Compared to Population Growth Over Time



If each of us were willing to reduce our carbon foot print, what would it take to reach the adopted targets?

It may seem impossible to reduce our consumption of fossil fuels and electricity enough for us to attain our goal by 2050. We should recall that it will be easier to do so as new technologies and efficiencies are employed during the next several decades. An example of this is shown in the Climate Action Plan for Portland/Multnomah County. They have estimated that a mere 63% reduction in vehicle miles traveled per capita will result in an 80% reduction in the total CO2 emissions from the transportation sector between 2005 and 2050, in spite of a 94% increase in population. Similarly, they project that they will require an only 68% reduction in per capital electricity use.

Fortunately, there are a myriad of ways to reduce emissions. Portland Climate Action Now provides a number of ideas for reducing your carbon footprint www.portlandclimate action.org (also see Appendix F) for example, eating locally grown foods, switching to an electric mower, etc. Each of us will choose a different combination of ways to reduce energy consumption.

Action must be taken at all levels if we are to succeed.

The Process of change:

Adopting new policies and changing behaviors will take time. The activities in our plan will be implemented gradually and their effect will at first be modest. Over time the effects will increase as ideas spread, additional policies are adopted and the benefits of our actions become more apparent. Our progress will not likely be in a straight line, but rather in a roughly "S" shaped curve with little effect at first while we get started, increasing success as actions are adopted, technologies developed and policies accepted, and then only gradual change again when we finally tackle the most difficult sources of emissions last.

IV. Summary of Inventory of Energy Usage and Associated Greenhouse Gas Emissions

In order to set targets and develop strategies to curb our emissions, an inventory of energy usage and greenhouse gas (GHG) emissions was performed by the Climate Protection Task Force, and adopted by the Jefferson County Board of County Commissioners and the Port Townsend City Council (January 12, 2009). The following is a brief summary. (A complete copy is on file at both the City and County planning departments).

Data was gathered for the Jefferson County community as a whole and for the County and City government operations as subsets of the whole. Energy use and emissions were grouped into 3 different Sectors: Stationary (buildings and equipment), Transportation (on-road mobile sources), and Solid Waste. The Clean Air and Climate Protection (CACP) software provided by ICLEI-Local Governments for Sustainability converted the energy-usage data into units of MMBtu and calculated CO_2e (equivalents of CO_2)released in tons (one ton equals 2,000 pounds).

Table 4. Community-Wide and Government Subset Emissions 2005

Sector or Subsector	Community-Wide[1] (tons CO_2e)	Community-Wide[1] (% CO_2e)	Jefferson County Operations (tons CO_2e)	Port Townsend City Operations (tons CO_2e)
Stationary Energy	**325,133**	**61%**	**1,443**	**1,609**
Residential	121,605	23%		
Commercial	49,017	9%	1,443	1,609
Industrial	154,511	29%		
Transportation	**209,079**	**39%**	**1,886**	**533**
Solid Waste	**2,502**	**<1%**	**35**	
Water, PUD#1[8]			**364**	
Total	**536,714**	**100%**	**3,728**	**2,142**

[8] The inventory included electricity consumed by Jefferson Public Utility District No. 1 to provide water service to County residents.

[1] Community-wide includes County and City operations. [2] Data obtained from CACP Model output.

How do we compare with others?

Table 5. 2005 Carbon Dioxide Annual Emissions per capita

Area	Metric tons of CO_2 per capita
United States	19.3
Canada	17.3
Jefferson County	19.4
Washington State	16.4
Germany	9.8
Sweden	5.7
China	4.3
India, Vietnam, Peru	<1.5

Source: Washington State and Jefferson County numbers from Backcasting and Forecasting of GHG Emissions and Proposed Targets for Reductions in Jefferson County **(available on the Jefferson County website** http://www.co.jefferson.wa.us/commdevelopment/ClimateChange.htm); remainder taken from: Wikipedia which provides a list of countries by carbon dioxide emissions per capita from 1990 through 2007. All data were calculated by the US Department of Energy's Carbon Dioxide Information Analysis Center (CDIAC), mostly based on data collected from country agencies by the United Nations Statistics Division.

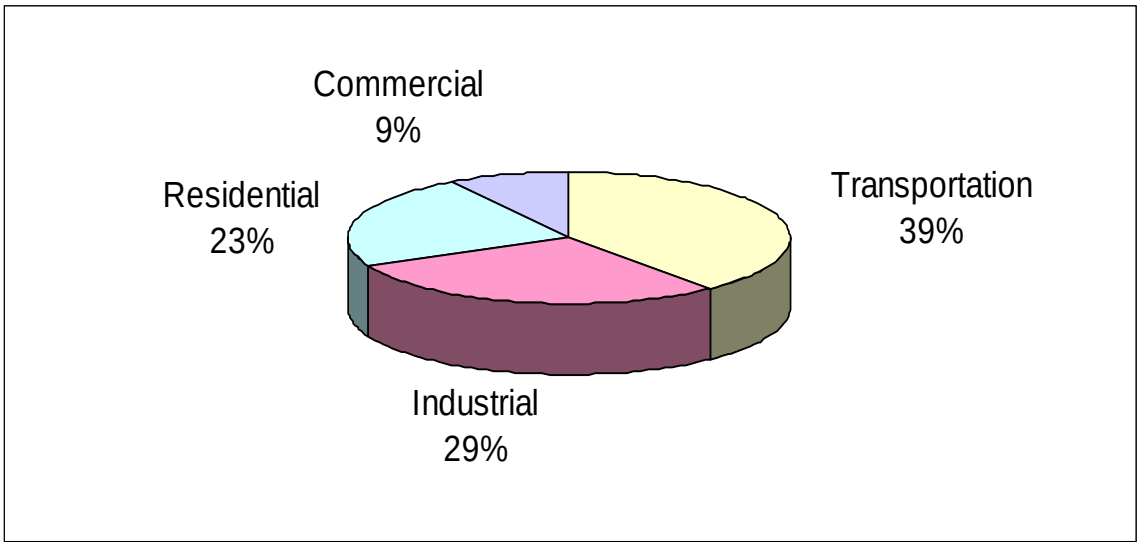
Why would per capita emissions be higher in Jefferson County than elsewhere in Washington State? To answer this we turn to the source of the emissions -

What is the source of these emissions?

As depicted in the Community-Wide Summary below, the transportation sector is the largest emitter of GHG, representing 39% of community-wide emissions. Vehicle miles traveled (VMT) for Jefferson County in 2005 were 1.3 times greater than the Washington State average. This helps explain why the total CO_2e emissions of 19.4 tons per capita (Table 5 above) in Jefferson County were 1.2 times greater than the value for the entire state.

Stationary Sector emissions account for 61% of total GHG emissions community-wide, with approximately one-half coming from electricity usage. Stationary sources refer to emissions generated from fixed places or objects, such as buildings and machinery. Stationary emissions include electricity, fuel oil, propane, and wood used in the Residential, Commercial, and Industrial Sectors

Figure 5. ***Community-Wide CO_2 Emissions in 2005***
THIS FIGURE IS MISSING???



Emissions are for Transportation Sector and for Residential, Commercial and Industrial Subsectors of the Stationary Energy Sector. Emissions from the Solid Waste Sector were too small to include. Data obtained from CACP Model output.

The inventory identified a very different profile for the City of Port Townsend when compared to the County. Thus, the two may have different priorities when it comes to reduction strategies.

Figure 6. ***Port Townsend City Operations - CO_2e Emissions in 2005***

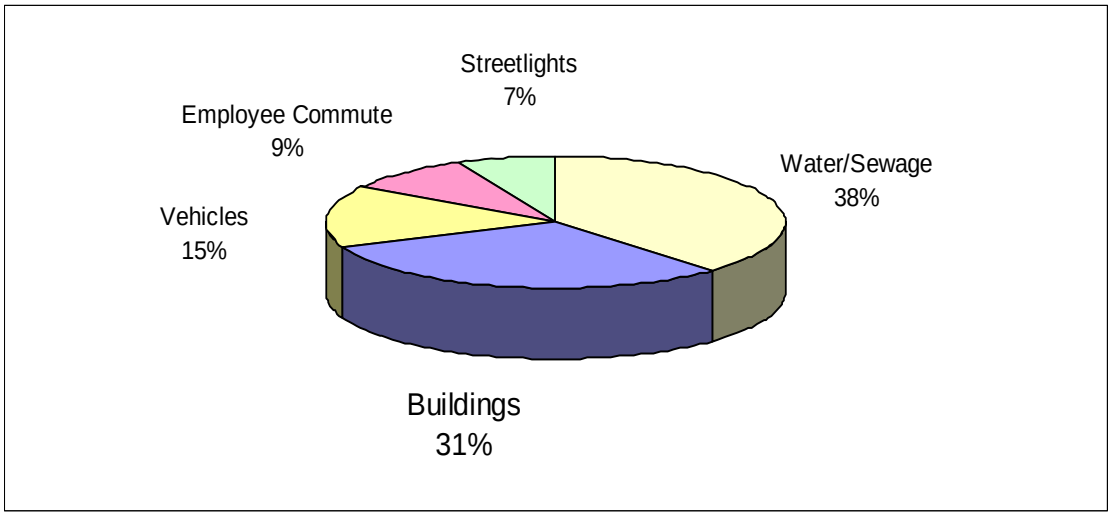
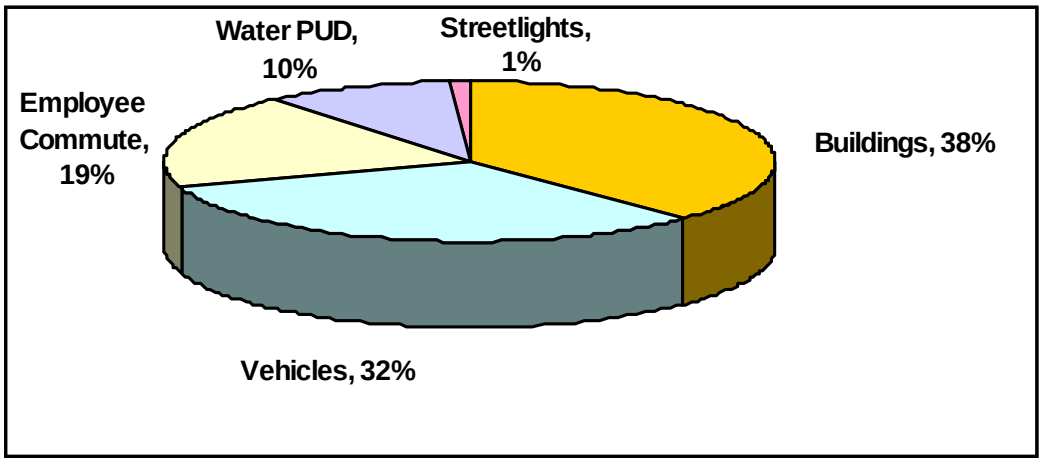


Figure 7. ***Jefferson County Operations – CO_2e Emissions in 2005***



Source: CACP Model output

It should be noted that at the time of the inventory, Puget Sound Energy (PSE) was the sole electric purveyor to Jefferson County. PSE's fuel mix for electricity delivered in 2010 consisted of: 41% Hydroelectric, 36% Coal, 20% Natural Gas, 1% Nuclear, and 2% Other (Source of data: PSE). The Jefferson County Public Utility District (PUD) is in the process of purchasing the local electric infrastructure from PSE. The PUD has a contract to buy power from the Bonneville Power Administration; BPA power is approximately 85 percent hydro and 15 percent nuclear. But while the change to BPA-supplied power will significantly boost our efforts to reduce carbon emissions, it does not diminish the need to conserve energy and look to green technologies as the local demand for power increases over time.

V. The Plan: Objectives and Actions

The goal of reducing greenhouse gas emissions in Port Townsend and Jefferson County by 80 percent (compared to 1990 levels) by 2050 will be difficult, if not impossible, using technologies that are currently available or expected to be available in the near future. Nonetheless, the actions outlined here offer ways to begin reducing greenhouse gases today

The actions contained in this plan provide a menu of recommended measures for the City and the County – the list is not intended to be limiting. We fully expect and hope that additional measures will be identified and implemented.

In this document:

"Plan" refers to the entire climate action effort.

"Goals" are the broad overall carbon emissions reductions - 80 percent by 2050 and 17 percent by 2020.

"Objectives" are specific measurable outcomes. Objectives have been identified by sector. If we are successful in achieving each of the objectives, we will meet our 2020 interim goal.

"Actions" are the specific steps that will be strategically implemented to meet the 2020 objectives.

This section is divided into two main categories:

Government actions - This section recommends actions to reduce emissions from City and County operations.

Community-wide actions - This section recommends education and outreach and the formation of partnerships. Several recommended voluntary measures are included. Our success requires participation at all levels.

The municipal and community categories are explored independently for several reasons:

- As documented in the inventory, a much finer resolution is possible for municipal operations (energy use by facility, etc.) than for the community as a whole.

- When attention is turned to the question of where emissions reductions are possible, there will be a different set of options for municipal facilities than for private sector emissions. For example, a county might opt to implement a procurement policy requiring that certain vehicles in the county fleet be replaced by hybrid vehicles, whereas in the private sector an education program about hybrids or an incentive program would be appropriate.
- Actions for government operations are under the operational or financial control of City/County government; while community-wide efforts are voluntary and incumbent upon all.

A. Government Leading by Example

Together, the City of Port Townsend and Jefferson County government account for less than one percent of the total emissions in our county. Despite their limited emissions, governments have an essential obligation to do their part and to lead by example. Just as the City and County must provide enabling policies, technical assistance, education, incentives and other support to help the community achieve the objectives of this Climate Action Plan, the City and County must also lead the way in their own operations.

If we can demonstrate success, others may follow suit. Most of the actions listed here can also be taken by other public entities in the county, like the Public Utility District, the Port of Port Townsend, Jefferson Health Care, the school districts, the fire districts, Jefferson Transit and Fort Worden State Park. Representatives from many of these entities participated in the development of this Climate Action Plan. Furthermore, it is hoped that these different public entities will collaborate in making their operations more energy efficient by sharing resources and funding opportunities. One example of this is the new Resource Conservation Manager partly funded by grants from PSE and WSU and jointly hired by the City, the County, Fort Worden State Park, Chimacum and Port Townsend School Districts to reduce energy consumption.

Most of the actions listed here are also applicable to private businesses. Hopefully citizens of our community will become increasingly motivated to take actions in their personal lives as well as in their places of work to reduce greenhouse gas emissions. Increasingly, tourists and other consumers have demonstrated support for those businesses that make efforts to demonstrate their concerns about climate change.

Table 6. 2020 Objectives for City and County Operations – An 18% decrease in CO2e emissions from 2005 levels.
(Greenhouse gas emissions in tons of CO2e)

	Stationary Sources	Trans-portation	Solid Waste	Water (& Sewer in UGAs)	Total	Percent of 1990
County	1,182	1,545	29	298	3,055	115%
City	661	437	--	657	1,755	115%

An 18% decrease from the high emissions mark in 2005 is still 15% higher than the estimated 1990 emissions levels. As shown in Figure 8 below, this rate of reduction keeps us on track for making the needed reductions between 2020 and 2050. Once again, the reduction targets have been arbitrarily assigned to each category identified in the Inventory, realizing that one size does not fit all and that some sources of emissions may be more cost-effective to address than others. The actions listed in this plan further demonstrate some of these differences.

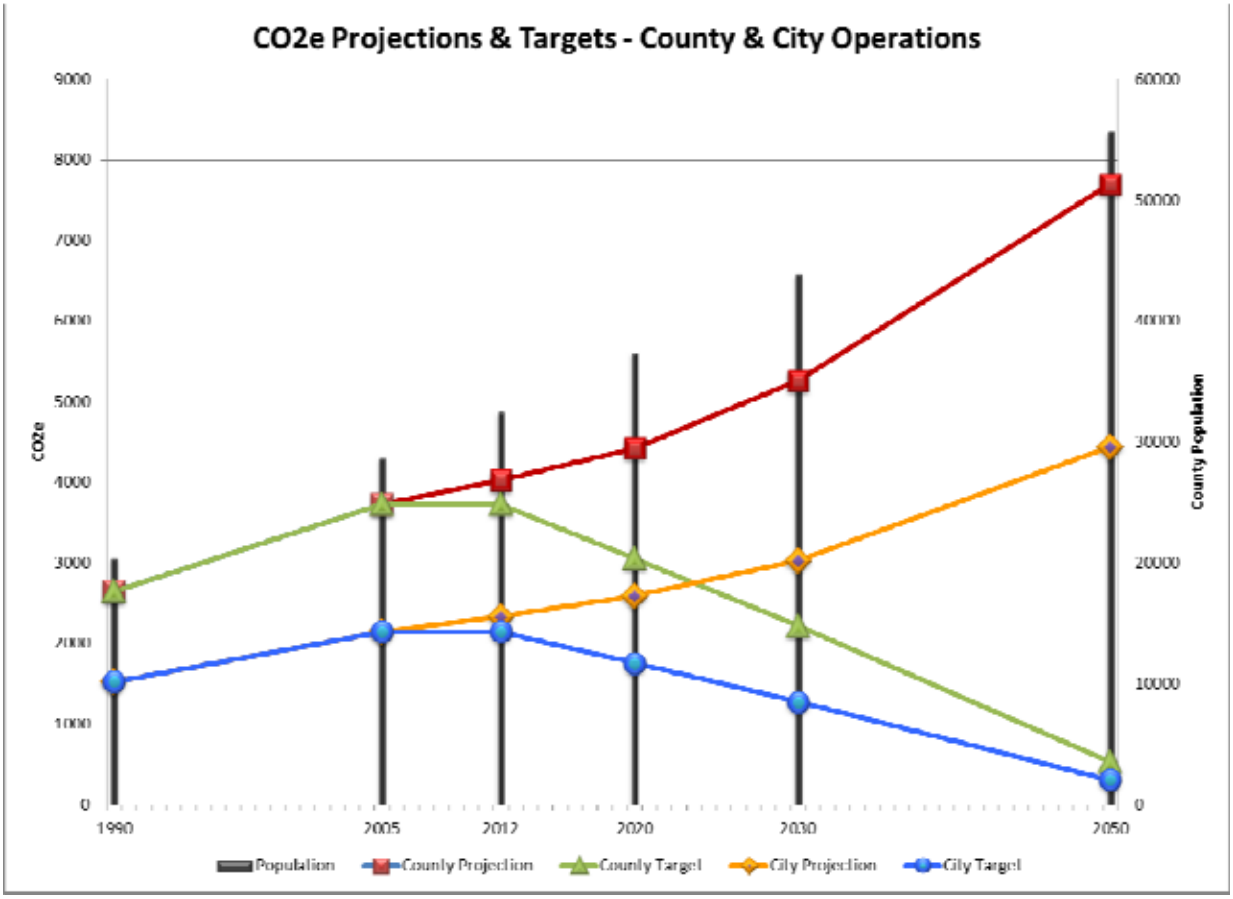


Figure 8 CO2e Projections and Targets for City & County Operations contrasted against projected population growth.

Actions listed in the following tables were derived from the CAC, citizen workshops and action plans from other communities, especially those in Portland and Multnomah County. They have been vetted by the Resource Conservation Manager (RCM) and City and County Department Heads. Existing measures currently being implemented by the City and County have been included. Actions are listed in the order by which the magnitude of emissions reductions appeared to be the highest (Additional detail is provided in the Worksheets, Appendix F). For the rough analyses, the CAC relied on municipal information, research, and the assistance of ICLEI CAPPA Software.

It is anticipated that the City and County will take a phased approach to implementation based upon specific types of funding available, feasibility, and rate of return (See Appendix E. Potential Funding Sources). City and County, with the assistance of the RCM, will need to develop an implementation strategy and, during budget proceedings,

each will need to consider earmarking funds for implementation of recommended measures.

The RCM will play a significant role in implementing the government actions outlined below. However, it is important to keep the scope of the RCM clear. Due to the source of grant funding, the RCM does not currently handle transportation related energy costs. The first two years of the RCM scope also exclude assessment of costs associated with the pool and golf course. Though it is hoped the RCM's position will be more flexible in future, in the interim others will need to take the lead in these areas.

Tables 7 and 8, Actions for Reducing Emissions from City and County Government Operations, refer to worksheets found in Appendix E which provide additional detail.

Again, we emphasize, the actions contained in this plan are not intended to be limiting. We fully expect and hope that additional measures will be identified and implemented and that some of these may allow a further reduction in Government Sector emissions as well as those in the community at large. Furthermore, the city and county should continue to monitor action at the federal and state level and encourage legislation that supports local efforts.

Table 7. Actions for Reducing City Government Emissions

City of Port Townsend Government Operations				
Worksheet	**Action**	**Lead**	**Cost Recovery (Years)**	**CO2e (metric tons)**
1.14	Purchase Green Energy from the grid	City Manager	n/a	320
1.1	Build all new City buildings and develop sites to at least a LEED Silver criterion, or some other third-party certification of energy, water and waste conservation strategies (e.g., Architecture 2030)	City Council and Public Works	0.46	118
1.4	Conduct energy audits for each city or county owned buildings and infrastructure to develop and implement a plan to reduce energy consumption.	RCM	4.81	112
1.9	Convert Streetlights to LED	Public Works	2.49	43
1.13	Set goals for government departments and encourage all local businesses to become certified by the Green Business program of Jefferson County Health	City Manager, RCM & County Env. Health		40
1.6	Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and in parks, where appropriate and productive	RCM & Public Works	18.26	24
1.7	Establish a reduced idling policy for all government vehicles (heavy trucks)	Dept. Heads, Fleet Mgr & CAC	0.04	61
E-Cars	More efficient fleet and use of vehicles	Fleet Manager		40
1.5	Replace low-efficiency and high-emission vehicles with fuel-efficient & low-emission vehicles, like plug-in hybrids, as soon as possible	Fleet Managers & Dept. Heads	0.00	22
1.10	Create incentives for employees to reduce emissions in their daily commute	Dept. Heads	1.08	14
1.2	Implement vehicle trip reduction policy incorporating teleconferencing, telecommuting and alternative work schedules, where practical. Establish video and/or web conferencing capabilities in all major City and County facilities	Dept. Heads	4.09	14
1.3	Use electric vehicles or bicycles whenever possible (e.g., for meter reading and building inspection)	CAC & Fleet Manager	5.09	11
E-Meters	Replace all the water meters with remote read meters. About 400 of the total 5,000 are already remote read.	Public Works	1.44	9

1.7	Establish a reduced idling policy for all government vehicles (light vehicles)	Fleet Managers & Dept. Heads	0.03	4
Total Greenhouse Gas Emission Reduction (* above 2020 goal)				**832**

Table 8. Actions for Reducing County Government Emissions

Jefferson County Government Operations				
Worksheet	**Action**	**Lead**	**Cost Recovery (Years)**	**CO2e (metric tons)**
1.14	Purchase Green Energy from the grid	BOCC	n/a	967
1.4	Conduct energy audits for each city or county owned buildings and infrastructure to develop and implement a plan to reduce energy consumption.	RCM	6.42	188
1.13	Set goals for government departments and encourage all local businesses to become certified by the Green Business program of Jefferson County Health	RCM & County Env. Health	0.09	124
1.6	Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and in parks, where appropriate and productive	RCM & Public Works	18.26	47
1.2	Implement vehicle trip reduction policy incorporating teleconferencing, telecommuting and alternative work schedules, where practical. Establish video and/or web conferencing capabilities in all major City and County facilities	BOCC, Electeds & Dept. Heads	1.03	54
1.7	Establish a reduced idling policy for all government vehicles	BOCC, Electeds & Fleet Mgr.	0.05	42
1.5	Replace low-efficiency and high-emission vehicles with fuel-efficient & low-emission vehicles, like plug-in hybrids, as soon as possible	Dept Heads, Electeds, Fleet Mgr.	0.00	28
1.10	Create incentives for employees to reduce emissions in their daily commute	BOCC, Electeds, Dept Heads	1.95	23
1.3	Use electric vehicles or bicycles whenever possible (e.g., for meter reading and building inspection)	BOCC, Electeds, Dept. Heads	5.09	7
E-4day	4-Day Work Week	Dept. Heads	0.00	6
E-Zenn	Electric Vehicles	Dept. Heads	0.00	4
	Total Greenhouse Gas Emission Reduction (9% above 2020 goal)			**1,490**

In developing this plan, we listed and analyzed the actions that we believed were within our current capabilities. They clearly do not yield reductions below 1990 by the year 2020, but they do put the government sector on track to meet the 2050 goal. Perhaps interim targets for all of Jefferson County should not be arbitrarily applied to every sector, every

building, every business or every individual. Instead, a reasoned approach needs to be applied that considers many factors.

A case in point is the Government Sector, which produces less than 1% of the emissions in our county. Some of these are generated by essential services like the fire departments, police and sheriff departments, and water and sewer utilities, where emissions reductions may be very costly or unwise. It may be more cost effective to reduce emissions in the community rather than in the government sector. Limited resources may yield greater reductions in emissions in helping homeowners make private homes more energy efficient than in further retrofitting historic government buildings. Some government investments could significantly reduce overall community emissions for example, investments in promoting a shift in transportation mode away from motor vehicle use and toward increased walking, bicycling and transit use. This could be realized by implementing a number of strategies including: a significant investment for expanded Jefferson Transit service; greater investment in walking and biking facilities; a reduction, maximum cap, or elimination of motor vehicle parking requirements; and instituting parking fees in the commercial centers. These steps would result in a modest increase in Jefferson Transit's emissions but could yield an immense reduction in overall community emissions.

In spite of our limited abilities to reduce emissions further today, we must be prepared to take advantage of every opportunity to reduce our community-wide emissions in the near future. The Government Sector must play a leadership role in continuing to make this issue a high priority.

B. Encouraging Community-wide Reductions

While the City or County will have a major role in carrying out many of the following objectives and actions, successful implementation will require many diverse partners, including neighboring jurisdictions, non-profit organizations, business leaders, and neighborhood associations.

Education and Outreach. Educating ourselves about the need for change, the choices available to us, and the values that motivate us is a fundamental part of this plan. In order to reach our greenhouse gas emission reduction targets, Port Townsend & Jefferson County need informed and supportive employees and citizens. Government must promote a broad awareness of the predicted effects of climate change and provide the tools and incentives to reduce GHG emissions in homes, businesses, and workplaces.

Outreach efforts will require the formation of partnerships – both municipal partnerships and public-private partnerships. The City and County have already begun to reach out to other counties and cities, here on the Olympic Peninsula including Clallam County, Port Angeles and Sequim. Examples of government partnerships include:

- Peninsula Development District (PDD), through the PDD, local jurisdictions collaborated on a proposal and submitted a grant application (the DOT TIGER II – HUD Community Challenge Planning Grant) to develop and implement a regional strategy to reduce vehicle miles traveled and plan for a more sustainable transportation system across the North Olympic Peninsula. Though the DOT TIGER II grant was not funded, the PDD will continue to seek funding.

- Jefferson County Public Health Green Business Program – Staff from the Green Business Program have been coordinating with CAC staff and anticipate enhanced outreach under the existing Green Business program. This program is focused on assisting businesses in developing cost-effective "green" solutions to prevent waste and pollution, and to conserve valuable resources. The program provides free technical assistance to business aimed at improving existing practices. Green Business is a voluntary program that gives recognition to businesses that are working to reduce waste, recycle and otherwise conduct business in an environmentally conscience manner. http://www.jeffersoncountypublichealth.org/index.php?green-business

- The Jefferson County Public Utility District (PUD) is in the process of purchasing the local electric infrastructure from Puget Sound Energy (PSE). As a public utility, the PUD uses community input in making local energy policy decisions, and takes a lead role in encouraging energy conservation and the reduction of greenhouse gases through incentive and outreach efforts.

- ICLEI for Sustainable Governments is another example of a collaborative effort. With over 600 member jurisdictions, ICLEI provides software support for analyzing the effect of reduction activities, and other resources for ideas. ICLEI tools have proven invaluable in the development of the inventory and targets as well as evaluating measures to reduce emissions.

Other potential partners include:

- Local 2020 - a citizen-based organization dedicated to exploring opportunities in our local community to promote economic self-reliance, environmental stewardship, and community well-being. Local 2020 holds regular meetings offering opportunity for community members to voice their thoughts and get involved, maintains an informative website, and distributes a weekly email newsletter. http://www.L2020.org

- Jefferson CAN - Jefferson Climate Action Now is a website dedicated to giving individuals the tools needed to save energy, save money, and reduce their carbon (CO2) footprint – at home, at work, and on the road – with tools specific for Jefferson County, Washington.– www.JeffersonCAN.org

- Jefferson County HomeBuilders - As per Homebuilders website, "Built Green™ of Jefferson County's program is tailored to fit our unique community. The guidelines demonstrate that green building is not an "all or nothing" method of construction. Experienced builders will not be daunted by any of this. The checklist provides a baseline for determining minimum thresholds for cost-effective, resource-efficient homebuilding. Conservation of materials, energy efficiency and good site planning are among the items considered."
  http://www.jeffcobuiltgreen.com/

  - Other local government entities such as the Port of Port Townsend, the local school districts, and the PUD.

Objectives & Recommended Actions

The Climate Action Committee has identified several potential actions to be implemented as part of the campaign. All are voluntary. **With the exception of the First Priority Item - Task the CAC with Designing and Implementing the Community Outreach Campaign - they are <u>not</u> listed in any particular order nor are they all inclusive.** There are numerous measures that may be implemented to reduce emissions and new opportunities will arise as technology evolves.

Five Action Areas have been identified and are further outlined in the following tables:

- **Education and Outreach**
- **Buildings and Energy**
- **Urban Form and Transportation**
- **Consumption and Solid Waste**
- **Food & Agriculture**

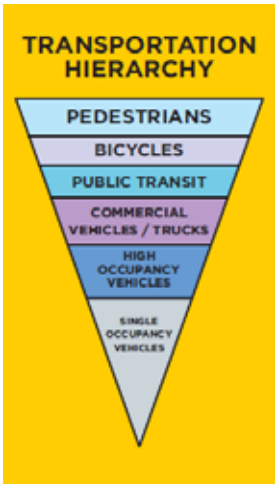
Table 9. Objectives & Recommended Actions for Community-wide Emissions Reductions

Education and Outreach	
Objective: Actively engage the public in reducing greenhouse gas emissions.	
1.	**Task the CAC with Designing and Implementing the Community Outreach Campaign.** The campaign should be designed to build on existing efforts, foster partnerships and develop new initiatives. The CAC committee membership may be modified to include representatives from the following: Jefferson County Builders Association – Built Green Jefferson County Public Health – Green Business Local 20/20 – JeffersonCAN WSU Jefferson County Extension RCM Research has identified a set of tools to promote behavior change: obtaining commitments, using prompts, utilizing social norms, designing effective communications, providing incentives, and

	removing external barriers. Depending on the audience and available funding, a variety of outreach materials may be produced (e.g., expanded websites, electronic newsletters, email messages, brochures, print ads, flyers, and postcards for direct mailings; newspaper articles; workshops, festivals or fairs, curriculum or lesson plans for grades K-12). **At a minimum, the CAC should:** • Apprise electeds and interested parties of federal and state plans and legislative actions which may impact the County's/City's ability to attain GHG reduction goals. • Partner with local media to publish articles and a regular newspaper column with information about sustainability and maintain a reference list and links on the website. (B-1.14) • Engage and inspire other public institutions and private businesses to incorporate climate protection action into their daily affairs. • Promote voluntary measures that reduce emissions – including measures recommended herein. • Partner with local educational institutions to develop and provide classes for clean energy, gardening, agriculture, sustainability skills. (B-1.15)

Buildings and Energy Encourage Community Action	
Objective. Community-wide emissions target of 445,737 tons of CO2eq by 2020. Currently, this sector accounts for 61% of overall emissions.	
1	Conservation – Encourage businesses and homeowners to reduce energy and water consumption (e.g., energy from outdoor lighting can be reduced by minimizing the number, using motion sensors, or installing high - efficiency bulbs, etc.) Note: Lower water usage cuts energy consumption for water treatment and pumping.
2	Promote the use of drought-tolerant native plants as well as tolerant non-natives.

3	Increase use of energy assessments in homes and businesses by encouraging owners to conduct assessments periodically.
4	Encourage all local businesses, to become certified by the Green Business program of Jefferson County Health. (NOTE: This program incorporates many of the measures listed throughout this Climate Action Plan.) (A-1.13)
5	Establish low - interest loan and energy assistance programs that reduce energy consumption (e.g., weatherization, appliances, lighting, heating, ventilating and air conditioning improvements, and renewable energy) for both existing and new housing.
6	Provide and/or promote incentives for carbon - reducing design & retrofit of buildings (e.g. passive solar, solar - thermal, solar - photovoltaic, heat pumps, wind, and other renewable - energy systems.) One example is the FIRST program.
Objective: 15% of total energy used within Jefferson County will be from renewable energy sources.	



This figure was taken from the City of Portland Multnomah County Climate Action Plan 2009 and serves as a reminder of the hierarchy of energy efficiency for transportation.

	Urban Form and Transportation Encourage Community Action
Objective: Community-wide emissions target of 445,737 tons of CO2eq by 2020. Currently, the transportation sector accounts for 39% of overall emissions.	
1	Develop a program to promote ride-sharing, walking and biking; such as Whatcom County's Smart Trips program and the grant application developed by the Peninsula Development District (PDD) for the 2010 DOT TIGER II – HUD Community Challenge Planning Grant)

2	Develop a commuter-friendly transit plan and increase service.
3	Reduce transportation energy needs by promoting the purchase of local goods and services.
4	Increase consumption of local food in facilities with central cafeterias; such as schools, hospital and housing.
5	Provide strategically placed recharging stations and priority parking for electric vehicles.
6	Increase non-motorized transportation infrastructure by fully implementing existing plans in PT. Build "complete streets" with facilities for pedestrians and bicycles.
7	Explore barge shipping as a more efficient means of transporting freight.
8	Support investments to provide high-performance broadband connectivity to every business and residence to enable widespread e-commerce, telecommuting and improved emergency response.

	Consumption and Solid Waste Encourage Community-wide
Objective: Community-wide emissions target of 445,737 tons of CO2eq by 2020. Currently, solid waste accounts for less than 1% of overall emissions. .	
1	Reduce trash through incentives and other measures. (E.g. Require waste recycling especially for construction sites; increase pick - up services for reuse, upcycling and recycling; and encourage reduced use of packaging, especially for building materials.)
2	Increase composting of all food and yard waste through a variety of measures (e.g. neighborhood composting centers, worm bins, etc.)
3	Encourage relocation or deconstruction and recycling of structures to be demolished.
4	Encourage adaptive reuse of buildings.

	Food & Agriculture Encourage Community-wide
Objective: Community-wide emissions target of 445,737 tons of CO2eq by 2020.	
1	Promote sustainable local organic farming -

VI. Transportation and Land Use Policies - For Further Consideration

City Council and the Board of County Commissioners tasked the CAC with developing recommended amendments to the county and city codes and comprehensive plans to align with the Climate Action Plan strategies

City and County Codes define distinct public participation processes for adoption of land use comprehensive plan amendments and development regulations, through which the suggested code and policy amendments specified below, have not yet been vetted. The City Council and Board of County Commissioners hereby direct their respective Planning & Development Services Departments to take the following steps:

- *Review the recommended strategies for consistency with adopted policies.*
- *If consistent and non-regulatory in nature, implement the strategy as resources allow.*
- *For all other strategies, further investigate the potential emissions reductions and feasibility of strategies and advance those with the greatest potential for success during the next cycle of Comprehensive Plan update/amendments to the development regulations.*

Land Use Policy recommendations are divided into three sections:

Rural Resource Management, to enhance the carbon sequestering potential of the County's forests, farms and open spaces

Urban Form and Transportation, to locate and move both people and goods in a carbon-efficient manner and provide regional tools for compact, livable communities of mixed uses.

A: Rural Resource Management
Maximizing Carbon Sequestration in Natural Resource Lands and Open Space

Much of Jefferson County's land is natural resource land, including forestry, agriculture, open space, conservation land, and critical areas such as wetlands and wildlife habitat. Our large land base, particularly

that in forestry, provides a large amount of sequestration for carbon emissions generated elsewhere. Jefferson County should maximize this "carbon sink" function of our natural resource lands by supporting and encouraging management practices that retain or improve storage.

Jefferson County should work with the forestry and agricultural communities to explore ways to turn net-carbon-emitting natural resource lands into carbon sinks, without jeopardizing the profitable industry. Options to be explored include, but are not limited to:

1. Explore economic incentives (e.g., Tax benefits or other subsidies) that may encourage landowners to increase carbon storage on their land as well as decrease the conversion out of farmland and forest use.

2. Fund demonstration projects and highlight best practices for forestry and agriculture.

3. Seek ways to cluster legally allowed development rights on smaller portions of natural resource lands and permanently conserve the carbon sequestration qualities of the remaining land (this may be accomplished on a working forest/farm if properly managed).

4. Identify key areas with high carbon sequestration rates and consider protection measures such as transfer of development rights, purchase of development rights/conservation easements.

5. Assess the potential for increasing carbon sequestration on County-owned forest lands.

6. Increase tree planting requirements or incentives for all public and private projects, including transportation projects that incorporate the use of trees. Tree lined corridors provide a carbon sponge and increase the attractiveness of the area.

7. Increase investment in local wood manufacturing businesses that are able to supply local products for wood markets.

8. Increase the amount of local wood products grown and manufactured locally and purchased by government and private sectors. Thus encouraging the economic viability of forest land in our area.

B: Urban Form and Transportation

There is no practical way to divorce land use and transportation. As our community develops, we must be mindful of where we build and how we build. Emissions from buildings account for more than half of the total community-wide GHG emissions in Jefferson County (Stationary emissions including buildings and machinery account for 61%). Traveling between destinations accounts for over half of the carbon emissions released in Washington State and 39% of Jefferson County community-wide emissions.

In general, concentrating development within established community and economic centers will produce fewer harmful effects than development outside these centers. For this reason, the County, in coordination with the City, should emphasize the need for future development to occur within urban growth areas (UGAs) and other areas suitable for more intensive development as identified in each jurisdiction's Comprehensive Plan

Jefferson County and the City of Port Townsend should collaborate to manage growth in accordance with the Growth Management Act (GMA) in a manner that:

- Adheres to principles of sustainability and reduction of carbon emissions
- Promotes more livable, pedestrian/bike-friendly, transit-oriented communities
- Preserves carbon sink potential of surrounding rural and natural resources areas.

Built Green and LEED are two national standards for energy efficiency and sustainability in new construction and remodeling. In practice, Built Green is used more in residential projects while LEED is used more in commercial projects. Both organizations offer comprehensive means to rate newly proposed subdivisions or other large-scale residential development: the Built Green Communities Checklist and LEED for Neighborhood Development.

The City and County should consider the following policy options:

1. Direct staff to research the benefits of implementing a city and county energy code for commercial and residential construction that exceeds current WA state code (e.g. greater insulation, passive solar, Passive House and small footprints) and for new buildings, site development and substantial remodels consider establishing a minimum compliance target (e.g., meet at least a LEED Silver or similar level for Built Green or another green building standard).

2. Within designated UGAs, encourage increased urban density through code revisions for items such as setbacks, height restrictions, cluster and mixed - use development.

3. Consider further reductions in off-street parking requirements in order to increase density and further promote transportation choices.

4. Increase non-motorized transportation infrastructure by completing NMTP plans for areas in the county.

VII. Monitoring & Adaptive Management

As with the Objectives and Actions in Section V, monitoring for the municipal and community categories are explored independently, primarily because a much finer resolution is possible for municipal operations (energy use by facility, etc.) than for the community as a whole.

Applying an adaptive management approach, we will monitor our progress, track changing conditions, and explore the feasibility of additional measures as we become aware of new information and technological advancements. In general, when vetting new measures the following basic criteria should be considered:

> *Benefits: the primary goal is reduction of GHG emissions, however several measures will have side benefits such as cost savings and indirect benefits (e.g., jobs, health benefits)*
>
> *Feasibility – including cost, technical, economic, and political/social aspects of the measure*

We must be able to implement new measures in a timely fashion. Though regulatory measures will require time to vet through the public process; measures to reduce government emissions may be implemented at the direction of the city manager/county administrator (BoCC/Council approval may be required if capital expenditures are involved) and voluntary measures may be encouraged at anytime.

Government Emissions Tracking

For each action recommended for implementation, the City and County will work to refine, monitor, and report on measurable indicators of success. A number of tools and practices exist that can enable the City and County to track and report progress toward achieving the goals outlined in this plan, including monitoring the funds allocated to climate-protection goals. Tools can be as simple as spreadsheet tracking sheets developed to monitor estimated annual energy and water savings; waste diverted, and associated GHGs reduced.

Most of the actions recommended in Section A are under the purview of and will be monitored by the Resource Conservation Manager. Those measures falling outside of the RCM's scope of work (e.g., measures to reduce fuel consumption by vehicles) will need to be monitored by the fleet manager or other designated staff.

Community-wide Emissions Tracking

The Climate Action Committee should be tasked with conducting a GHG emissions inventory approximately every three to five years. Measuring GHG emissions on a regular basis is important to verifying that the climate initiatives are effectively reducing emissions and that the appropriate scale of GHG reductions are being pursued.

The CAC should use all available and emerging tools (e.g., ICLEI's CAPPA software) to aide in monitoring progress. Other indicators of success may include miles of bike lanes, transit ridership, increased fuel efficiency, and number of households actively participating in composting and recycling programs.

GLOSSARY OF TERMS

Adaptation
Climate **adaptation** refers to the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damage, to take advantage of opportunities, or to cope with the consequences. For example, relocating development from areas prone to flooding, adjusting to increased summer drought conditions).
Compare to *mitigation*.

Backcasting
The process of estimating a previous GHG emission if a base year's emissions are known. This estimate is based primarily on the ratio of the population of the base year to the population at some previous time. It is assumed that this population ratio is proportional to the ratio of the base year emissions to that of the previous year being backcast. (For our reports, the base year for which we had good data was 2005. In backcasting to 1990 we used not only changes in population but included as well an estimate of how the Port Townsend Paper Corporation emissions had been reduced since then.)

Carbon footprint
Shorthand for an estimate of the total GHG emissions caused by, or associated with, a person, product, activity, or organization. Usually expressed in units of CO2e. An average. In 2007, an average American's carbon footprint was about 19 tons of CO2e per year. In the United Kingdom it was 9, while in China it was 5.
(www.en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions_per_capita)

CAPPA Software
'Climate and Air Pollution Planning Assistant' is designed by ICLEI to help U.S. local governments explore, identify and analyze potential climate and air pollution emissions reduction opportunities. CAPPA allows users to compare the relative benefits of a wide variety of emissions reduction measures, and helps identify those most likely to be successful for a community based on its priorities and constraints. CAPPA includes a customizable and expandable library of more than 110 distinct emissions reduction strategies for local governments. Its calculation functions are based on real-world data from other U.S. communities and a variety of expert sources.

CO2
Carbon dioxide, a colorless, odorless gas consisting of one atom of carbon and two atoms of oxygen. CO2 is created during combustion of

carbon-based fuels and absorbed by most plants in photosynthesis. CO2 currently exists at a global average concentration of 385 parts per million by volume in Earth's atmosphere. (As reported by NOAA, the National Oceanic and Atmospheric Association, in January 2011. www.co2now.org)

CO2e
Carbon dioxide equivalent. A measure used to compare the effect of a greenhouse gas in terms of an equivalent amount of carbon dioxide.

Emission intensity reduction
Reduction of carbon emissions per Gross Domestic Product (GDP).

Fossil fuels
Fuels derived from geologically ancient vegetation that has been transformed into coal, petroleum and natural gas over long periods of time.

GHG
Greenhouse gas. Chiefly carbon dioxide (CO_2), Water, Methane (CH_4), Nitrous oxide (N_2O) Chlorofluorocarbons, all of which in the atmosphere absorb heat radiation coming from the earth and reradiate it back to the earth thus causing a net increase in the heat balance of the earth. This is actually different than how greenhouses work by isolating warm air inside the structure so that heat is not lost by convection.
See *CO2e*.

Gigaton
A unit of measure equal to one billion metric tons. A metric ton is approximately 2,205 pounds.

ICLEI
Also known as **"ICLEI - Local Governments for Sustainability"**, ICLEI is an association of over 1200 local government Members from 70 different countries representing more than 569,885,000 people who are committed to sustainable development. ICLEI provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development at the local level. Our basic premise is that locally designed initiatives can provide an effective and cost-efficient way to achieve local, national, and global sustainability objectives. Founded in 1990 and initially called 'International Council for Local Environmental Initiatives' (ICLEI), its mission expanded and its name was changed in 2003. (www.iclei.org)

IPCC
Intergovernmental Panel on Climate Change. The IPCC is a scientific intergovernmental body set up by the World Meteorological Organization and by the United Nations Environment Programmed. Visit the IPCC website at www.ipcc.ch.

kW-h
Kilowatt-hour, when you use 1000 watts for 1 hour, that's a kilowatt-hour. For example, it is the amount of energy needed to light a 100 Watt light bulb for 10 hours.

LEED
Leadership in Energy and Environmental Design (LEED) is an ecology-oriented building certification program run under the auspices of the U.S. Green Building Council (USGBC). LEED concentrates its efforts on improving performance across five key areas of environmental and human health: energy efficiency, indoor environmental quality, materials selection, sustainable site development and water savings.

LEED has special rating systems that apply to all kinds of structures, including schools, retail and healthcare facilities. Rating systems are available for new construction and major renovations as well as existing buildings. There are 4 levels of energy efficiency of a building. They are in increasing order: Certified, Silver, Gold and Platinum.

Mitigation

Climate mitigation is any action taken to permanently eliminate or reduce the long-term risk and hazards of climate change to human life, property. Examples include making our vehicles and buildings more energy efficient, expanding carbon “sinks”, trading single-occupancy cars for mass transit, switching to renewable energy sources, etc.

Compare to *adaptation*.

MMBtu
1million Btu. The British thermal unit (BTU or Btu) is a standard unit of measurement used to denote both the amount of heat energy in fuels and the ability of appliances and air conditioning systems to produce heating or cooling... It is approximately the amount of energy needed to heat 1 pint (which weighs 16 ounces) of water one degree Fahrenheit. One Btu is approximately one fourth of a food Calorie or 0.29 kW-h.

Resource Conservation Manager (RCM)
Individual dedicated to supporting an agency's resource conservation program, focusing on energy, water and solid waste. Five jurisdictions (Jefferson County, the City of Port Townsend, Port Townsend and Chimacum School Districts, Fort Worden State Park) hired a shared RCM in November 2010 on a three year contract to evaluate their resource usage and create facility action plans.

UGA
Urban Growth Area (UGAs) - areas designated by a county, with input from towns and cities, where urban development is to occur. The UGA is one of the major tools provided by the Growth Management Act for deciding where urban development should be encouraged and where the limits to that development should end. UGAs are areas where growth and higher densities are expected and supported by urban services. By directing growth into urban areas, natural resource lands – such as farms and forests – can be conserved and the rural character of rural lands can be maintained.

Appendix A

Joint Resolution County 44-07 City 07-022 to commit to addressing energy use and climate change

STATE OF WASHINGTON
County of Jefferson

JOINT RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS AND THE PORT TOWNSEND CITY COUNCIL TO COMMIT TO ADDRESSING ENERGY USE AND CLIMATE CHANGE/GLOBAL WARMING	}	44-07 **COUNTY RESOLUTION NO.** 07-022 **CITY RESOLUTION NO.**

The Board of County Commissioners of Jefferson County, Washington, and the City Council of Port Townsend, Washington, do jointly resolve as follows:

WHEREAS, numerous scientific organizations have determined that warming of the climate system is unequivocal as evidenced by increases in global average air and ocean temperatures, receding glaciers, decreasing snow pack, and coral bleaching, and by rising global mean sea levels, and further is potentially damaging to our environment and our economy; and

WHEREAS, energy consumption, specifically the burning of fossil fuels, e.g., coal, oil and gas, accounts for more than 80% of U.S. greenhouse gas emissions and that the U.S. produces nearly one quarter of all global emissions; and

WHEREAS the governments of Jefferson County and the City of Port Townsend can greatly influence the community's energy usage by exercising power over land use, transportation, building construction, waste management, and energy supply and management; and

WHEREAS governments can provide leadership by motivating and supporting citizens to improve energy use within businesses, port facilities, schools, churches, and homes; and

WHEREAS, Jefferson County and the City of Port Townsend recognize that the probable adverse effects on our citizens and infrastructure, and on our mountains, glaciers, forests, rivers, oceans, and other waterways from severe weather, rising temperatures, and rising sea levels due to climate change pose a risk to future economic viability; and

WHEREAS, actions taken to reduce greenhouse gas emissions and increase energy efficiency provide multiple local benefits by decreasing air pollution, creating jobs, reducing energy expenditures, saving money and reducing tax burdens for governments, businesses and citizens;

NOW THEREFORE, BE IT RESOLVED, that Jefferson County and the City of Port Townsend commit to collaborate in a program to reduce greenhouse gas emissions, specifically:

- Collaborating with the Climate Protection Campaign volunteers in conducting a comprehensive baseline inventory of local energy uses that contribute to greenhouse gas emissions, especially CO2, and making estimates of current emissions and forecasts of future emissions if current practices do not change,
- Appointing a joint City/County citizen's committee tasked with developing a Local Climate Action Plan. Specifically, the committee should provide recommendations for achieving a community-

wide standard of cutting greenhouse gas emissions to levels 80 percent lower than 1990 levels by 2050, with preliminary reduction targets to be set for earlier years,

- Implementing policies and measures to meet the emission reduction targets, and
- Monitoring and verifying results

This resolution shall become effective upon adoption by the Board of County Commissioners and the City of Port Townsend.

APPROVED AND SIGNED THIS 29th DAY OF MAY, 2007.

SEAL

JEFFERSON COUNTY
BOARD OF COMMISSIONERS

Phil Johnson, Chairman

David Sullivan, Member

John Austin, Member

ATTEST

Julie Matthes, Deputy Clerk of the Board

ND SIGNED THIS 9th DAY OF ~~MAY~~ July, 2007.

SEAL

CITY OF PORT TOWNSEND

Mark Welch, Mayor, Deputy

ATTEST

Pamela Kolacy, City Clerk

JEFFERSON COUNTY
BOARD OF COUNTY COMMISSIONERS

CONSENT AGENDA REQUEST

TO: **Board of County Commissioners**
John Fischbach, County Administrator

FROM: **Al Scalf, Director, Department of Community Development (DCD)**
Karen Barrows, Assistant Planner, Long-Range Planning (LRP) KB

DATE: **May 29, 2007**

SUBJECT: **RE: Request for Consent Agenda item for the Joint Resolution to Commit to Addressing Climate Change/Global Warming**

STATEMENT OF ISSUE:
The Department of Community Development Long-Range Planning Division is requesting that the Board of County Commissioners (BoCC) adopt the Joint Resolution committing Jefferson County and the City of Port Townsend to collaborate in a program to measure energy use and to reduce local greenhouse gas emissions. The proposed Joint Resolution is attached for your review.

ANALYSIS/STRATEGIC GOALS :
In April 2007 a citizen's group called the Climate Protection Campaign drafted a climate change resolution modeled on a resolution which recently passed in Clallam County. The BoCC has recently been briefed by members of the citizen's group, which includes Kees Kolff and Bill Wise, and a joint City Council/BoCC meeting on the issue was held on May 17, 2007. Prior to the joint meeting, the Climate Protection Campaign hosted a rallying event called "Step-It-Up" in Port Townsend on Saturday, April 14, 2007, which was part of a nationwide effort to address the issue; approximately two hundred (200) people attended the function, and pledged support via petitions for the ideas contained in the resolution.

The proposed draft resolution is consistent with The Strategic Goals of the BoCC set forth in 2001, especially numbers 1,4, 5, and 7. Briefly, these Goals provide for the need to create a sustainable and balanced economic base by seeking to lower energy and infrastructure costs; new opportunities for local businesses as energy needs and delivery systems change; a "sustainable utilization of natural resources; a healthy and safe citizenry; affordable government. The resolution is also consistent with the Leadership's Guiding Principles section of the Strategic Goals document.

FISCAL IMPACT:
If the City and County choose to do so, it will cost $600.00 to join the Task Force of the International Council for Local Environmental Initiatives (ICLEI), which includes computer software and consultation fees. Implementation of the resolution will be long-range and multifaceted, and thus calculating total costs is impossible at this stage of the process. Since lowering carbon-based energy usage/ emissions is a primary goal of the resolution, an eventual net cost savings is the predicted result.

RECOMMENDATION:
DCD staff recommends BoCC approval.

REVIEWED BY:

JF

John Fischbach, County Administrator

5-24-07

Date

Appendix B

Joint Resolution of the Board of County Commissioners County Resolution No 02-08 and the Port Townsend City Council City Resolution No 08-001 Providing Composition Terms of Office and Procedural Rules for the Climate Action Committee

STATE OF WASHINGTON
County of Jefferson
City of Port Townsend

Joint Resolution of the	}	
Board of County Commissioners	}	**County Resolution No. 02-08**
And the Port Townsend City Council	}	**City Resolution No. 08-001**
Providing Composition, Terms of Office	}	
And Procedural Rules for the	}	
Climate Action Committee	}	

The Board of County Commissioners (BoCC) of Jefferson County, Washington and the City Council of Port Townsend, Washington do hereby jointly resolve as follows:

WHEREAS, Jefferson County and the City of Port Townsend have adopted a joint resolution (County 44-07; City 07-022) to commit to addressing energy use and climate change/global warming; and

WHEREAS, the above mentioned resolution establishes a joint County/City committee, herein called the Climate Action Committee (CAC), tasked with developing a local climate action plan; and

WHEREAS, the CAC is charged with providing recommendations for achieving a community-wide standard of cutting greenhouse gas emissions to levels 80% lower than 1990 levels by 2050, with preliminary reduction targets to be set for earlier years; and

WHEREAS, Jefferson County and the City of Port Townsend have committed to implementing policies and measures to meet the emission reduction targets and to monitoring and verifying results; and

WHEREAS, the CAC will bring together representatives from the city and county governments as well as from various sectors of our community that may provide input, as well as furthering community acceptance of the action plan; and

WHEREAS, Jefferson County and the City of Port Townsend value the natural resources of the region and recognize the importance of protecting and conserving said resources; and

WHEREAS, Jefferson County and the City of Port Townsend recognize that the probable adverse effects on our citizens and infrastructure, and on our mountains, glaciers, forests, rivers, oceans, and other waterways from severe weather, rising temperatures, and rising sea levels due to climate change pose a risk to future economic viability,

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Port Townsend and the Board of County Commissioners as follows:

Section 1. Establishment:
Formation of the Climate Action Committee is hereby specifically approved by the Port Townsend City Council and by the Board of County Commissioners of Jefferson County. The Committee shall follow applicable County and City rules pertaining to citizen advisory committees. The BoCC and City Council shall resolve any conflict that may arise between applicable rules.

Section 2. Purpose and Scope of Work

2.1 The Purpose of the Climate Action Committee (CAC) is to serve as an advisory group to the City of Port Townsend and Jefferson County on climate protection policies, programs and priorities. CAC will have no formal decision-making responsibilities.

2.2 The principal role of the CAC is to create a Climate Action Plan with specific focus on reducing energy use and greenhouse gas emissions.

2.3 The draft Climate Action Plan, to be approved by the City Council and the Board of County Commissioners, shall include, at a minimum:

2.3.1 Preliminary reduction targets for greenhouse gas emissions for years prior to
2.3.2 A set of strategies and relative priorities
2.3.3 Climate Action Plan implementation steps
2.3.4 A monitoring plan including quantifiable benchmarks
2.3.5. Recommended amendments to the county and city codes and comprehensive plans in accordance with the Climate Action Plan strategies.

2.4 Within six months of its formation, the CAC shall present, for approval by the Board of County Commissioners and City Council, a work plan outlining the proposed process, timelines, and resources required to prepare the Climate Action Plan. The timeline shall include each of the above listed elements of the plan (with preliminary recommendations to be submitted within one year), opportunities for public comment, periodic reports to the BoCC and City Council. The CAC shall work with County and City staff to develop a work plan that is cognizant of available financial and human resources.

2.5 The CAC will meet as needed to complete the scope of work outlined herein.

2.6 Participation as a CAC member will not and does not preclude one's later participation in any formal review or comment process before the City Council and/or Board of County Commissioners.

Section 3. Committee Members, Appointment and Confirmation Process, Terms & Vacancies

3.1 The Board of County Commissioners and the City Council shall each appoint an elected official as a representative to the CAC.

3.2 The Chair of the BoCC and the Mayor, in consultation with the County Administrator and City Manager, shall review letters of interest and recommend individuals to serve on the CAC, for appointment by the Council and Board of County Commissioners. The committee shall consist of no more than 15 members, representing a broad range of interests, which may include but is not limited to:

Board of County Commissioners
City Council
Education/Schools
Builders
Industry (e.g., Port/Marine Trades)
Port Townsend Paper Corporation
Business (e.g., Chamber, EDC)
Non-motorized transportation and/or Transit
Faith Based Organizations
Citizens at Large

3.3. Each person shall be deemed appointed and shall commence service after confirmation by the Board of County Commissioners and City Council or on the effective date of the previous member's resignation or on the expiration of the existing term for the position, as applicable.

Section 4. Officers – Election and Duties

4.1 The officers of the CAC shall consist of a Chair and a Vice Chairperson elected from the appointed members of the CAC and such other officers as the CAC may, by majority vote, approve and appoint.

4.2 The election of officers shall take place once each year on the occasion of the first meeting of each calendar year. The term of each officer shall run from that meeting until the first meeting of the subsequent calendar year.

4.3 In the event of a vacancy of the Chair, the Vice Chairperson would replace the Chair, and the Vice Chairperson replaced by vote of the members of the CAC.

4.4 The Chair will sign documents of the CAC and represent the committee before the Board of County Commissioners and City Council. The Chair is entitled to a single vote and shall retain the right and responsibility to participate in all deliberations and to vote on all matters. The Vice-Chair will act for the Chair in the Chair's absence.

Section 5. Meetings

5.1 The CAC shall meet as needed to complete the tasks outlined in Section 2 of this resolution and as may be further detailed in the approved work plan (Section 2.4). All meetings of the CAC shall be subject to all requirements of the Washington Open Public Meetings Act, and shall be open to the public, and shall be held at a public place.

5.2 All meeting dates and terms shall be posted consistent with adopted County and City policies. No meeting shall be scheduled without a t least 48 hours notice to the County and City Clerk's offices.

5.3 Except as modified by these rules of procedure, the CAC rules of procedure shall be guided by Robert's Rules of Order Newly Revised (10th Edition, Perseus Publishing), as the same may be amended or updated.

Section 6. Attendance and Alternates

6.1 To achieve its greatest effect the CAC will meet with the regular attendance of its members at most meetings; the CAC benefits greatly from full participation of each member.

6.2 In light of this, CAC members are expected and required to notify the chair of anticipated absence from any meeting of the CAC as far in advance of the meeting as possible. In the event that such notifications indicate that a quorum will not be present, the chair will ordinarily cancel or reschedule the meeting.

6.3 If a member is absent for three (3) consecutive regular meetings without excuse, or absent for thirty-five percent (35%) of all meetings (including committee meetings) in any six (6)-month period, the member's record of attendance may be forwarded to the Mayor and the Chair of the BoCC for consideration of removal in accordance with RCW 35.63.030.

6.4 If the CAC determines a need, it will recognize an appropriate designated alternate in the event of a member's absence. An "appropriately designated alternate" will have been recommended by the CAC and approved by the Board of County Commissioners and City Council. In the event of that member's absence, the alternate can exercise the voting privilege of the seat that he/she represents.

Section 7. Quorum - Voting

7.1 The decision making approach of the CAC will be by consensus. If consensus cannot be reached, the CAC will require a 2/3-majority vote. Any dissenting opinions will be recorded and included in the meeting summary.

7.2 A simple majority of the total of the members currently appointed to CAC shall constitute a quorum for the conduct of CAC business. No meeting shall occur unless a majority plus one of the appointed CAC members are present. Voting is by voice vote, except where these rules or the CAC itself may require a roll call vote.

Section 8. Conflicts of Interest

8.1 Conflicts of interest will rarely arise as a matter of concern for CAC members; however, in the discussion or recommendation of funding proposals for CAC projects it is possible that a conflict or the appearance of a conflict may arise. When a conflict or appearance of conflict may arise, applicable state, county, and city policies regarding Appearance of Fairness shall apply.

Section 9. Order of Business Meeting Procedure

9.1 Call to order, roll call and determination of quorum.

9.2 Agenda items

- 9.2.1 Minutes of previous meeting
- 9.2.2 Old business
- 9.2.3 New business
- 9.2.4 Discussions of next meeting date and agenda
- 9.2.5 General Announcements
- 9.2.6 Community Member Comments
- 9.2.7 Adjournment

9.3 The chair may alter the regular order of business in preparing the agenda when special circumstances and the efficient use of time dictate.

9.4 All meetings of the CAC shall be conducted pursuant to the Open Public Meetings Act, as codified in RCW 42.30, as the same may be amended or updated.

Section 10. Minutes and Records

10.1 Findings and recommendations, etc., of the CAC are prepared at the direction of the chair. Copies will be provided to all CAC members in a timely manner for review and approval at the next regular CAC meeting.

10.2 The CAC shall provide for the taking of minutes and maintaining the records of all meetings. Committee minutes shall be filed with the County and City Clerk's offices within 10 days of approval.

Section 11. Term of Committee - Sunset Provision
CAC shall formally end within three years from the date of adoption of this Resolution unless otherwise extended by ordinance or resolution or by written permission from the County Director of the Department of Community Development.

Section 12. Communications to the Board of County Commissioners and City Council
The Committee shall report to the Board of County Commissioners and Port Townsend City Council at least semi-annually.

Section 13: Compensation and Reimbursement of Expenses
Members of CAC shall serve without compensation.

Section 14 Amending Rules

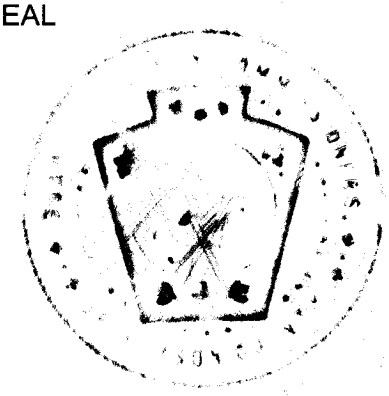
14.1 CAC may recommend amendments to these rules at any meeting by a vote of the majority of the entire membership, provided five (5) days notice has been given to each CAC member.

14.2 CAC is a joint county/city committee and thus the two government entities agree to maintain consistency by processing any amendments hereto as "Joint Resolutions" requiring approval by both entities.

This resolution shall become effective upon adoption by the Board of County Commissioners and the City of Port Townsend.

APPROVED AND SIGNED THIS 7th day of January, 2008.

SEAL



JEFFERSON COUNTY
BOARD OF COMMISSIONERS

Phil Johnson, Chairman

David Sullivan, Member

John Austin, Member

Attest:

Julie Matthes, CMC
Deputy Clerk of the Board

Approved as to Form:
David Alvarez 1/30/08
David Alvarez
Deputy Civil Prosecuting Attorney

APPROVED AND SIGNED THIS 7th day of January, 2008.

CITY OF PORT TOWNSEND

Michelle Sandoval, Mayor

Attest:

Pamela Kolacy, MMC
City Clerk

Approved as to form

John P. Watts
City Attorney

Appendix C.
CO2e Forecasts and Targets

Greenhouse Gas Emissions in tons of CO2e							
		Backcast	Base Year	Forecasts, assuming current practices			
Category	**Sectors/Subsector**	**1990**	**2005**	**2012**	**2020**	**2030**	**2050**
Community	Stationary Energy						
	Residential	86827	121605	131487	143936	168974	261127
	Commercial	32902	49017	53868	60012	74893	114641
	Industrial	225665	154511	154511	154511	154511	154511
	Stationary Subtotal	**345394**	**325133**	**339866**	**358459**	**398378**	**530279**
	Rate of Change from previous milestone			1.05	1.05	1.11	1.33
	Transportation	175697	209079	228455	256018	319449	488989
	Rate of Change from previous milestone			1.09	1.12	1.25	1.53
	Solid Waste	1777	2502	2831	3261	3823	5852
	Rate of Change from previous milestone			1.13	1.15	1.17	1.53
	Community Total	**522868**	**536714**	**571154**	**617738**	**721650**	**1025120**
	Rate of Change from previous milestone			1.06	1.08	1.17	1.42
Jefferson County Gov't	Stationary Energy	1025	1443	1508	1591	1768	2353
	Transportation	1340	1886	2061	2309	2882	4411
	Solid Waste	25	35	40	46	53	82
	Water	259	364	412	474	556	851
	Jefferson County Total	**2648**	**3728**	**4021**	**4420**	**5259**	**7698**
City of Port Townsend	Stationary Energy	573	807	844	890	989	1316
	Transportation	379	533	582	653	814	1247
	Water/Sewage	570	802	907	1045	1225	1876
	City of Port Townsend Total	**1522**	**2142**	**2333**	**2588**	**3029**	**4439**
Population Data/Estimates		20406	28724	32500	37427	43858	55656

Notes on calculation methods Draft 4-29-11

For both backcast and forecasts, the method was to apply the annual percentage change from the base year of 2005 for any given year in the Jefferson county population to the various inputs in the Clean Air and Climate Protection (CACP) software.

For each period, this annual percentage change was applied to the following inputs:

Residential: Electrical usage and number of households
Commercial: Electrical usage, propane usage, floor area, number of employees and number of establishments
Transportation: Gasoline and diesel usage
Waste: Total tons CO_{2e}

The annual percentage population changes used were:
1990 – 2005 2.31%
2005 – 2012 1.78%
2005 – 2020 1.78%
2005 – 2030 1.71%
2005 - 2050 1.90%

For the industrial backcast an estimate of the reduction of Port Townsend Paper from 1990 to 2005 of about 32% was used based on the information supplied by Kristin Marshall and Bruce McComas. Thereafter, the future emissions were assumed to be constant based on the assumption that the production of green house gas was not population dependent.

Stanley Willard

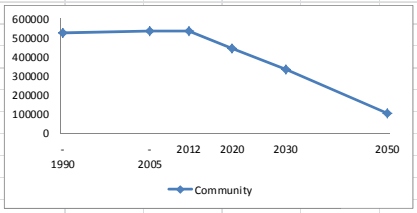
These calculations were made at the community level. The City and County Government Operations are a included in the Community total. The rate of change for a each subsector was applied to the known baseline inventory values for the City and County to determine the forecast their respective subsectors. Example: Transportation CO2e increased 9% in the community between 2005 and 2012. City Transportation in 2012 is calculated to be 582, reflecting a 9% increase over 2005.

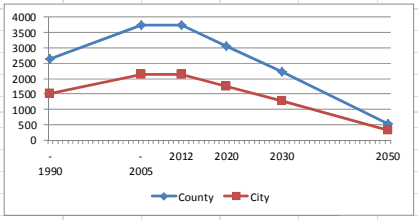
Deborah Stinson

Targets for Future GHG Emissions

Greenhouse Gas Emissions in tons of CO2e

Category	Sectors/Subsector	-1990	-2005	2012	2020	2030	2050
Community	Stationary Energy						
	Residential	86827	121605	121605	99660	72228	17365
	Commercial	32902	49017	49017	40083	28915	6580
	Industrial	225665	154511	154511	131484	102700	45133
	Stationary Subtotal	**345394**	**325133**	**325133**	**271227**	**203844**	**69079**
	Transportation	175697	209079	209079	172460	126687	35139
	Solid Waste	1777	2502	2502	2050	1485	355
	Grand Total	**522868**	**536714**	**536714**	**445737**	**332016**	**104574**
Percent from 1990			0.03	0.03	-0.15	-0.37	-0.80
Jefferson County Gov't	Stationary Energy	1025	1443	1443	1182	857	205
	Transportation	1340	1886	1886	1545	1120	268
	Solid Waste	25	35	35	29	21	5
	Water	259	364	364	298	216	52
	County Total	**2648**	**3728**	**3728**	**3055**	**2213**	**530**
Percent from 1990			0.41	0.41	0.15	-0.16	-0.80
Percent from prev benchmark			0.41	0.00	-0.18	-0.28	-0.76
City of Port Townsend	Stationary Energy	573	807	807	661	479	115
	Transportation	379	533	533	437	316	76
	Water/Sewage	570	802	802	657	476	114
	City Total	**1522**	**2142**	**2142**	**1755**	**1272**	**304**
Percent from 1990			0.41	0.41	0.15	-0.16	-0.80
Percent from prev benchmark			0.41	0.00	-0.18	-0.28	-0.76





Calculation Notes

This version of Targets treats each SubSector separately with 2050 being 20% of what was Backcast for that particular category. The Targets for 2020 and 2030 are simply proportioned from the reduction between 2012 and 2050 according to the number of years.

Calculations by Stanley Willard 5-23-11

Appendix D.

Potential Funding Sources

The Resource Conservation Manager (RCM) is tasked with identifying funding for energy savings related to government operations. Savings on energy costs can then be directed toward other measures.

In regards community-wide emissions, stay in touch with ICLEI - they have several recommendations for where to turn when municipal resources fall short such as:

- *Local utilities should invest in energy conservation and offer rebates and other incentives for residential and commercial energy consumption.*

- *Assistance through federal and state programs - ICLEI's program staff can help connect city and county liaisons to resources at the state and national level to provide opportunities for obtaining financial and technical assistance available to local governments.*

- *Energy service corporations (ESCOs) ESCOs finance energy improvements which are then paid back by the cost savings from reduced energy bills. These businesses encourage the implementation of energy-saving measures and may be valuable resources for technical assistance, financing, and program implementation.*

We'll need to get creative – for example, - seek out partnerships for Education and Outreach like the 'partnership with non-profit' model implemented by Sustainable Connections, Bellingham & Whatcom WA. Another option is to look into funding for community outreach specifically, or even local economic development grants for business outreach (as opposed to just energy/environmental funding sources.)

Source	What is eligible?	Contact/Website
Federal		
American Reinvestment and Recovery Act (ARRA) Loan Program	Low-interest loans (with an interest rate of 1%) to help pay for energy efficiency retrofits in municipal, residential, commercial, non-profit, and low-income housing facilities. Eligible projects include improving lighting systems, replacing streetlights or traffic signals LEDs, installing automated energy management systems/controls and building insulation, energy generation including renewable and combined heat and power projects, heating and air conditioning modifications and upgrading waste water treatment equipment. Swimming pools and golf courses are not eligible for funding under this program.	http://www.energy.ca.gov/efficiency/financing/index.html. http://www.recovery.wa.gov/
EPA		
The Federal Transportation Investment Generating Economic Recovery (TIGER) grant program was created by the American Investment and Recovery Act (ARRA) of 2009.		http://www.dot.gov/recovery/ost/.

DOT TIGER II – HUD Community Challenge Planning Grant)	VMT Reduction Strategy - to develop and implement a regional strategy to reduce vehicle miles traveled and plan for a more sustainable transportation system across the North Olympic Peninsula.	Grants and Budget Division HUD's Office of Sustainable Housing and Communities Phone: 202-402-7683 Zuleika Morales-Romero, Director zuleika.k.morales@hud.gov.
State Funding		
Washington State Department of General Administration (GA)	Retrofit government buildings for energy efficiency	
Local Government/Utility		
Electricity Provider	Incentives for conservation and renewable energy , rebate programs for lighting, insulation, LEDs, high-efficiency HVAC equipment, etc.	
Non-Governmental Organizations		
American Forests Global ReLeaf Grant Program	Forest conservation/ tree planting projects in urban and natural areas.	http://www.americanforests.org/global_releaf/.

Appendix E

Worksheets – Proposed Actions for Government Operations

Governments Leading by Example
2020 Goals, Objectives and Actions

Annual GHG Reduction Goal *(Difference between FORECAST and TARGET emissions)*	Objectives	Sector	Actions	Estimated Annual GHG Reductions (CO2e Tons)	Estimated Cost Recovery (Years)
	City of Port Townsend				
City GHG Reduction Goal (CO2e Tons)		Buildings		**657**	
		Transportation		**175**	
	Total Estimated GHG Reduction			**832**	
833	percent toward 2020 Goal			100%	
	Jefferson County				
		Buildings		**1,326**	
County GHG Reduction Goal (CO2e Tons)		Transportation		**164**	
		Waste		**0**	
	Total Estimated GHG Reduction			**1,490**	
1,366	percent toward Goal			109%	
Combined GHG Reduction Goal (CO2e Tons)					
	Combined Estimated GHG Reduction			**2,322**	
2,198	**Percent toward 2020 Goal**			**106%**	

Governments Leading by Example Action Area

Prioritized Actions for **City of Port Townsend**

As Generated by CAPPA and Refined by RCM with Maximum Green Energy

CO2e (metric tons)	Sector	Actions	Estimated Cost	Est Annual Savings	Payback Years	CAPPA Worksheet	**Notes -** Please see numbered worksheets for details
320	Building	1.14	$6,000	$0	n/a	Green Energy	Cost is annual - fixed as proposed
118	Building	1.1	$12,500	$27,230	0.46	Green Building	Library and Mountain View
112	Building	1.4	$124,500	$25,863	4.81	Retrofits	RCM Estimates merged with CAPPA
43	Building	1.9	$24,750	$9,937	2.49	LED Streetlight	Replace only, already optimized for number
40	Building	1.13	$800	$9,200		Green Business	Green Business in 8 Departments
24	Building	1.6	$100,000	$5,475	18.26	Solar PV	RCM estimates run through CAPPA
0	Building	1.8	$0	$0		Lighting Retrofits	Do not include, most already switched (pre inventory)
61	Transport	1.7	$1,000	$25,749	0.04	Truck Idling	1.7 combines truck & LV idling
40	Transport	E-Cars					Existing Electric Cars
22	Transport	1.5	$0	$103,500	0.00	Small Vehicles	Cost previously budgeted (replacement schedule)
14	Transport	1.10	$6,250	$5,806	1.08	Carpool	
14	Transport	1.2	$23,750	$5,806	4.09	Telecommute	
11	Transport	1.3	$30,000	$5,889	5.09	Electric Vehicles	
9	Transport	E-Meters	$5,000	$3,475	1.44		Existing Remote Water Meters
4	Transport	1.7	$1,000	$35,000	0.03	Light Vehicle Idling	1.7 combines truck & LV idling
832							

Governments Leading by Example Action Area

Prioritized Actions for **Jefferson County**

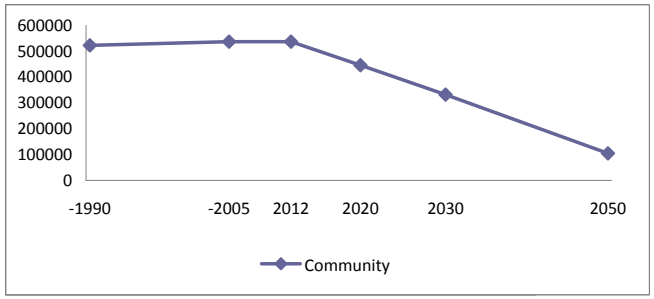
As Generated by CAPPA and Refined by RCM with Maximum Green Energy

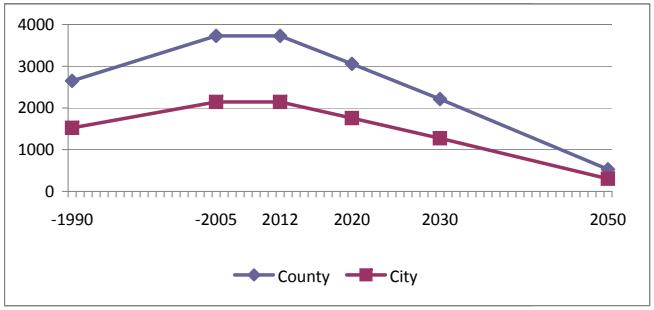
CO2e (metric tons)	Sector	Actions	Estimated Cost	Est Annual Savings	Payback Years	CAPPA Worksheet	**Notes -** Please see numbered worksheets for details
967	Building	1.14	$13,500	$0	n/a	Green Energy	Cost is annual - incremental per kWh
188	Building	1.4	$279,000	$43,468	6.42	Retrofits	RCM Estimates run through CAPPA
124	Building	1.13	$2,500	$28,750	0.09	Green Business	Green Business in 25 County Departments
47	Building	1.6	$200,000	$10,950	18.26	Solar PV	RCM estimates run through CAPPA
0	Building	1.1	$0	$0		Green Building	No new construction anticipated - RCM
0	Building	1.8	$0	$0		Lighting Retrofits	Do not include, most already switched (pre inventory)
0	Building	1.9	$0	$0		Streetlight LED	None (too few) for County -RCM
54	Transport	1.2	$23,750	$23,157	1.03	Telecommute	
42	Transport	1.7	$1,000	$22,163	0.05	Truck & LV Idling	1.7 combines truck & LV idling CAPPA worksheets
28	Transport	1.5	$0	$103,500	0.00	Small Vehicles	Cost previously budgeted
23	Transport	1.10	$18,750	$9,610	1.95	Carpool	
7	Transport	1.3	$20,000	$3,926	5.09	Electric Vehicles	
6	Transport	E-4day	$0	$48,244	0.00	Telecommute	Existing 20 employees w/20% reduced commute
4	Transport	E-Zenn	?	$6,758	0.00	Electric Vehicles	Existing 1 Taurus replaced by ZENN
0	Waste	1.12	$0	$0		Digester	City Only
1,490							

Targets for Future GHG Emissions

Greenhouse Gas Emissions in tons of CO2e

Category	Sectors/Subsector	-1990	-2005	2012	2020	2030	2050
Community	Stationary Energy						
	Residential	86827	121605	121605	99660	72228	17365
	Commercial	32902	49017	49017	40083	28915	6580
	Industrial	225665	154511	154511	131484	102700	45133
	Stationary Subtotal	**345394**	**325133**	**325133**	**271227**	**203844**	**69079**
	Transportation	175697	209079	209079	172460	126687	35139
	Solid Waste	1777	2502	2502	2050	1485	355
	Grand Total	**522868**	**536714**	**536714**	**445737**	**332016**	**104574**
Percent from 1990			0.03	0.03	-0.15	-0.37	-0.80
Jefferson County Gov't	Stationary Energy	1025	1443	1443	1182	857	205
	Transportation	1340	1886	1886	1545	1120	268
	Solid Waste	25	35	35	29	21	5
	Water	259	364	364	298	216	52
	County Total	**2648**	**3728**	**3728**	**3055**	**2213**	**530**
Percent from 1990			0.41	0.41	0.15	-0.16	-0.80
Percent from prev benchmark			0.41	0.00	-0.18	-0.28	-0.76
City of Port Townsend	Stationary Energy	573	807	807	661	479	115
	Transportation	379	533	533	437	316	76
	Water/Sewage	570	802	802	657	476	114
	City Total	**1522**	**2142**	**2142**	**1755**	**1272**	**304**
Percent from 1990			0.41	0.41	0.15	-0.16	-0.80
Percent from prev benchmark			0.41	0.00	-0.18	-0.28	-0.76





Calculation Notes

This version of Targets treats each SubSector separately with 2050 being 20% of what was Backcast for that particular category. The Targets for 2020 and 2030 are simply proportioned from the reduction between 2012 and 2050 according to the number of years.

Calculations by Stanley Willard 5-23-11

Perpared by Stanley Willard 3-24-11

	Greenhouse Gas Emissions in tons of CO2e						
		Backcast	Base Year	Forecasts, assuming current practices			
Category	**Sectors/Subsector**	**1990**	**2005**	**2012**	**2020**	**2030**	**2050**
Community	Stationary Energy						
	Residential	86827	121605	131487	143936	168974	261127
	Commercial	32902	49017	53868	60012	74893	114641
	Industrial	225665	154511	154511	154511	154511	154511
	Stationary Subtotal	**345394**	**325133**	**339866**	**358459**	**398378**	**530279**
	Rate of Change from previous milestone			1.05	1.05	1.11	1.33
	Transportation	175697	209079	228455	256018	319449	488989
	Rate of Change from previous milestone			1.09	1.12	1.25	1.53
	Solid Waste	1777	2502	2831	3261	3823	5852
	Rate of Change from previous milestone			1.13	1.15	1.17	1.53
	Community Total	**522868**	**536714**	**571154**	**617738**	**721650**	**1025120**
	Rate of Change from previous milestone			1.06	1.08	1.17	1.42
Jefferson County Gov't	Stationary Energy	1025	1443	1508	1591	1768	2353
	Transportation	1340	1886	2061	2309	2882	4411
	Solid Waste	25	35	40	46	53	82
	Water	259	364	412	474	556	851
	Jefferson County Total	**2648**	**3728**	**4021**	**4420**	**5259**	**7698**
City of Port Townsend	Stationary Energy	573	807	844	890	989	1316
	Transportation	379	533	582	653	814	1247
	Water/Sewage	570	802	907	1045	1225	1876
	City of Port Townsend Total	**1522**	**2142**	**2333**	**2588**	**3029**	**4439**
Population Data/Estimates		20406	28724	32500	37427	43858	55656

Notes on calculation methods Draft 4-29-11

For both backcast and forecasts, the method was to apply the annual percentage change from the base year of 2005 for any given year in the Jefferson county population to the various inputs in the Clean Air and Climate Protection (CACP) software.

For each period, this annual percentage change was applied to the following inputs:

- Residential: Electrical usage and number of households
  Commercial: Electrical usage, propane usage, floor area, number of employees and number of establishments
- Transportation: Gasoline and diesel usage
- Waste: Total tons CO_{2e}

The annual percentage population changes used were:
1990 – 2005 2.31%
2005 – 2012 1.78%
2005 – 2020 1.78%
2005 – 2030 1.71%
2005 - 2050 1.90%

For the industrial backcast an estimate of the reduction of Port Townsend Paper from 1990 to 2005 of about 32% was used based on the information supplied by Kristin Marshall and Bruce McComas. Thereafter, the future emissions were assumed to be constant based on the assumption that the production of green house gas was not population dependent.

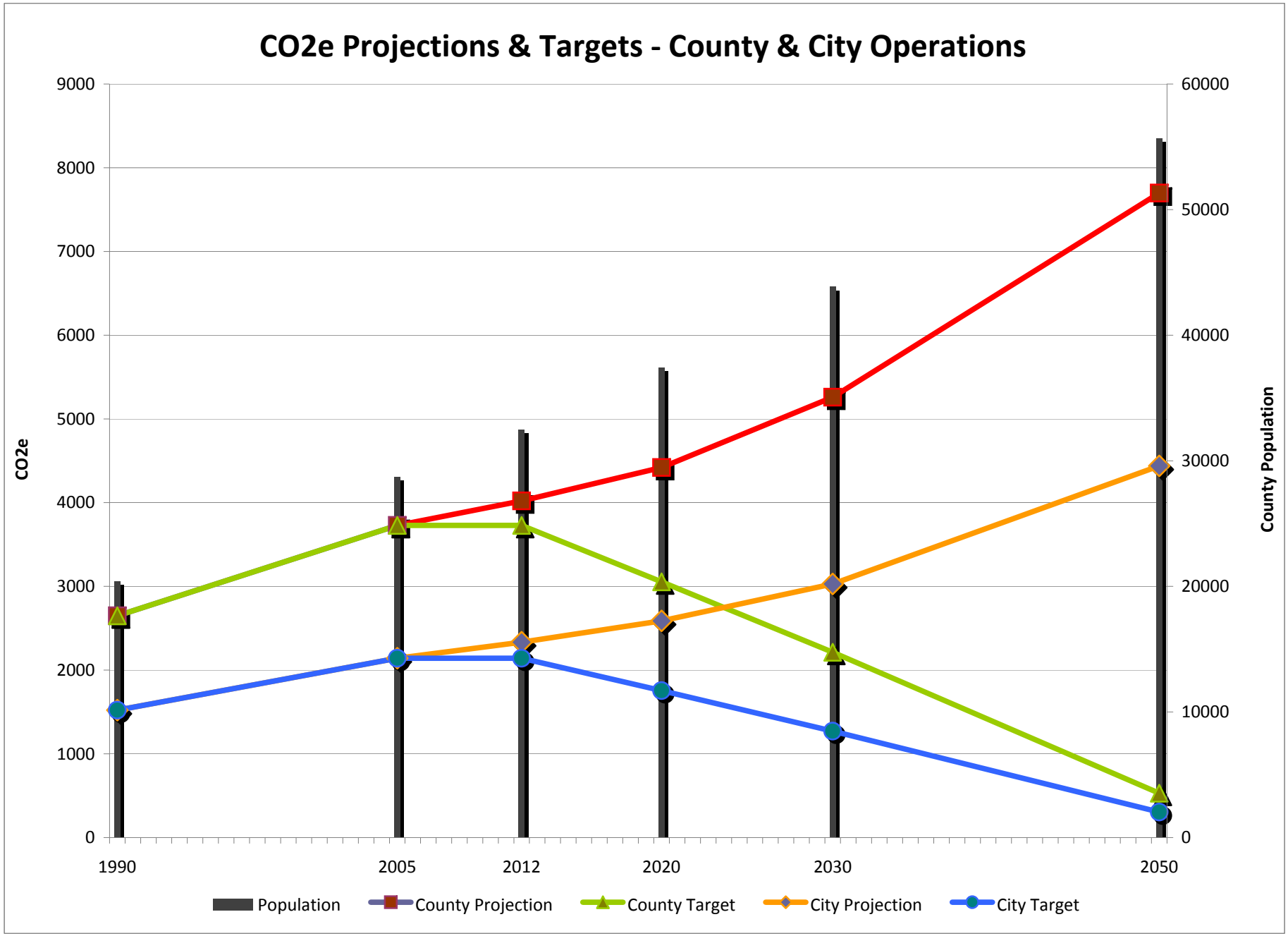
Stanley Willard

These calculations were made at the community level. The City and County Government Operations are a included in the Community total. The rate of change for a each subsector was applied to the known baseline inventory values for the City and County to determine the forecast their respective subsectors. Example: Transportation CO2e increased 9% in the community between 2005 and 2012. City Transportation in 2012 is calculated to be 582, reflecting a 9% increase over 2005.

GHG Reduction(in tons of CO2e) Needed to Reach Targets

Forecast Emissions minus Target Emmissions

Category	Sectors/Subsector	2012	2020	2030	2050
Community	Stationary Energy				
	Residential	9882	44276	96746	243762
	Commercial	4851	19929	45978	108061
	Industrial	0	23027	51811	109378
	Stationary Subtotal	**14733**	**87232**	**194534**	**461200**
	Transportation	19376	83558	192762	453850
	Solid Waste	329	1211	2338	5497
	Grand Total	**34438**	**172001**	**389634**	**920546**
Jefferson County Gov't	Stationary Energy	65	409	911	2148
	Transportation	175	764	1762	4143
	Solid Waste	5	17	33	77
	Water	48	176	340	800
	County Total	**293**	**1366**	**3046**	**7168**
City of Port Townsend	Stationary Energy	37	228	510	1202
	Transportation	49	216	498	1171
	Water/Sewage	105	388	749	1762
	City Total	**191**	**833**	**1757**	**4134**


CO2e Projections & Targets - County & City Operations
CO2e
County Population
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
60000
50000
40000
30000
20000
10000
0
1990
2005
2012
2020
2030
2050
Population
County Projection
County Target
City Projection
City Target

	1990	2005	2012	2020	2030	2050
Population	20406	28724	32500	37427	43858	55656
County Projection	2648	3728	4021	4420	5259	7698
County Target	2648	3728	3728	3055	2213	530
City Projection	1522	2142	2333	2588	3029	4439
City Target	1522	2142	2142	1755	1272	304

City of Port Townsend

Government Operations

Worksheet	Action	Lead	Cost Recovery (Years)	CO2e (metric tons)
1.14	Purchase Green Energy from the grid	County Administrator	n/a	320
1.1	Build all new City & County buildings and develop sites to at least a LEED Silver criterion, or some other third-party certification of energy, water and waste conservation strategies (e.g., Architecture 2030)	City Council and Public Works	0.46	118
1.4	Conduct energy audits for each city or county owned buildings and infrastructure to develop and implement a plan to reduce energy consumption.	RCM	4.81	112
1.9	Convert Streetlights to LED	Public Works	2.49	43
1.13	Set goals for government departments and encourage all local businesses to become certified by the Green Business program of Jefferson County Health	RCM & County Env. Health		40
1.6	Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and in parks, where appropriate and productive	RCM & Public Works	18.26	24
1.7	Establish a reduced idling policy for all government vehicles (heavy trucks)	Dept. Heads, Fleet Mgr & CAC	0.04	61
E-Cars	More efficient fleet and use of vehicles	Fleet Manager		40
1.5	Replace low-efficiency and high-emission vehicles with fuel-efficient & low-emission vehicles, like plug-in hybrids, as soon as possible	Fleet Managers & Dept. Heads	0.00	22
1.10	Create incentives for employees to reduce emissions in their daily commute	Dept. Heads	1.08	14

1.2	Implement vehicle trip reduction policy incorporating teleconferencing, telecommuting and alternative work schedules, where practical. Establish video and/or web conferencing capabilities in all major City and County facilities	Dept. Heads	4.09	14
1.3	Use electric vehicles or bicycles whenever possible (e.g., for meter reading and building inspection)	CAC & Fleet Manager	5.09	11
E-Meters	Replace all the water meters with remote read meters. About 400 of the total 5,000 are already remote read.	Public Works	1.44	9
1.7	Establish a reduced idling policy for all government vehicles (light vehicles)	Fleet Managers & Dept. Heads	0.03	4
	Total Greenhouse Gas Emission Reduction (100% of 2020 goal)			**832**

City of Port Townsend
Government Operations

Proposed Actions for City Operations	CO2e (metric tons)
Stationary Sources	
Purchase Green Energy from the grid	320
New City buildings & sites developed w/certification	118
Energy Audits and Conservation	112
Convert Streetlights to LED	43
City Departments Green Business Certified	40
Photovoltaic panels where appropriate & productive	24
Transportation Sources	
Reduced idling policy for all City vehicles	65
Existing - More efficient fleet and use of vehicles	40
Replace vehicles with fuel-efficient & low-emission vehicles	22
Employee commute incentives	14
e-government, telecommuting, alternative work schedules	14
Use electric vehicles or bicycles	11
Existing & projected - Remote read water meters	9
Total Greenhouse Gas Emission Reduction (13% above 2020 goal)	**832**

Jefferson County Government Operations				
Worksheet	**Action**	**Lead**	**Cost Recovery (Years)**	**CO2e (metric tons)**
1.14	Purchase Green Energy from the grid	Building	n/a	967
1.4	Conduct energy audits for each city or county owned buildings and infrastructure to develop and implement a plan to reduce energy consumption.	RCM	6.42	188
1.13	Set goals for government departments and encourage all local businesses to become certified by the Green Business program of Jefferson County Health	RCM & County Env. Health	0.09	124
1.6	Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and in parks, where appropriate and productive	RCM & Public Works	18.26	47
1.2	Implement vehicle trip reduction policy incorporating teleconferencing, telecommuting and alternative work schedules, where practical. Establish video and/or web conferencing capabilities in all major City and County facilities	Dept Heads	1.03	54
1.7	Establish a reduced idling policy for all government vehicles	Dept. Heads, Fleet Mgr & CAC	0.05	42
1.5	Replace low-efficiency and high-emission vehicles with fuel-efficient & low-emission vehicles, like plug-in hybrids, as soon as possible	Fleet Manager & Dept Heads	0.00	28
1.10	Create incentives for employees to reduce emissions in their daily commute	Dept Heads	1.95	23
1.3	Use electric vehicles or bicycles whenever possible (e.g., for meter reading and building inspection)	CAC & Fleet Manager	5.09	7
E-4day	Telecommute	Transport	0.00	6
E-Zenn	Electric Vehicles	Transport	0.00	4
	Total Greenhouse Gas Emission Reduction (109% of 2020 goal)			**1,490**

Jefferson County
Government Operations

Proposed Actions for County Operations	CO2e (metric tons)
Stationary Sources	
Purchase Green Energy from the grid	967
Energy Audits and Conservation	188
County Departments Green Business Certified	124
Photovoltaic panels where appropriate & productive	47
Transportation Sources	
e-government, telecommuting, alternative work schedules	54
Reduced idling policy for all County vehicles	42
Replace vehicles with fuel-efficient & low-emission vehicles	28
Employee commute incentives	23
Use electric vehicles or bicycles	7
Existing - 4-day work week	6
Existing - Electric Vehicles	4
Total Greenhouse Gas Emission Reduction (9% above 2020 goal)	**1,490**

Appendix F

Portland Climate Action Now's, Climate-friendly Actions At Home & For Your Business

Climate-friendly Actions at Home

Between driving, heating, cooling and powering our homes, Portland residents are responsible for about 50 percent of all local carbon emissions — and that's without counting the contribution of all the things we buy. At a national level, the production and distribution of goods amounts to another 38 percent of carbon emissions.

	TAKE ACTION TODAY!	NEXT STEPS...	START PLANNING FOR CHANGE.
	Most of these actions can be done in less than 20 minutes, for less than $20. Why wait?	With just a little set up time, you can get your household on the right track.	Some changes take time and planning. Start thinking about these goals now.
GETTING STARTED	Calculate your carbon footprint. **Quick:** www.footprintnetwork.org **Thorough:** www.epa.gov/climatechange/emissions/ind_calculator.html	Create a "carbon budget" for your household: identify areas where you can cut back.	Make a plan to reduce your carbon emissions by 5 percent every year.
BUILDINGS & ENERGY	Save energy and costs: replace incandescent light bulbs with efficient compact fluorescent light bulbs (CFL). www.18seconds.org Plug your microwave, stereo, chargers, television and computer equipment into power strips that can be shut off when not in use. Turn down your thermostat three degrees (or 66°F daytime and 55°F night time). If you have air conditioning, turn up your air conditioner three degrees.	Set up a free home energy review with Energy Trust of Oregon: 866-968-7878 www.energytrust.org Get a free water conservation kit from the Portland Water Bureau: 503-823-7439 www.portlandonline.com/water/conservationkits Buy clean energy from your utilities: PGE: 503-228-6322 www.portlandgeneral.com Pacific Power: 1-800-869-3717 www.pacificpower.net NW Natural: 1-800-422-4012 www.nwnatural.com	Fully insulate your home and seal ducts. Replace your furnace and home appliances with ENERGY STAR models that qualify for Oregon tax credits: www.oregon.gov/ENERGY When planning a home renovation project, call the Green Building Hotline for expert advice. 503-823-5431 www.buildgreen411.com Install solar water heating or a solar electric system on your home: 1-877-546-8769 www.solarnoworegon.org
MOBILITY	Maintain your car: properly inflate tires and keep it tuned up for efficient driving.	Shift daily trips to walking, bicycling, transit and carpooling to reduce driving. www.portlandonline.com/transportation	Buy the most fuel-efficient vehicle that meets your needs. If your household has more than one car, try to eliminate a car and borrow or share a second vehicle when you need one.
CONSUMPTION & SOLID WASTE	Recycle right: recycle all paper, metal and glass, as well as yogurt tubs and other plastics accepted at curbside: 503-823-7202 www.portlandonline.com/bps/carts Paper or plastic? No thanks! Take reusable bags with you every time you go shopping.	Compost food scraps in your backyard: www.oregonmetro.gov Shop Local: visit neighborhood shops and keep your dollars in Portland: www.portlandisbettertogether.com	Be a smart consumer: • Make a list. • Cross off any items that can be rented, purchased used or borrowed instead. • Buy long-lasting, durable goods.
FOOD, AGRICULTURE & URBAN FORESTRY	Visit a local farmers market to purchase fresh, local produce: www.portlandfarmersmarket.org	Reduce the number of times you eat beef and pork each week. Use native species and wildlife attracting plants in landscaping your yard.	Plant a vegetable garden or more trees: Portland Parks and Recreation, Community Gardens: 503-823-1612 www.portlandonline.com/parks Friends of Trees: : 503-282-8846 www.friendsoftrees.org

Climate-friendly Actions for Your Business

Did you know that the commercial sector accounts for 25 percent of the total volume of carbon emissions? And that's not counting carbon produced by employee commuting habits. Take action at work and you'll not only being doing your part to slow climate change; you'll also save money, conserve resources and enhance your reputation.

	TAKE ACTION TODAY!	NEXT STEPS...	START PLANNING FOR CHANGE.
	Most of these actions can be done in less than 20 minutes, for less than $20. Why wait?	With just a little set up time, you can get your business on the right track.	Some changes take time and planning. Start thinking about these goals now.
GETTING STARTED	**Contact the BEST Business Center for a free evaluation of your business operations.** Receive ideas on how to reduce energy usage, save money and shrink your carbon footprint. www.bestbusinesscenter.org	**Create a green team:** Write a sustainability plan and keep it fresh: review and evaluate success on a regular basis. Host annual employee sustainability education and engagement events.	**Become a Portland Climate Champion:** www.bestbusinesscenter.org/recognition
BUILDINGS & ENERGY	Minimize energy use when your building is unoccupied: Turn off all lights and computers each evening and turn back heating/cooling settings at night with a programmable thermostat. Convert all incandescent lights to compact fluorescent lights (CFL). Upgrade old T12 lights to T8 lights. If electricity fees are included in your lease, purchase renewable energy credits: www.green-e.org/gogreene.shtml	Buy clean energy from your utilities: PGE: 503-228-6322 www.portlandgeneral.com Pacific Power: 1-800-869-3717 www.pacificpower.net NW Natural: 1-800-422-4012 www.nwnatural.com Add occupancy sensors to infrequently used areas like bathrooms and storage rooms. Attend a free workshop to learn more about solar electric or solar water heating for your business: www.solaroregon.org/workshops	Create an office policy that requires ENERGY STAR certification for new equipment, like computers, printers and refrigerators. www.energystar.gov Install solar panels on your building: www.solarnoworegon.org
MOBILITY	Encourage employees to drive less and save more: www.drivelesssavemore.com Ask employees what would make it possible for them to commute without driving alone. Reduce corporate air travel by substituting web-conferencing or encouraging travel by train: www.webconferencing-test.com	Offer employees pre-tax transit passes. Provide information on nearby bus routes, bike parking and carpooling options: www.trimet.org www.tinyurl.com/pdxbikeparking www.carpoolmatchnw.org Offer incentives for employees to bike, walk, bus or carpool to work; consider $30 per month cash or two extra vacation days per year. Offer employees telecommuting options.	Locate your business near transit facilities. Provide secure bike parking. Remove or significantly reduce free or subsidized parking for employees. Offer employees a car-sharing membership for transportation needs during the day: www.zipcar.com
CONSUMPTION & SOLID WASTE	Follow the five easy steps to setting up a successful workplace recycling system: 2009-10 City of Portland Recycle at Work Certified www.recycleatwork.com/portland	Create a sustainable purchasing strategy for your workplace: identify products that contain recycled content or those that can be easily recycled at the end of use.	Cut your waste in half. Identify products that don't need to be consumed, used, disposed or recycled.

City of Portland Bureau of Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Appendix G

CAC Complete List of Prioritized Ideas for Greenhouse Gas Reduction Measures

Climate Action Committee

Prioritized Ideas for
Greenhouse Gas Reduction Measures

DRAFT

February 25, 2009

Not Recommended for Adoption - This list has not been endorsed by the CAC. It is merely intended to be a starting point for further refinement. The list is comprised of ideas brainstormed during CAC meetings and ideas submitted by government staff and the general public. Some of the ideas may not be practical, feasible or desirable. This list shows an initial attempt to prioritize the ideas using a crude scale of general feasibility and benefit, and i is anticipated that the document will be further modified.

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Process Description

The Climate Action Committee met on February 25, 2009 to begin a process of prioritizing the list of potential actions gathered in each of six categories. They used a software product called Meetingworks to score the potential ideas.

These committee members participated in the voting exercise:

John Austin
Taylor Beard/Nora Burnfield
Richard Dandrige
Jim Fritz
Kees Kolff
Denise Pranger
Pete Raab
Dana Roberts
Stanley Willard

The results presented here reflect the prioritization in each of six sections using two criteria (Benefit and Feasibility). Each table shows the average votes for each item for each criterion and a total of the two averages. The percentage indicated in each cell reflects the variability in the scores (a measure of agreement). The higher the percentage, the higher the disagreement.

Each table reflects the entire list in the section as well as the “keepers” highlighted in light blue. At the end of the table results, there is a Keeper List by section.

The Appendix contains all graphs so you can see the vote distribution for each idea on each criterion. Also, I included a “What If Scenario”, which shows a merged list of all of the keepers (top 25 ideas in light blue).

Section 1 - City and County Government Operations and Businesses: Leading by Example

Idea	Benefit	Feasibility	Total
1. Support sustainable forestry practices and protect existing trees, where appropriate.	4.22 (16%)	4.22 (13%)	8.44
2. Replace incandescent lights with compact fluorescent lights or LEDs in buildings and street lights.	4.22 (13%)	4.11 (20%)	8.33
3. Build all new buildings to at least a LEED Silver criterion (or a similar level in another green building standard).	4.44 (14%)	3.89 (18%)	8.33
4. Purchase fuel-efficient and/or alternative-fuel vehicles when available and suitable.	4.44 (14%)	3.78 (21%)	8.22
5. Renovate existing buildings to lessen energy consumption (e.g., insulation, windows), being mindful of Historic Preservation requirements when appropriate.	4.56 (14%)	3.44 (23%)	8.00
6. Install high-efficiency furnaces, variable-speed pumps and ultra-efficiency motors in all government facilities where replacement seems warranted.	4.33 (16%)	3.56 (21%)	7.89
7. Use electric-vehicle or bicycles for government functions whenever possible (e.g., meter reading, building inspection).	4.00 (23%)	3.89 (15%)	7.89
8. Phase out low-efficiency and high-emission vehicles as quickly as possible.	4.33 (21%)	3.56 (14%)	7.89
9. Regularly publish departmental carbon footprints and results of efforts to reduce them.	3.67 (19%)	4.22 (13%)	7.89
10. Establish a reduced idling policy for fleet vehicles.	3.44 (29%)	4.44 (14%)	7.88
11. Subsidize bus passes for employees.	3.89 (20%)	3.78 (16%)	7.67
12. Install heat pumps, air or geothermal, as a first choice for heating.	4.33 (13%)	3.33 (21%)	7.66

Idea	Benefit	Feasibility	Total
13. Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and parks.	4.22 (16%)	3.44 (10%)	7.66
14. Research options for natural, wetland wastewater treatment, particularly in new urban growth areas.	3.89 (18%)	3.56 (21%)	7.45
15. Purchase products with the lowest possible energy footprint, including embedded energy in production and transportation as well as lifecycle costs.	3.67 (25%)	3.67 (19%)	7.34
16. Encourage teleconferencing for meetings.	3.78 (23%)	3.44 (19%)	7.22
17. Accept new, low-impact development ideas that are presented as "demonstration projects."	3.67 (19%)	3.44 (17%)	7.11
18. Install software or power strips to ensure that computers and other electrical equipment is turned off when not in use.	3.00 (27%)	4.00 (16%)	7.00
19. Accept pervious paving methods for storm water management without requiring construction of duplicate "traditional" storm water system.	3.33 (23%)	3.56 (21%)	6.89
20. Develop alternative work schedules for employees, including a 4-day workweek for government operations.	3.56 (14%)	3.11 (24%)	6.67
21. Use electronic rather than paper-based communication when possible, including "paperless" meetings.	3.11 (24%)	3.56 (19%)	6.67
22. Perform regular route-efficiency analyses for routine routes for waste pickup, mail delivery, transit, police rounds, mill deliveries, etc.	3.44 (19%)	3.22 (23%)	6.66
23. Subsidize vanpools for employees if deemed cost effective.	3.44 (23%)	3.22 (16%)	6.66
24. Develop policies for inter-departmental car sharing and for using the most energy-efficient vehicle for the job.	3.33 (25%)	3.33 (13%)	6.66

Idea	Benefit	Feasibility	Total
25. Use double-sided printing for all documents when possible.	2.33 (28%)	4.22 (16%)	6.55
26. Form an internal committee to oversee the implementation of a comprehensive energy conservation plan for each department or business.	3.00 (19%)	3.44 (21%)	6.44
27. Support the development of an energy-efficient community swimming pool.	3.22 (28%)	3.11 (24%)	6.33
28. Encourage telecommuting for employees.	3.00 (23%)	3.33 (23%)	6.33
29. Invest in "green power," carbon offsets, and/or other renewable energy developments.	3.33 (21%)	3.00 (23%)	6.33
30. Install wind turbines on public property, where appropriate.	3.44 (19%)	2.78 (21%)	6.22
31. Replace inefficient pumps or modify how they are used in order to increase their efficiency.	3.11 (26%)	3.11 (22%)	6.22
32. Adjust shipping schedules and capacities to reduce vehicle-miles traveled.	3.22 (18%)	2.89 (11%)	6.11
33. Promote the installation and use of composting toilets.	3.00 (21%)	3.11 (22%)	6.11
34. Assure that software allows screen review of requested reports before printing.	2.00 (19%)	4.00 (23%)	6.00
35. Install roundabouts rather than new traffic signals, when possible.	3.00 (25%)	2.78 (21%)	5.78
36. Prohibit use of public funds for purchase of water in single-use plastic bottles,	3.00 (27%)	2.56 (32%)	5.56
37. Give bidding preference to contractors who use renewable fuels in their equipment.	2.78 (16%)	2.78 (18%)	5.56
38. Educate employee unions to the need for more efficient vehicles.	2.11 (22%)	3.44 (23%)	5.55
39. Install heat exchangers at public shower facilities.	2.56 (25%)	2.78 (18%)	5.34

Idea	Benefit	Feasibility	Total
40. Have local neighborhoods adopt local parks to reduce park staff travel.	2.67 (27%)	2.22 (21%)	4.89
41. Reduce mowing of grass in parks.	1.78 (16%)	3.00 (28%)	4.78
42. Replace mowers with grazing animals for park lawn maintenance.	2.56 (23%)	2.22 (23%)	4.78
43. Modify the city potable water system to eliminate need for chlorinating water that goes to the PTPC (the Mill).	2.67 (23%)	2.11 (18%)	4.78
44. Celebrate the 4th of July without the use of fireworks.	2.33 (16%)	1.89 (20%)	4.22
45. Eliminate need to transport and store chlorine for city water by generating chlorine at the site of chlorination.	2.11 (20%)	2.11 (22%)	4.22
46. Prohibit electric vending machines on public property.	2.11 (24%)	2.11 (28%)	4.22

Section 2 - Community-wide Transportation: Moving People and Goods More Efficiently

Idea	Benefit	Feasibility	Total
1. Develop a Smart Trips program to promote public transportation, ride-sharing, walking and biking.	4.11 (22%)	4.00 (21%)	8.11
2. Increase funding for public transportation.	4.56 (14%)	3.44 (17%)	8.00
3. Develop a commuter-friendly transit plan and increase service where appropriate.	3.89 (18%)	3.78 (8%)	7.67
4. Promote use of fuel efficient, alternative-fuel and hybrid vehicles, including low-pollution scooters.	4.00 (23%)	3.56 (17%)	7.56
5. Provide electric vehicle recharging stations at government offices, in residential areas, and in commercial crossroads.	4.44 (14%)	3.00 (23%)	7.44
6. Increase bicycle-carrying capacity of buses by promoting portable bikes.	3.56 (23%)	3.78 (18%)	7.34
7. Implement existing City non-motorized transportation plan.	3.56 (17%)	3.67 (19%)	7.23
8. Adopt reduced-idling ordinance.	3.33 (23%)	3.89 (24%)	7.22
9. Build "complete streets" (including facilities for pedestrians and bicycles) on major arterials and other locations, where appropriate.	4.00 (19%)	3.22 (26%)	7.22
10. Institute parking fees in commercial centers, to encourage use of transit and other transportation modes.	3.78 (16%)	3.22 (25%)	7.00
11. Develop a bounty for retiring a high-emission vehicle.	3.67 (16%)	3.33 (19%)	7.00
12. Develop a comprehensive county-wide bicycle and pedestrian plan for all appropriate areas of the county.	3.11 (20%)	3.67 (21%)	6.78

Idea	Benefit	Feasibility	Total
13. Establish a low-interest loan program for private initiatives that reduce energy consumption (e.g., vehicle emission-reduction devices)	3.44 (14%)	3.00 (19%)	6.44
14. Establish and consistently enforce policies for bicycle safety.	2.67 (21%)	3.67 (16%)	6.34
15. Implement a car/truck-sharing service.	3.44 (23%)	2.89 (20%)	6.33
16. Provide covered bicycle parking at commercial, school, and government buildings.	2.67 (23%)	3.56 (10%)	6.23
17. Use parking fees to discourage single occupancy vehicle travel, and financially support transit and non-motorized transportation options.	3.33 (13%)	2.89 (20%)	6.22
18. Tax parking areas as part of the "land improvements" for property tax calculations.	3.00 (21%)	2.67 (19%)	5.67
19. Retrofit diesel trucks with emission-reducing devices,	3.22 (23%)	2.44 (14%)	5.66

Section 3 - Community-wide Stationary Sources: Energy Efficiency in Our Buildings, Homes, and Industries

Idea	Benefit	Feasibility	Total
1. Provide incentives for installation of solar-photovoltaic, solar-thermal, geothermal, wind, and other renewable-energy systems.	4.44 (10%)	4.11 (18%)	8.55
2. Establish a low-interest loan program for private initiatives that reduce energy consumption (e.g., weatherization, furnace improvement, renewable energy).	4.44 (10%)	3.89 (26%)	8.33
3. Expand home-weatherization assistance programs for low-income residents.	4.22 (13%)	3.89 (11%)	8.11
4. Require use of a standardized green-building point-system (e.g., LEED, Built Green) for permitting of construction and remodeling projects.	4.44 (17%)	3.67 (23%)	8.11
5. Revise building codes to require greater insulation.	4.11 (15%)	3.67 (21%)	7.78
6. Encourage use of motion sensors for outdoor lighting.	3.44 (17%)	4.22 (18%)	7.66
7. Reduce total number of streetlights.	3.56 (19%)	3.89 (22%)	7.45
8. Use energy-saving lamps (e.g., led) for outdoor lighting.	3.78 (21%)	3.56 (14%)	7.34
9. Distribute "green building" advice booklets.	2.78 (21%)	4.56 (14%)	7.34
10. Eliminate unnecessary or overly bright outdoor lighting (e.g., "full cut-off" fixtures).	3.67 (13%)	3.56 (21%)	7.23
11. Promote energy auditing in homes and businesses.	3.67 (13%)	3.56 (17%)	7.23
12. Require sellers to provide current energy audit information to buyers before the sale of any building.	3.56 (14%)	3.56 (23%)	7.12

Idea	Benefit	Feasibility	Total
13. Expedite building permits for projects that reach a prescribed level on the green-building point system.	3.78 (23%)	3.33 (21%)	7.11
14. Develop programs to improve, convert, or replace inefficient furnaces.	3.44 (19%)	3.33 (16%)	6.77
15. Implement a "Dark-Sky" ordinance to reduce nighttime energy use (prohibit lighting "trespass" by poorly directed fixtures).	3.33 (27%)	3.33 (19%)	6.66
16. Promote the use of efficient wood burning heating appliances.	3.33 (13%)	3.22 (16%)	6.55
17. Replace all two-stroke engines with four-stroke engines.	3.67 (27%)	2.78 (16%)	6.45
18. Provide information on carbon reduction strategies for homebuyers at real estate offices.	2.67 (21%)	3.67 (16%)	6.34
19. Revise building codes to allow for greater heights and reduced setbacks in projects seeking solar or wind access.	3.44 (19%)	2.89 (18%)	6.33
20. Eliminate use of gas-powered leaf blowers.	3.33 (28%)	2.67 (19%)	6.00
21. Create awards for businesses and developments with exemplary strategies for lowering GHG emissions.	2.33 (13%)	3.67 (23%)	6.00

Section 4 - Community-wide Land Use: Enhancing Compact, Walkable, and generally more Livable Neighborhoods

Idea	Benefit	Feasibility	Total
1. Promote townhouse, cluster and mixed-use development, encouraging density and multi-modal transportation options.	4.22 (18%)	4.11 (15%)	8.33
2. Create pedestrian and bicycle-friendly communities and commercial areas (e.g., trails, pathways, rights-of-way on pavement).	4.00 (25%)	3.67 (16%)	7.67
3. Promote urban density through code revisions for items such as setbacks, lot orientation, and, height restrictions,	3.89 (15%)	3.67 (25%)	7.56
4. Promote programs that offers carbon credits for timberlands.	3.78 (18%)	3.56 (23%)	7.34
5. Establish tree planting incentives for developments in locations where they do not block passive solar access, and disincentives for tree removal in established neighborhoods.	3.67 (19%)	3.67 (21%)	7.34
6. Promote the use of drought-tolerant native plants as well as tolerant non-natives.	3.11 (29%)	4.11 (20%)	7.22
7. Develop program for use of local produce in school menus.	3.33 (27%)	3.67 (21%)	7.00
8. Make farm produce stands an allowed use anywhere and not a conditional use only allowed in some zones and on certain types of streets.	3.44 (25%)	3.56 (23%)	7.00
9. Promote small and affordable housing by including surcharges on permits for residences greater than a specified size (e.g., 2400 square feet).	3.44 (21%)	3.56 (25%)	7.00
10. Encourage more street plantings and home garden plots through permitting process.	3.11 (26%)	3.67 (23%)	6.78
11. Restrict development on land that is ideally suited for agriculture.	3.67 (23%)	3.11 (18%)	6.78

Idea	Benefit	Feasibility	Total
12. Encourage the planting of rain gardens and other "Low-Impact Development" techniques.	3.11 (22%)	3.67 (16%)	6.78
13. Support biogas production from manure.	3.44 (19%)	3.33 (13%)	6.77
14. Provide space for farmer's markets and produce stands.	3.00 (21%)	3.67 (23%)	6.67
15. Reduce and/or eliminate parking requirements for developments to encourage walkability, use of transit and other transportation modes.	3.22 (18%)	3.44 (17%)	6.66
16. Promote worm bins and composting systems for the food and yard debris diversion program as part of the state-wide Beyond Waste effort.	2.67 (23%)	3.78 (25%)	6.45
17. Support a cooperative "mobile meat processing plant" to provide for local processing.	3.00 (25%)	3.44 (21%)	6.44
18. Provide incentives for contractors to use pervious concrete/asphalt on new paving projects if it reduces the total amount of construction required.	3.11 (20%)	3.22 (21%)	6.33
19. Prohibit outdoor burning.	3.11 (20%)	3.00 (25%)	6.11
20. Develop in-school food production programs for student lunch menu.	3.00 (23%)	3.11 (18%)	6.11
21. Allow and promote the use of city rights-of-way for community gardens.	2.67 (16%)	3.33 (21%)	6.00

Section 5 - Community-wide Waste Management: Re-use, Recycling, and Disposal

Idea	Benefit	Feasibility	Total
1. Require waste recycling.	4.22 (23%)	3.78 (25%)	8.00
2. Encourage dis-assembly, deconstruction and recycling of structures to be demolished.	3.78 (16%)	4.11 (18%)	7.89
3. Promote adaptive reuse of historic or older buildings.	4.00 (21%)	3.78 (21%)	7.78
4. Develop a program for mandatory recycling of construction waste at all construction sites that take delivery of dumpsters.	3.78 (21%)	3.89 (20%)	7.67
5. Investigate wetland filtration systems as an alternative to traditional sewage treatment.	3.78 (16%)	3.78 (21%)	7.56
6. Publicize pick-up services for pre-cycling, recycling and trash.	3.11 (20%)	4.11 (15%)	7.22
7. Encourage reduced use of packaging, especially for building materials.	3.78 (21%)	3.44 (14%)	7.22
8. Promote neighborhood composting centers.	3.44 (25%)	3.78 (18%)	7.22
9. Ease restrictions on rainwater catchment systems.	3.22 (28%)	3.89 (18%)	7.11
10. Investigate wastewater reclamation strategies for users such as golf courses.	3.33 (21%)	3.67 (21%)	7.00
11. Establish compost credits for payment of yard waste tipping fees.	2.89 (11%)	3.67 (13%)	6.56
12. Establish a home pick-up pre-cycling program for items that might be reused.	3.00 (21%)	3.33 (16%)	6.33
13. Develop better incentives for small garbage containers via the rate structure for solid waste.	2.89 (20%)	3.11 (15%)	6.00

Section 6 - Community-wide Education: Promoting Sustainability in K-12 Schools, Community Colleges, Extension Service, and News Media

Idea	Benefit	Feasibility	Total
1. Publish articles and a regular newspaper column with information about sustainability.	2.89 (18%)	4.56 (14%)	7.45
2. Develop classes for clean energy, gardening, agriculture, sustainability skills.	3.56 (21%)	3.78 (16%)	7.34
3. Coordinate curriculum of sustainability course offerings at WSU, Peninsula College and other local schools.	2.89 (15%)	3.56 (21%)	6.45
4. Develop civics and environmental classes on sustainable practices at all levels of education, including offerings for adult learning.	3.11 (24%)	3.22 (18%)	6.33
5. Develop lists for student projects on sustainability.	2.33 (13%)	3.33 (16%)	5.66
6. Create banners and signs promoting sustainability programs.	1.67 (19%)	3.44 (30%)	5.11

Keeper List

- Section 1
    - 8.44 Support sustainable forestry practices and protect existing trees, where appropriate.
    - 8.33 Replace incandescent lights with compact fluorescent lights or LEDs in buildings and street lights.
    - 8.33 Build all new buildings to at least a LEED Silver criterion (or a similar level in another green building standard).
    - 8.22 Purchase fuel-efficient and/or alternative-fuel vehicles when available and suitable.
    - 8.00 Renovate existing buildings to lessen energy consumption (e.g., insulation, windows), being mindful of Historic Preservation requirements when appropriate.
    - 7.89 Use electric-vehicle or bicycles for government functions whenever possible (e.g., meter reading, building inspection).
    - 7.89 Regularly publish departmental carbon footprints and results of efforts to reduce them.
    - 7.89 Phase out low-efficiency and high-emission vehicles as quickly as possible.
    - 7.89 Install high-efficiency furnaces, variable-speed pumps and ultra-efficiency motors in all government facilities where replacement seems warranted.
    - 7.88 Establish a reduced idling policy for fleet vehicles.
    - 7.67 Subsidize bus passes for employees.
    - 7.66 Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and parks.
    - 7.66 Install heat pumps, air or geothermal, as a first choice for heating.
    - 7.45 Research options for natural, wetland wastewater treatment, particularly in new urban growth areas.
    - 7.34 Purchase products with the lowest possible energy footprint, including embedded energy in production and transportation as well as lifecycle costs.
    - 7.22 Encourage teleconferencing for meetings.
    - 7.11 Accept new, low-impact development ideas that are presented as "demonstration projects."
    - 7.00 Install software or power strips to ensure that computers and other electrical equipment is turned off when not in use.
- Section 2
    - 8.11 Develop a Smart Trips program to promote public transportation, ride-sharing, walking and biking.
    - 8.00 Increase funding for public transportation.
    - 7.67 Develop a commuter-friendly transit plan and increase service where appropriate.

    - 7.56 Promote use of fuel efficient, alternative-fuel and hybrid vehicles, including low-pollution scooters.
    - 7.44 Provide electric vehicle recharging stations at government offices, in residential areas, and in commercial crossroads.
    - 7.34 Increase bicycle-carrying capacity of buses by promoting portable bikes.
    - 7.23 Implement existing City non-motorized transportation plan.
    - 7.22 Build "complete streets" (including facilities for pedestrians and bicycles) on major arterials and other locations, where appropriate.
    - 7.22 Adopt reduced-idling ordinance.
    - 7.00 Develop a bounty for retiring a high-emission vehicle.
    - 7.00 Institute parking fees in commercial centers, to encourage use of transit and other transportation modes.
- Section 3
    - 8.55 Provide incentives for installation of solar-photovoltaic, solar-thermal, geothermal, wind, and other renewable-energy systems.
    - 8.33 Establish a low-interest loan program for private initiatives that reduce energy consumption (e.g., weatherization, furnace improvement, renewable energy).
    - 8.11 Require use of a standardized green-building point-system (e.g., LEED, Built Green) for permitting of construction and remodeling projects.
    - 8.11 Expand home-weatherization assistance programs for low-income residents.
    - 7.78 Revise building codes to require greater insulation.
    - 7.66 Encourage use of motion sensors for outdoor lighting.
    - 7.45 Reduce total number of streetlights.
    - 7.34 Distribute "green building" advice booklets.
    - 7.34 Use energy-saving lamps (e.g., led) for outdoor lighting.
    - 7.23 Promote energy auditing in homes and businesses.
    - 7.23 Eliminate unnecessary or overly bright outdoor lighting (e.g., "full cut-off" fixtures).
- Section 4
    - 8.33 Promote townhouse, cluster and mixed-use development, encouraging density and multi-modal transportation options.
    - 7.67 Create pedestrian and bicycle-friendly communities and commercial areas (e.g., trails, pathways, rights-of-way on pavement).
    - 7.56 Promote urban density through code revisions for items such as setbacks, lot orientation, and, height restrictions,
    - 7.34 Establish tree planting incentives for developments in locations where they do not block passive solar access, and disincentives for tree removal in established neighborhoods.
    - 7.34 Promote programs that offers carbon credits for timberlands.
    - 7.22 Promote the use of drought-tolerant native plants as well as tolerant non-natives.

    - 7.00 Promote small and affordable housing by including surcharges on permits for residences greater than a specified size (e.g., 2400 square feet).
    - 7.00 Make farm produce stands an allowed use anywhere and not a conditional use only allowed in some zones and on certain types of streets.
    - 7.00 Develop program for use of local produce in school menus.
- Section 5
    - 8.00 Require waste recycling.
    - 7.89 Encourage dis-assembly, deconstruction and recycling of structures to be demolished.
    - 7.78 Promote adaptive reuse of historic or older buildings.
    - 7.67 Develop a program for mandatory recycling of construction waste at all construction sites that take delivery of dumpsters.
    - 7.56 Investigate wetland filtration systems as an alternative to traditional sewage treatment.
    - 7.22 Publicize pick-up services for pre-cycling, recycling and trash.
    - 7.22 Promote neighborhood composting centers.
    - 7.22 Encourage reduced use of packaging, especially for building materials.
    - 7.11 Ease restrictions on rainwater catchment systems.
    - 7.00 Investigate wastewater reclamation strategies for users such as golf courses.
- Section 6
    - 7.45 Publish articles and a regular newspaper column with information about sustainability.
    - 7.34 Develop classes for clean energy, gardening, agriculture, sustainability skills.

Appendix

What If Scenario (All Keepers, Sorted Descending)

Top 25 in light blue

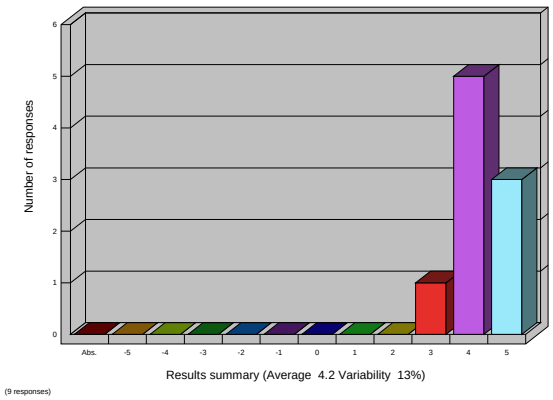
1. 8.55 Provide incentives for installation of solar-photovoltaic, solar-thermal, geothermal, wind, and other renewable-energy systems.
2. 8.44 Support sustainable forestry practices and protect existing trees, where appropriate.
3. 8.33 Replace incandescent lights with compact fluorescent lights or LEDs in buildings and street lights.
4. 8.33 Promote townhouse, cluster and mixed-use development, encouraging density and multi-modal transportation options.
5. 8.33 Establish a low-interest loan program for private initiatives that reduce energy consumption (e.g., weatherization, furnace improvement, renewable energy).
6. 8.33 Build all new buildings to at least a LEED Silver criterion (or a similar level in another green building standard).
7. 8.22 Purchase fuel-efficient and/or alternative-fuel vehicles when available and suitable.
8. 8.11 Require use of a standardized green-building point-system (e.g., LEED, Built Green) for permitting of construction and remodeling projects.
9. 8.11 Expand home-weatherization assistance programs for low-income residents.
10. 8.11 Develop a Smart Trips program to promote public transportation, ride-sharing, walking and biking.
11. 8.00 Require waste recycling.
12. 8.00 Renovate existing buildings to lessen energy consumption (e.g., insulation, windows), being mindful of Historic Preservation requirements when appropriate.
13. 8.00 Increase funding for public transportation.
14. 7.89 Use electric-vehicle or bicycles for government functions whenever possible (e.g., meter reading, building inspection).
15. 7.89 Regularly publish departmental carbon footprints and results of efforts to reduce them.
16. 7.89 Phase out low-efficiency and high-emission vehicles as quickly as possible.
17. 7.89 Install high-efficiency furnaces, variable-speed pumps and ultra-efficiency motors in all government facilities where replacement seems warranted.
18. 7.89 Encourage dis-assembly, deconstruction and recycling of structures to be demolished.
19. 7.88 Establish a reduced idling policy for fleet vehicles.
20. 7.78 Revise building codes to require greater insulation.
21. 7.78 Promote adaptive reuse of historic or older buildings.
22. 7.67 Subsidize bus passes for employees.
23. 7.67 Develop a program for mandatory recycling of construction waste at all construction sites that take delivery of dumpsters.

24. 7.67 Develop a commuter-friendly transit plan and increase service where appropriate.
25. 7.67 Create pedestrian and bicycle-friendly communities and commercial areas (e.g., trails, pathways, rights-of-way on pavement).
26. 7.66 Install photovoltaic panels on existing buildings and for stand-alone lighting on streets and parks.
27. 7.66 Install heat pumps, air or geothermal, as a first choice for heating.
28. 7.66 Encourage use of motion sensors for outdoor lighting.
29. 7.56 Promote use of fuel efficient, alternative-fuel and hybrid vehicles, including low-pollution scooters.
30. 7.56 Promote urban density through code revisions for items such as setbacks, lot orientation, and, height restrictions,
31. 7.56 Investigate wetland filtration systems as an alternative to traditional sewage treatment.
32. 7.45 Research options for natural, wetland wastewater treatment, particularly in new urban growth areas.
33. 7.45 Reduce total number of streetlights.
34. 7.45 Publish articles and a regular newspaper column with information about sustainability.
35. 7.44 Provide electric vehicle recharging stations at government offices, in residential areas, and in commercial crossroads.
36. 7.34 Use energy-saving lamps (e.g., led) for outdoor lighting.
37. 7.34 Purchase products with the lowest possible energy footprint, including embedded energy in production and transportation as well as lifecycle costs.
38. 7.34 Promote programs that offers carbon credits for timberlands.
39. 7.34 Increase bicycle-carrying capacity of buses by promoting portable bikes.
40. 7.34 Establish tree planting incentives for developments in locations where they do not block passive solar access, and disincentives for tree removal in established neighborhoods.
41. 7.34 Distribute "green building" advice booklets.
42. 7.34 Develop classes for clean energy, gardening, agriculture, sustainability skills.
43. 7.23 Promote energy auditing in homes and businesses.
44. 7.23 Implement existing City non-motorized transportation plan.
45. 7.23 Eliminate unnecessary or overly bright outdoor lighting (e.g., "full cut-off" fixtures).
46. 7.22 Publicize pick-up services for pre-cycling, recycling and trash.
47. 7.22 Promote the use of drought-tolerant native plants as well as tolerant non-natives.
48. 7.22 Promote neighborhood composting centers.
49. 7.22 Encourage teleconferencing for meetings.
50. 7.22 Encourage reduced use of packaging, especially for building materials.
51. 7.22 Build "complete streets" (including facilities for pedestrians and bicycles) on major arterials and other locations, where appropriate.
52. 7.22 Adopt reduced-idling ordinance.
53. 7.11 Ease restrictions on rainwater catchment systems.

54. 7.11 Accept new, low-impact development ideas that are presented as "demonstration projects."
55. 7.00 Promote small and affordable housing by including surcharges on permits for residences greater than a specified size (e.g., 2400 square feet).
56. 7.00 Make farm produce stands an allowed use anywhere and not a conditional use only allowed in some zones and on certain types of streets.
57. 7.00 Investigate wastewater reclamation strategies for users such as golf courses.
58. 7.00 Institute parking fees in commercial centers, to encourage use of transit and other transportation modes.
59. 7.00 Install software or power strips to ensure that computers and other electrical equipment is turned off when not in use.
60. 7.00 Develop program for use of local produce in school menus.
61. 7.00 Develop a bounty for retiring a high-emission vehicle.

Section 1 Graphs

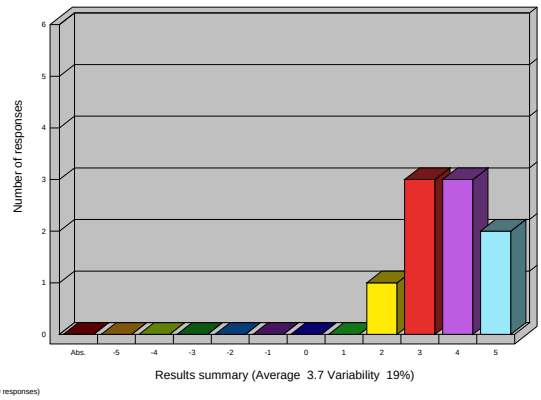
Support sustainable forestry practices and prot... vs Feasibility



Results summary (Average 4.2 Variability 13%)

(9 responses)

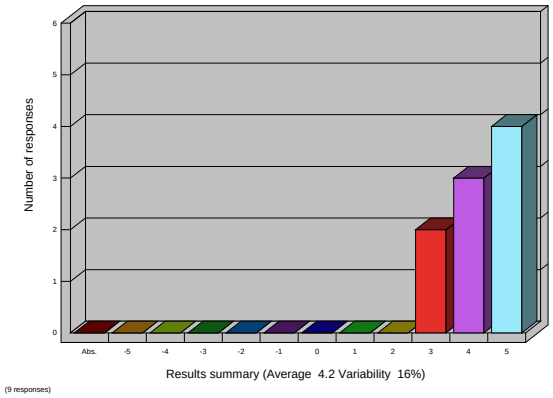
Regularly publish departmental carbon footprints an... vs Benefit



Results summary (Average 3.7 Variability 19%)

(9 responses)

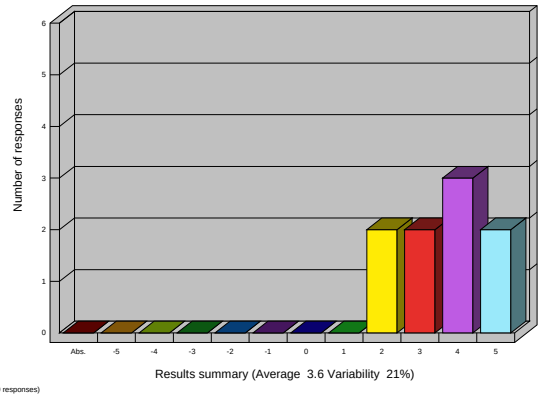
Support sustainable forestry practices and protect ... vs Benefit



Results summary (Average 4.2 Variability 16%)

(9 responses)

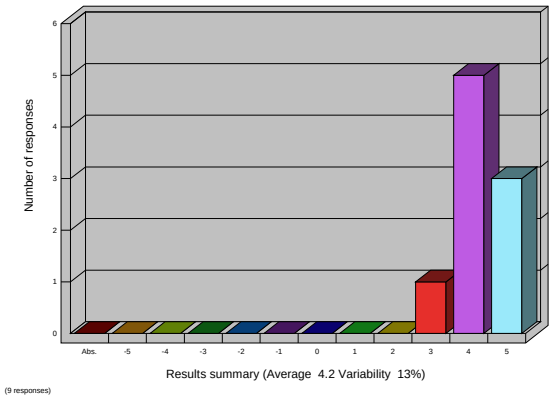
Research options for natural, wetland wastewate... vs Feasibility



Results summary (Average 3.6 Variability 21%)

(9 responses)

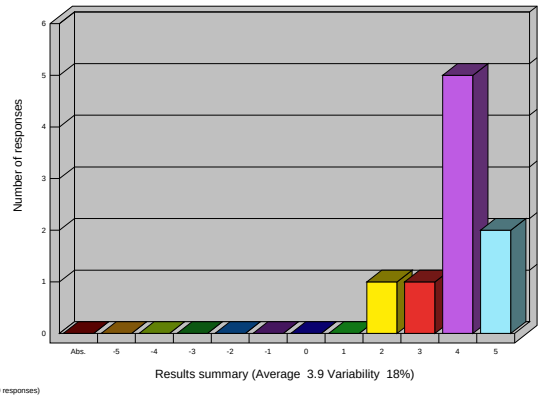
Regularly publish departmental carbon footprint... vs Feasibility



Results summary (Average 4.2 Variability 13%)

(9 responses)

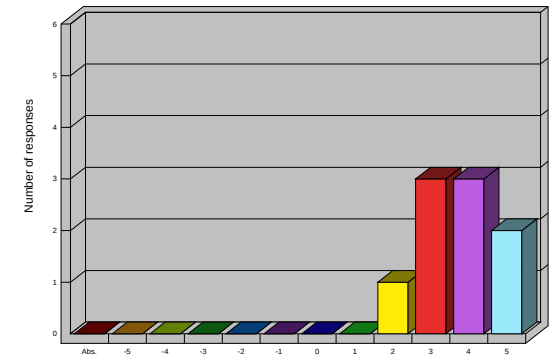
Research options for natural, wetland wastewater tr... vs Benefit



Results summary (Average 3.9 Variability 18%)

(9 responses)

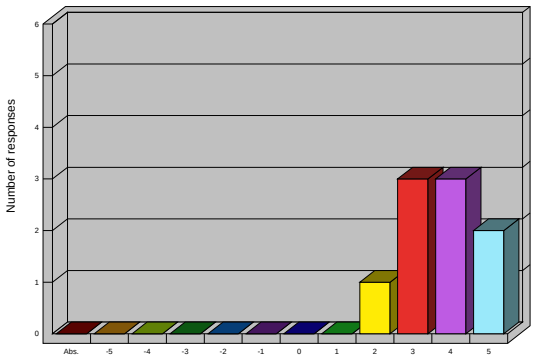
Purchase products with the lowest possible ener... vs Feasibility



Results summary (Average 3.7 Variability 19%)

(9 responses)

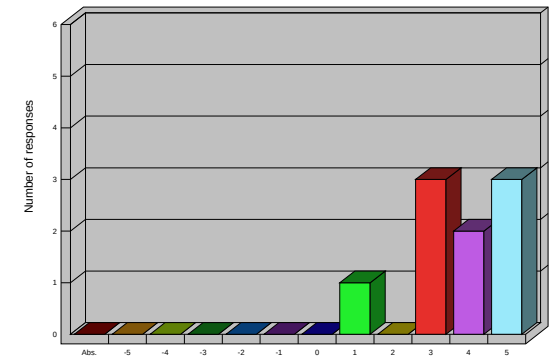
Accept new, low-impact development ideas that are p... vs Benefit



Results summary (Average 3.7 Variability 19%)

(9 responses)

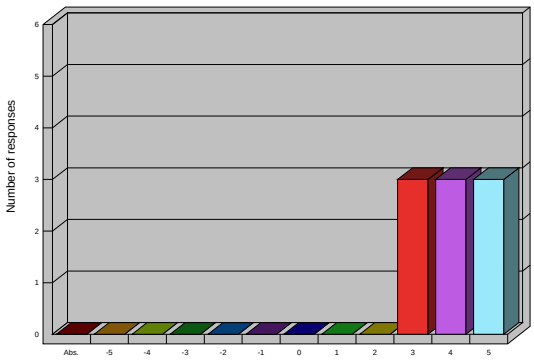
Purchase products with the lowest possible energy f... vs Benefit



Results summary (Average 3.7 Variability 25%)

(9 responses)

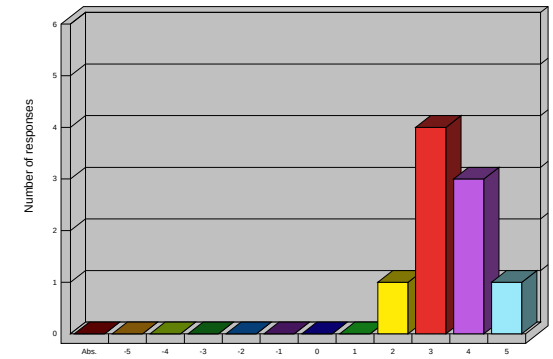
Install software or power strips to ensure that... vs Feasibility



Results summary (Average 4.0 Variability 16%)

(9 responses)

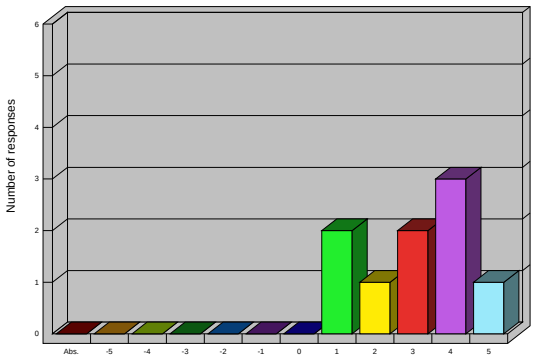
Accept new, low-impact development ideas that a... vs Feasibility



Results summary (Average 3.4 Variability 17%)

(9 responses)

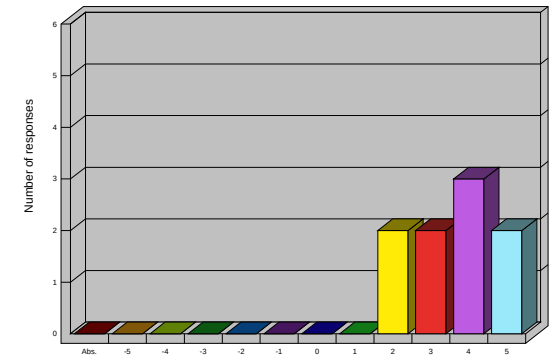
Install software or power strips to ensure that com... vs Benefit



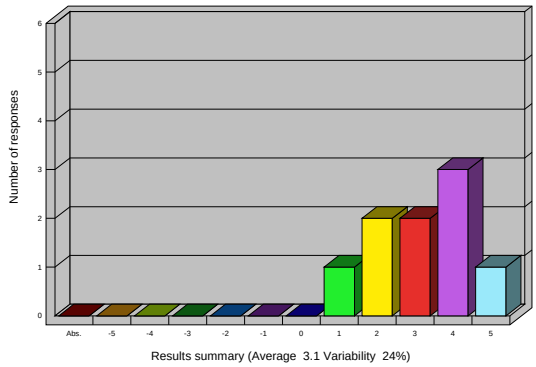
Results summary (Average 3.0 Variability 27%)

(9 responses)

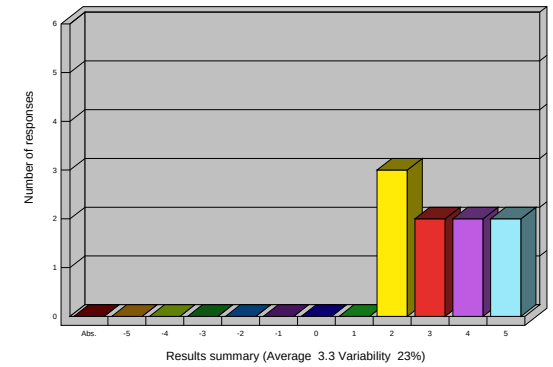
Accept pervious paving methods for storm water ... vs Feasibility



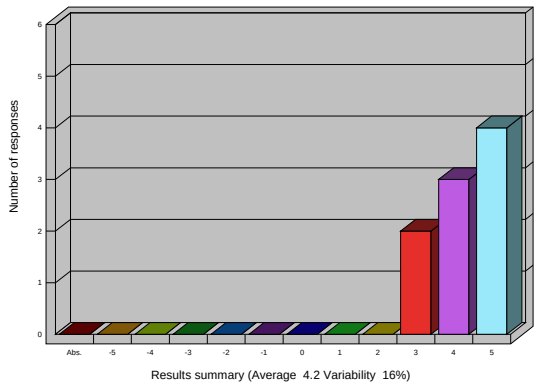
Use electronic rather than paper-based communicatio... vs Benefit



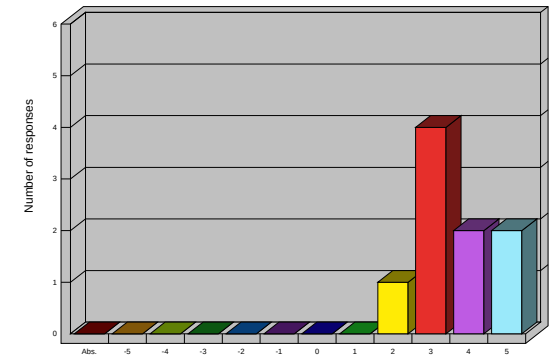
Accept pervious paving methods for storm water mana... vs Benefit



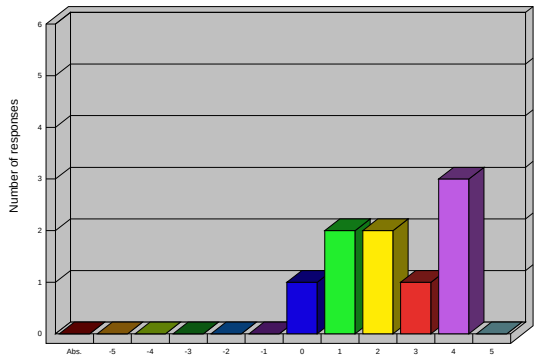
Use double-sided printing for all documents whe... vs Feasibility



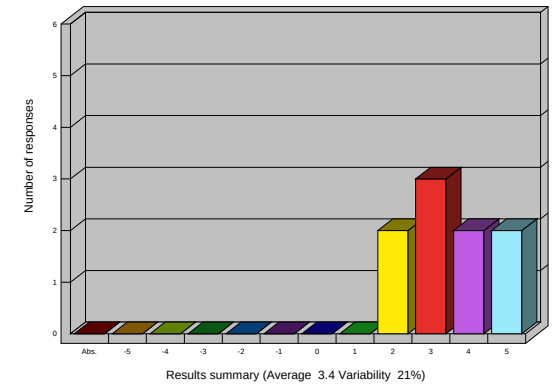
Use electronic rather than paper-based communic... vs Feasibility



Use double-sided printing for all documents when po... vs Benefit

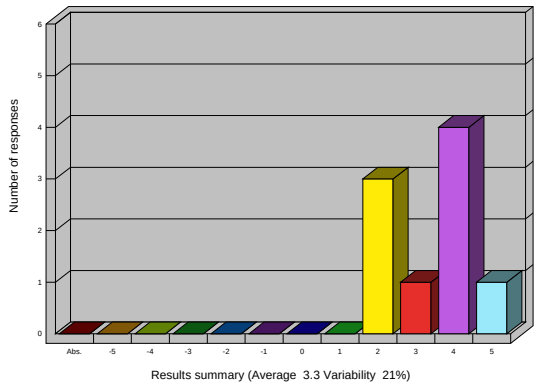


Form an internal committee to oversee the imple... vs Feasibility



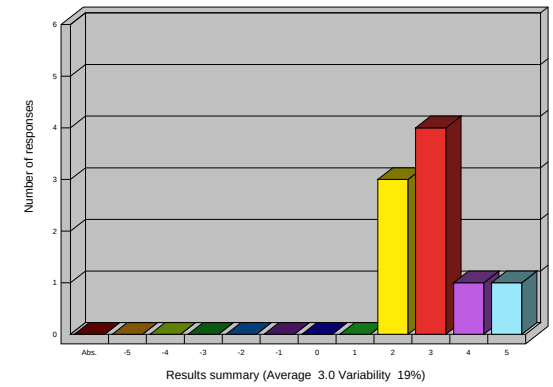
(9 responses)

Invest in "green power," carbon offsets, and/or oth... vs Benefit



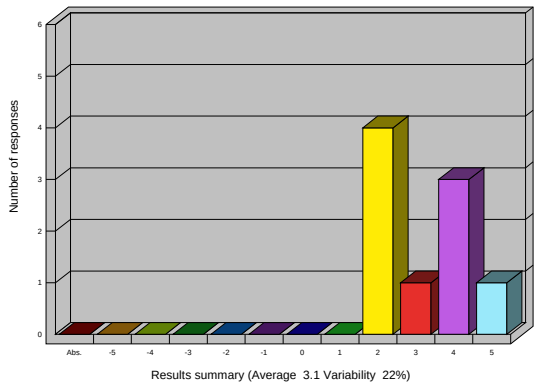
(9 responses)

Form an internal committee to oversee the implement... vs Benefit



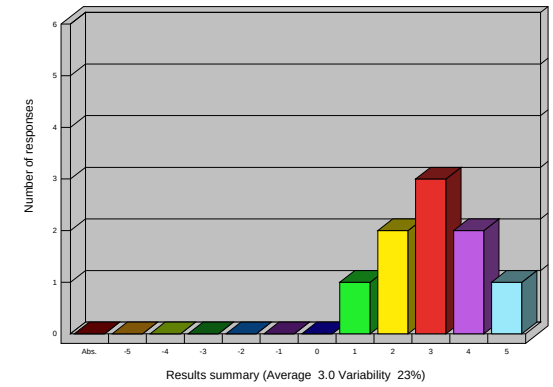
(9 responses)

Replace inefficient pumps or modify how they ar... vs Feasibility



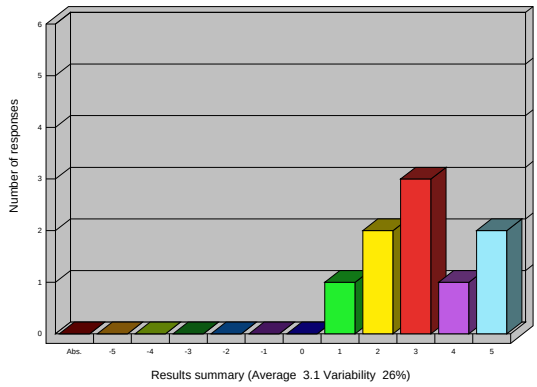
(9 responses)

Invest in "green power," carbon offsets, and/or... vs Feasibility



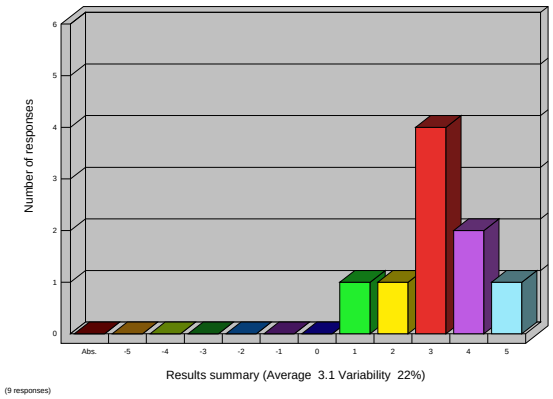
(9 responses)

Replace inefficient pumps or modify how they are us... vs Benefit



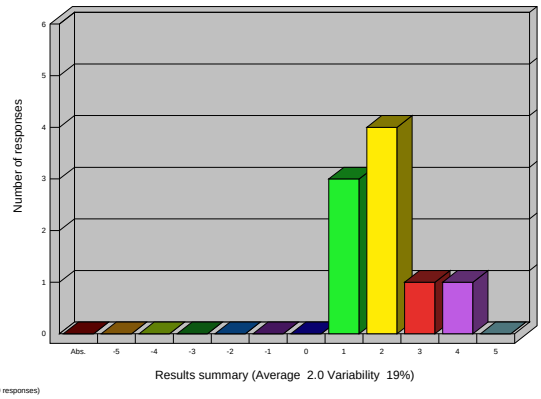
(9 responses)

Promote the installation and use of composting ... vs Feasibility



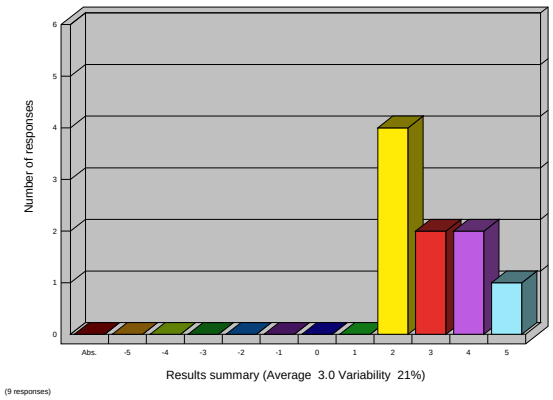
(9 responses)

Assure that software allows screen review of reques... vs Benefit



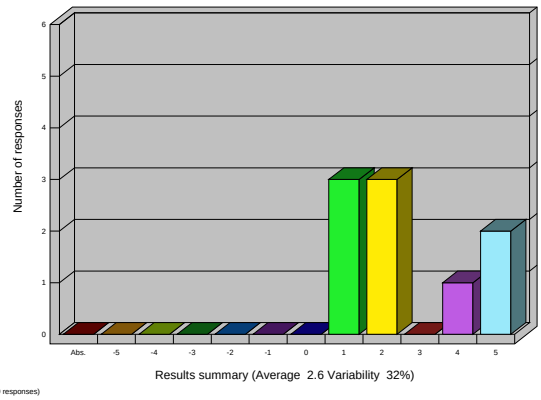
(9 responses)

Promote the installation and use of composting toil... vs Benefit



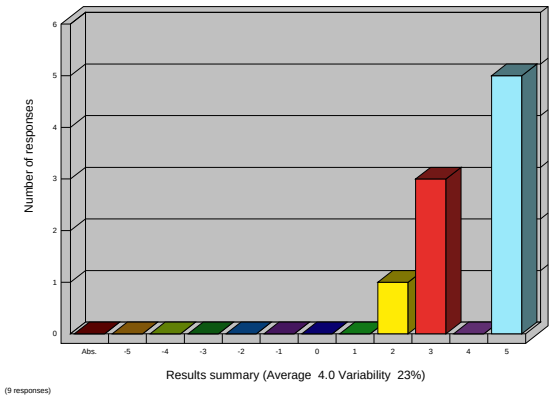
(9 responses)

Prohibit use of public funds for purchase of wa... vs Feasibility



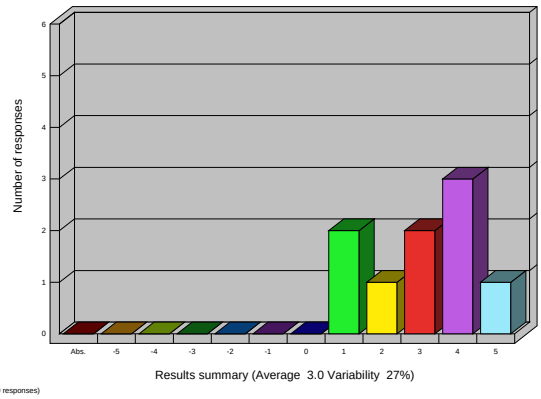
(9 responses)

Assure that software allows screen review of re... vs Feasibility



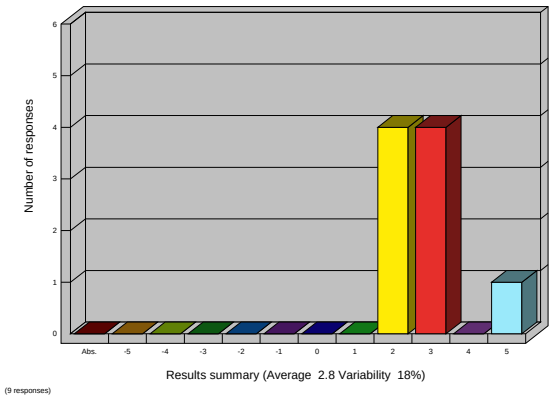
(9 responses)

Prohibit use of public funds for purchase of water ... vs Benefit



(9 responses)

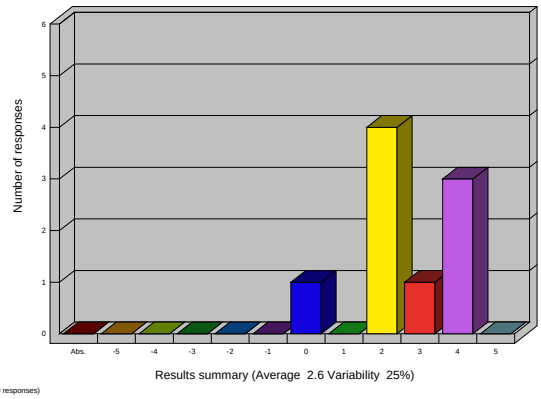
Give bidding preference to contractors who use ... vs Feasibility



Results summary (Average 2.8 Variability 18%)

(9 responses)

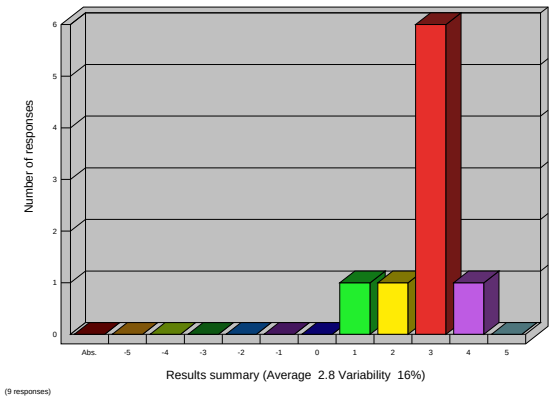
Install heat exchangers at public shower facilities. vs Benefit



Results summary (Average 2.6 Variability 25%)

(9 responses)

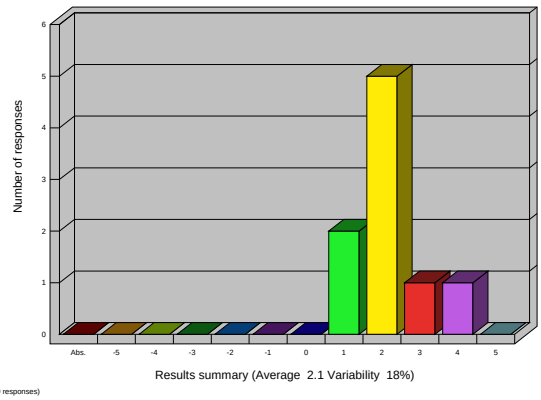
Give bidding preference to contractors who use rene... vs Benefit



Results summary (Average 2.8 Variability 16%)

(9 responses)

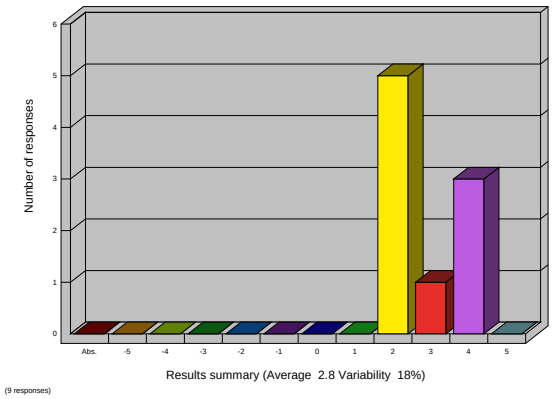
Modify the city potable water system to elimina... vs Feasibility



Results summary (Average 2.1 Variability 18%)

(9 responses)

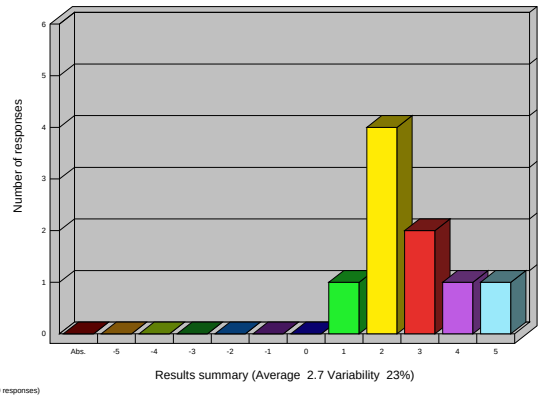
Install heat exchangers at public shower facili... vs Feasibility



Results summary (Average 2.8 Variability 18%)

(9 responses)

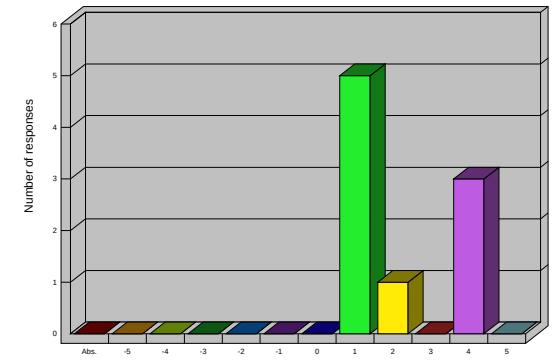
Modify the city potable water system to eliminate n... vs Benefit



Results summary (Average 2.7 Variability 23%)

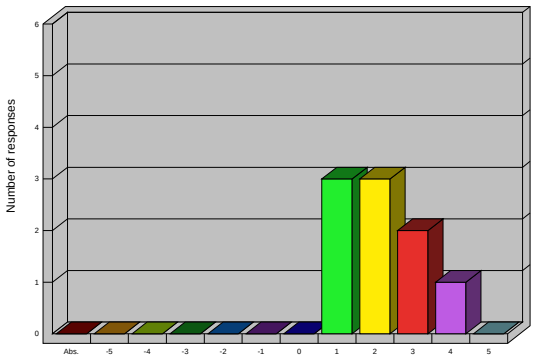
(9 responses)

Prohibit electric vending machines on public pr... vs Feasibility



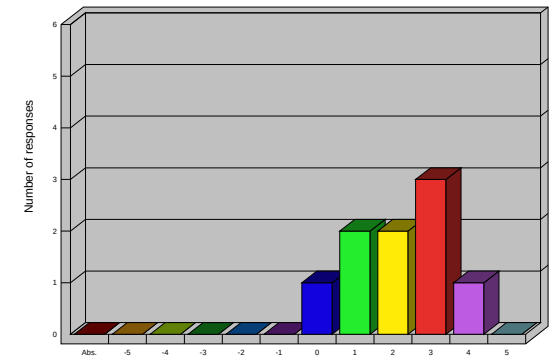
(9 responses)

Eliminate need to transport and store chlorine for ... vs Benefit



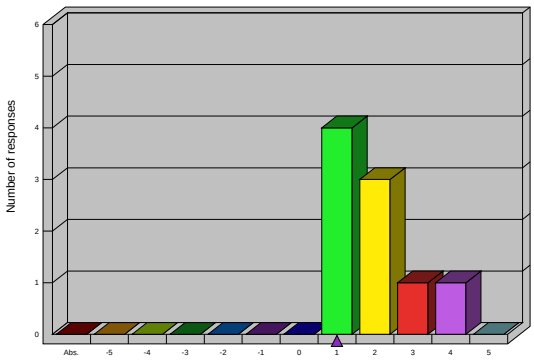
(9 responses)

Prohibit electric vending machines on public property. vs Benefit



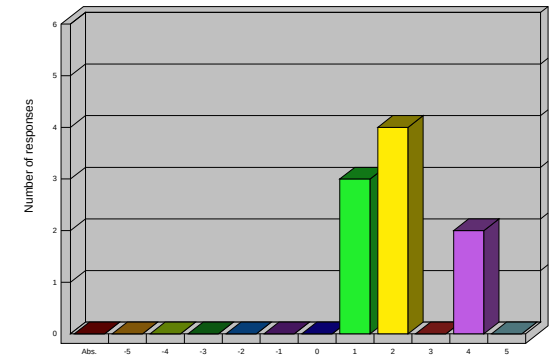
(9 responses)

Celebrate the 4th of July without the use of fi... vs Feasibility



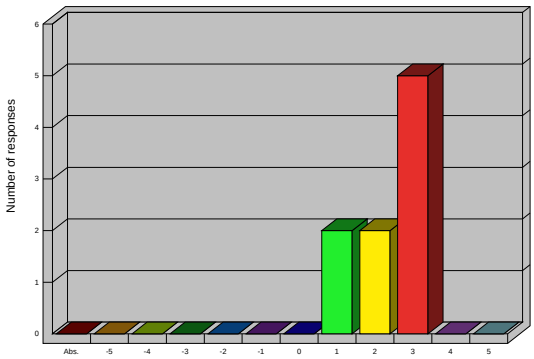
(9 responses)

Eliminate need to transport and store chlorine ... vs Feasibility



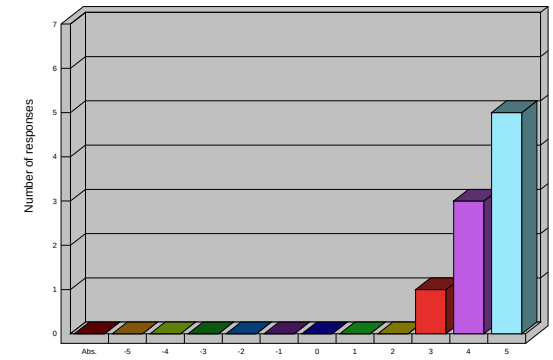
(9 responses)

Celebrate the 4th of July without the use of firewo... vs Benefit



(9 responses)

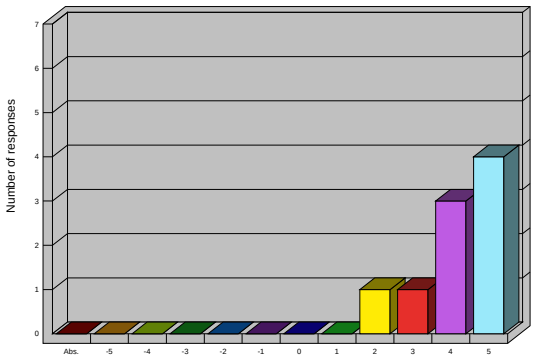
Build all new buildings to at least a LEED Silver c... vs Benefit



Results summary (Average 4.4 Variability 14%)

(9 responses)

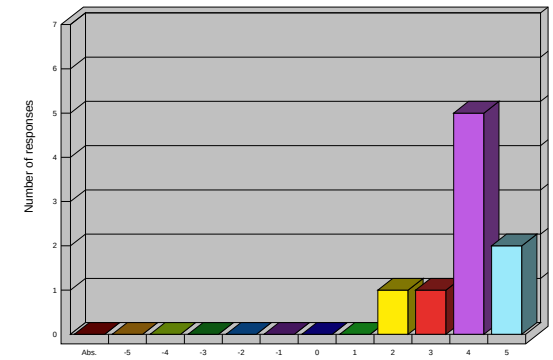
Replace incandescent lights with compact fluore... vs Feasibility



Results summary (Average 4.1 Variability 20%)

(9 responses)

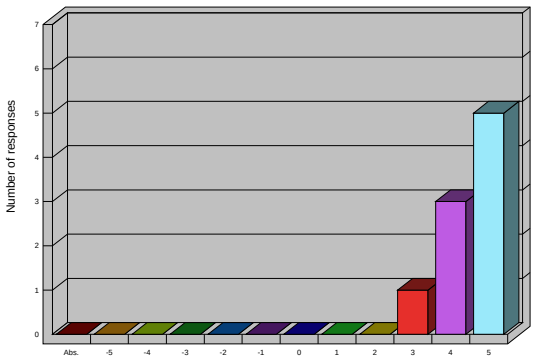
Build all new buildings to at least a LEED Silv... vs Feasibility



Results summary (Average 3.9 Variability 18%)

(9 responses)

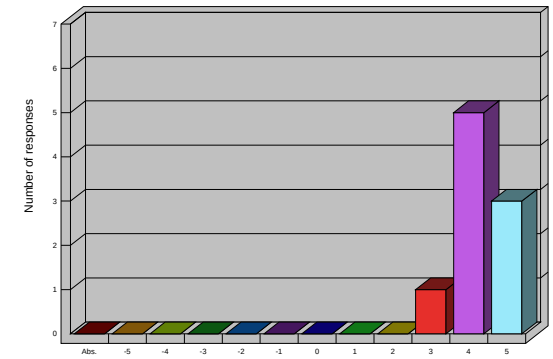
Purchase fuel-efficient and/or alternative-fuel veh... vs Benefit



Results summary (Average 4.4 Variability 14%)

(9 responses)

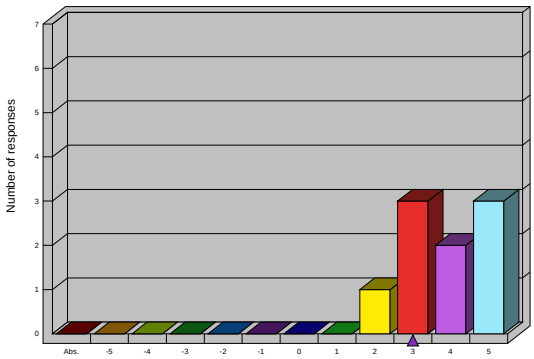
Replace incandescent lights with compact fluorescen... vs Benefit



Results summary (Average 4.2 Variability 13%)

(9 responses)

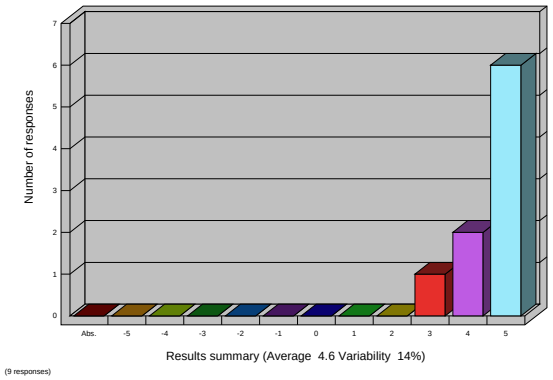
Purchase fuel-efficient and/or alternative-fuel... vs Feasibility



Results summary (Average 3.8 Variability 21%)

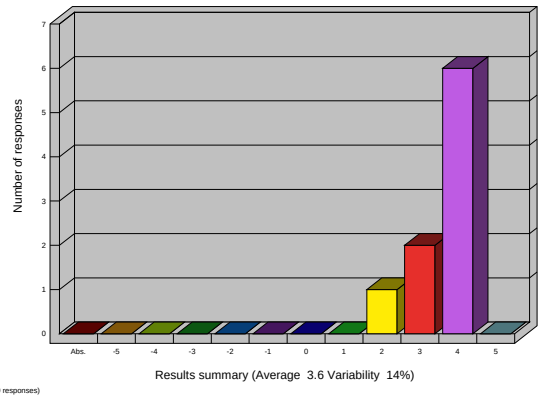
(9 responses)

Renovate existing buildings to lessen energy consum... vs Benefit



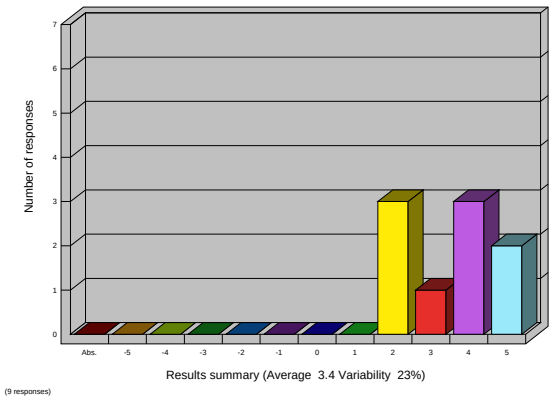
(9 responses)

Phase out low-efficiency and high-emission vehi... vs Feasibility



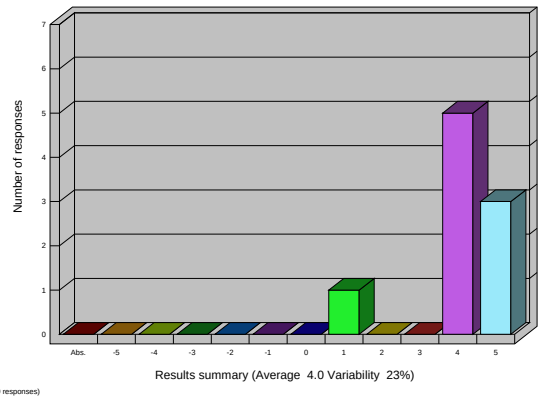
(9 responses)

Renovate existing buildings to lessen energy co... vs Feasibility



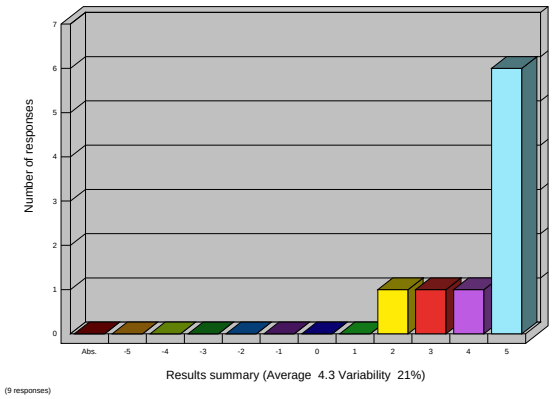
(9 responses)

Use electric-vehicle or bicycles for government fun... vs Benefit



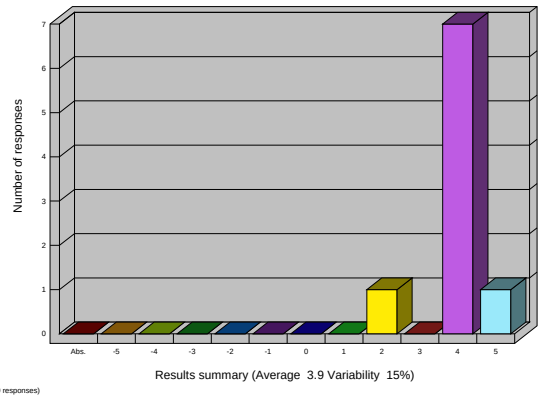
(9 responses)

Phase out low-efficiency and high-emission vehicles... vs Benefit



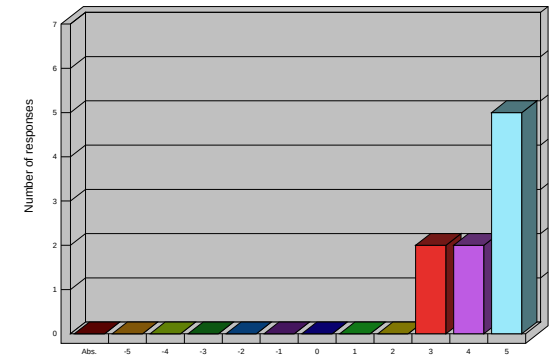
(9 responses)

Use electric-vehicle or bicycles for government... vs Feasibility



(9 responses)

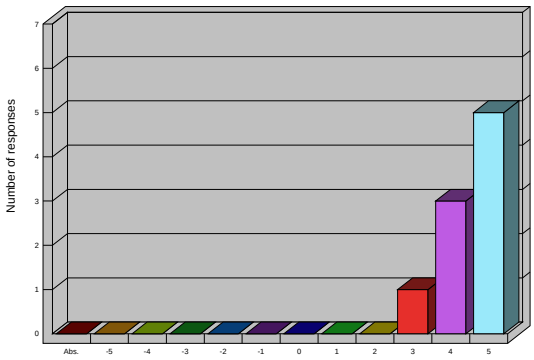
Install high-efficiency furnaces, variable-speed pu... vs Benefit



Results summary (Average 4.3 Variability 16%)

(9 responses)

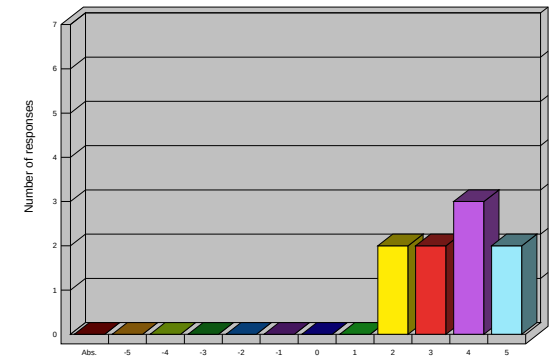
Establish a reduced idling policy for fleet veh... vs Feasibility



Results summary (Average 4.4 Variability 14%)

(9 responses)

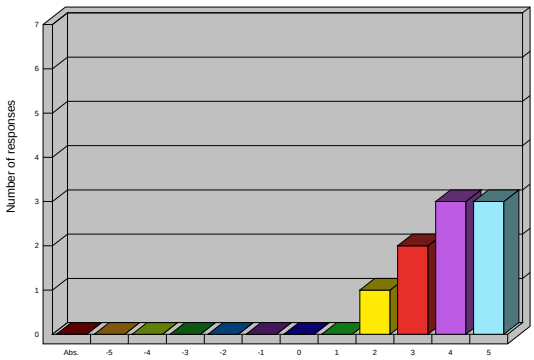
Install high-efficiency furnaces, variable-spee... vs Feasibility



Results summary (Average 3.6 Variability 21%)

(9 responses)

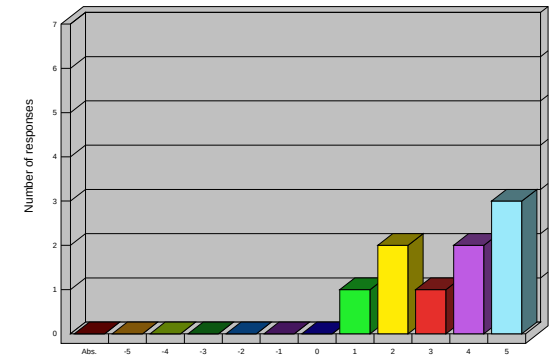
Subsidize bus passes for employees. vs Benefit



Results summary (Average 3.9 Variability 20%)

(9 responses)

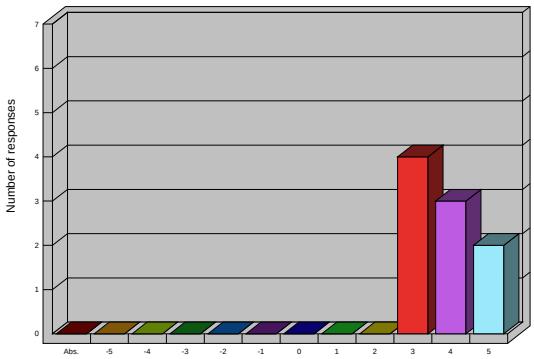
Establish a reduced idling policy for fleet vehicles. vs Benefit



Results summary (Average 3.4 Variability 29%)

(9 responses)

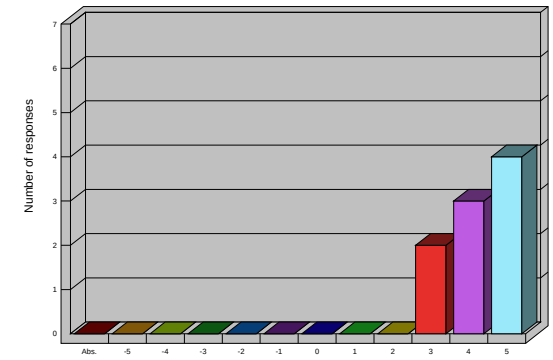
Subsidize bus passes for employees. vs Feasibility



Results summary (Average 3.8 Variability 16%)

(9 responses)

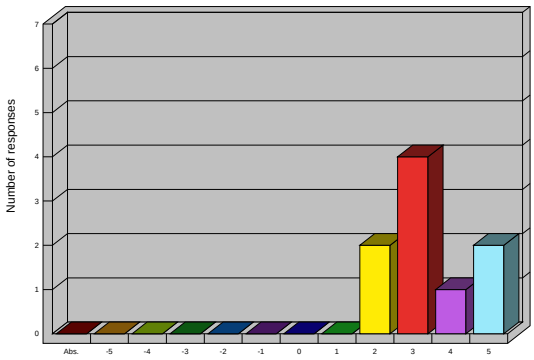
Install photovoltaic panels on existing buildings a... vs Benefit



Results summary (Average 4.2 Variability 16%)

(9 responses)

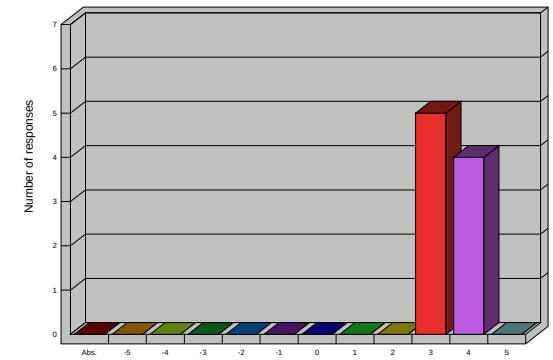
Install heat pumps, air or geothermal, as a fir... vs Feasibility



Results summary (Average 3.3 Variability 21%)

(9 responses)

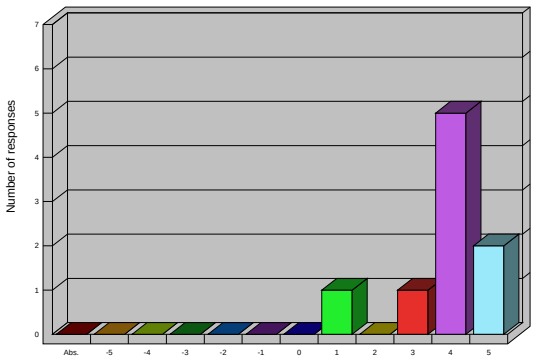
Install photovoltaic panels on existing buildin... vs Feasibility



Results summary (Average 3.4 Variability 10%)

(9 responses)

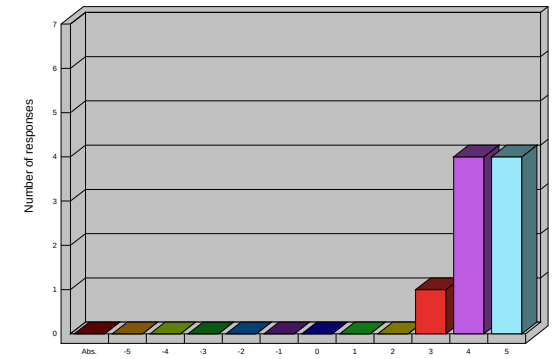
Encourage teleconferencing for meetings. vs Benefit



Results summary (Average 3.8 Variability 23%)

(9 responses)

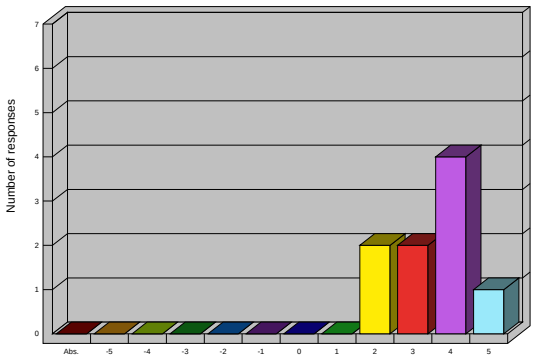
Install heat pumps, air or geothermal, as a first c... vs Benefit



Results summary (Average 4.3 Variability 13%)

(9 responses)

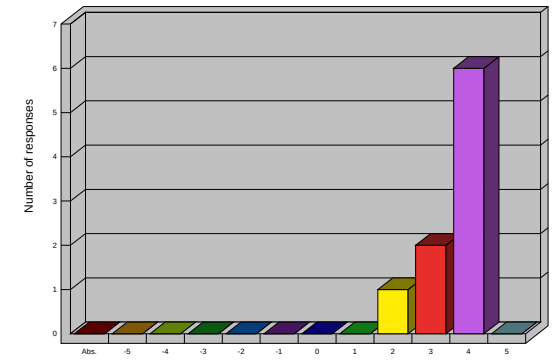
Encourage teleconferencing for meetings. vs Feasibility



Results summary (Average 3.4 Variability 19%)

(9 responses)

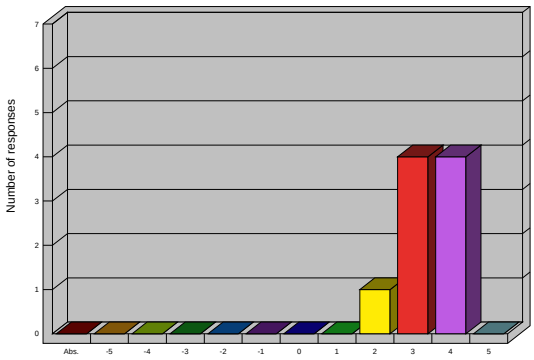
Develop alternative work schedules for employees, i... vs Benefit



Results summary (Average 3.6 Variability 14%)

(9 responses)

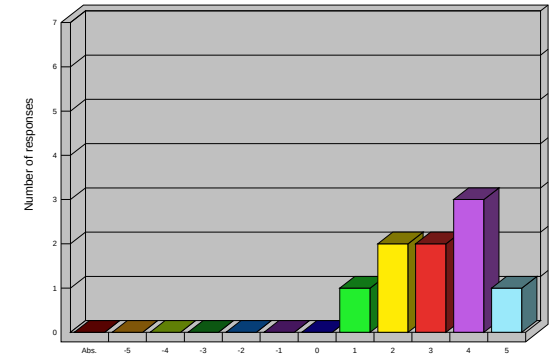
Develop policies for inter-departmental car sha... vs Feasibility



Results summary (Average 3.3 Variability 13%)

(9 responses)

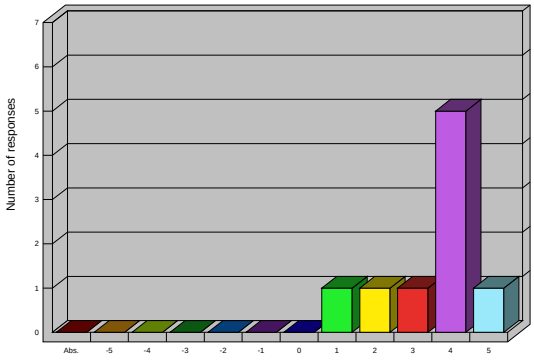
Develop alternative work schedules for employee... vs Feasibility



Results summary (Average 3.1 Variability 24%)

(9 responses)

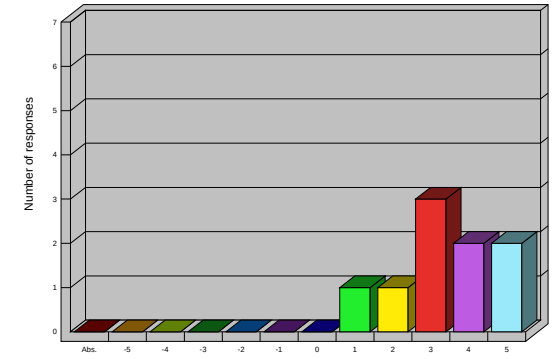
Subsidize vanpools for employees if deemed cost eff... vs Benefit



Results summary (Average 3.4 Variability 23%)

(9 responses)

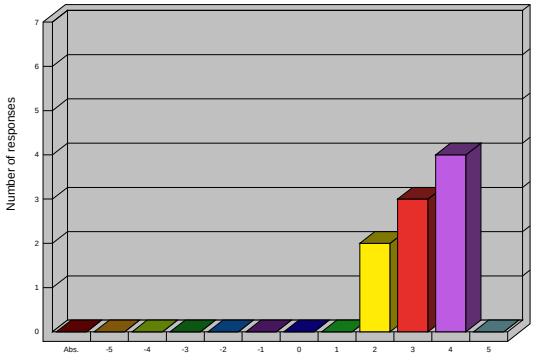
Develop policies for inter-departmental car sharing... vs Benefit



Results summary (Average 3.3 Variability 25%)

(9 responses)

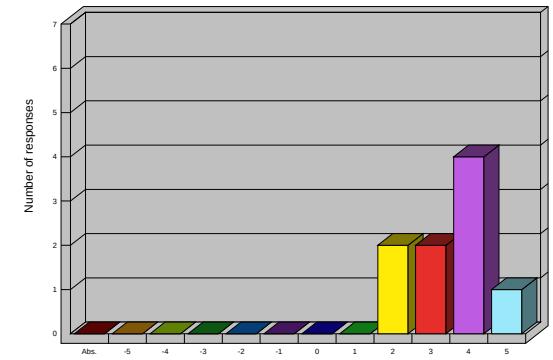
Subsidize vanpools for employees if deemed cost... vs Feasibility



Results summary (Average 3.2 Variability 16%)

(9 responses)

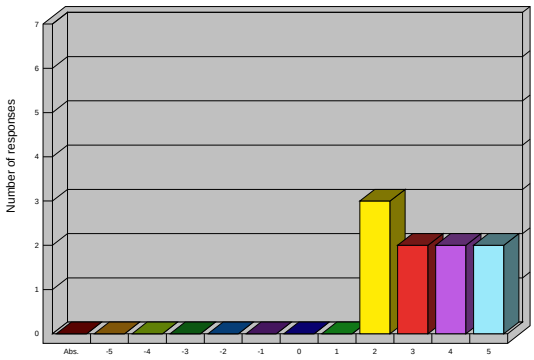
Perform regular route-efficiency analyses for routi... vs Benefit



Results summary (Average 3.4 Variability 19%)

(9 responses)

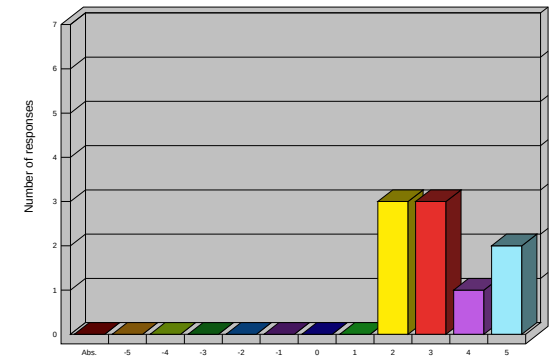
Encourage telecommuting for employees. vs Feasibility



Results summary (Average 3.3 Variability 23%)

(9 responses)

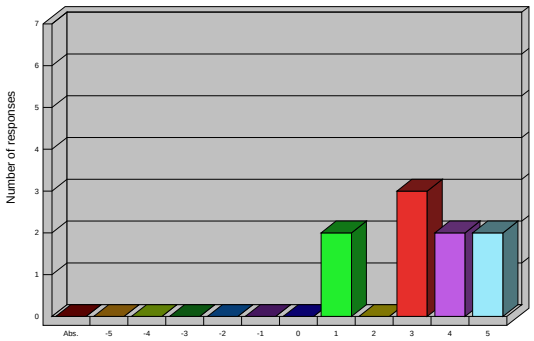
Perform regular route-efficiency analyses for r... vs Feasibility



Results summary (Average 3.2 Variability 23%)

(9 responses)

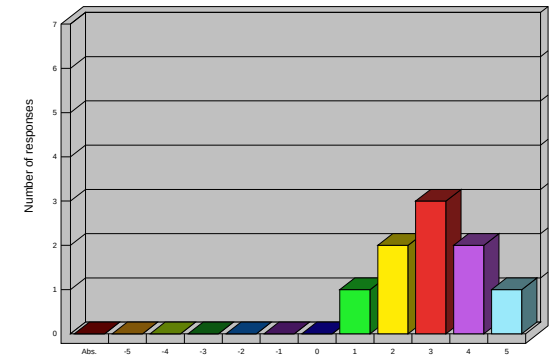
Support the development of an energy-efficient comm... vs Benefit



Results summary (Average 3.2 Variability 28%)

(9 responses)

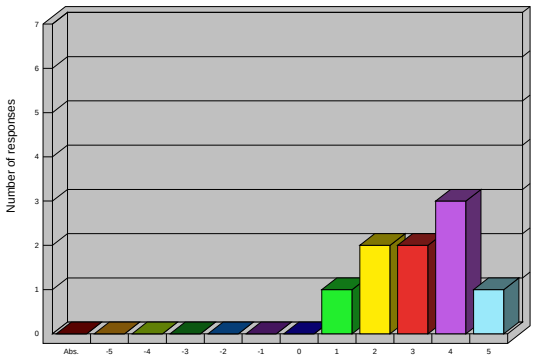
Encourage telecommuting for employees. vs Benefit



Results summary (Average 3.0 Variability 23%)

(9 responses)

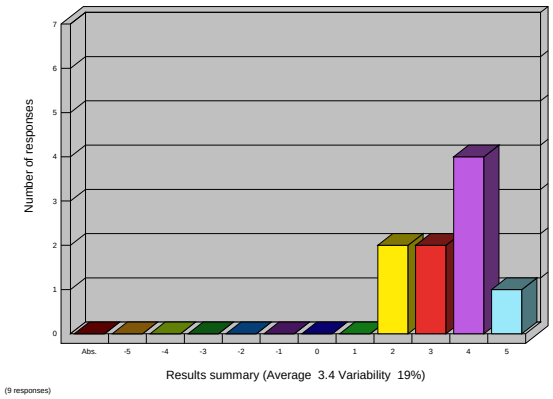
Support the development of an energy-efficient ... vs Feasibility



Results summary (Average 3.1 Variability 24%)

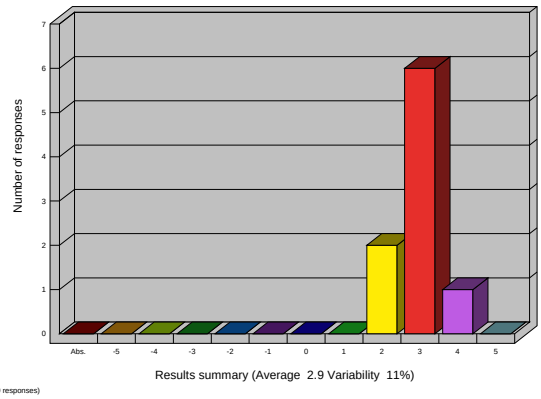
(9 responses)

Install wind turbines on public property, where app... vs Benefit



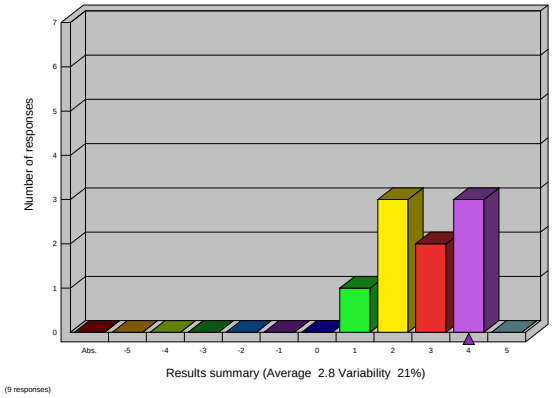
(9 responses)

Adjust shipping schedules and capacities to red... vs Feasibility



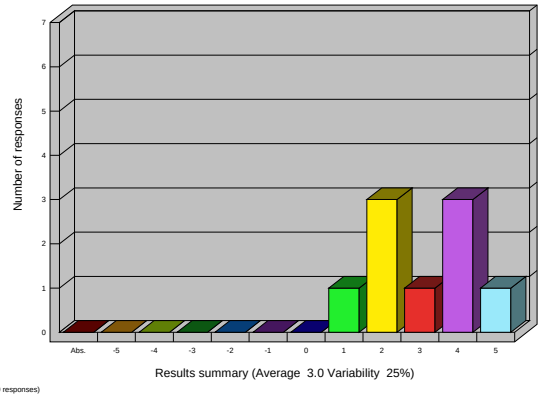
(9 responses)

Install wind turbines on public property, where... vs Feasibility



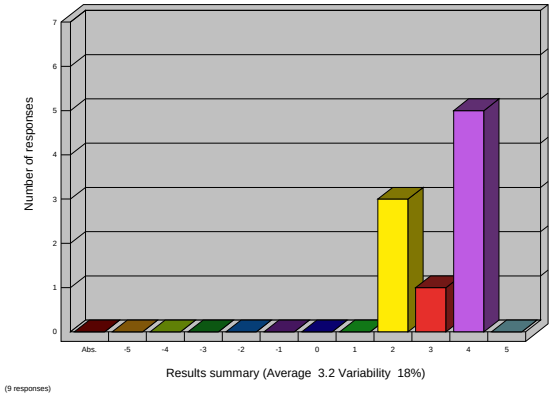
(9 responses)

Install roundabouts rather than new traffic signals... vs Benefit



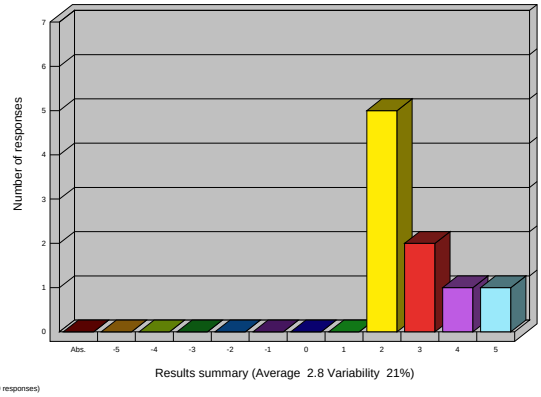
(9 responses)

Adjust shipping schedules and capacities to reduce ... vs Benefit



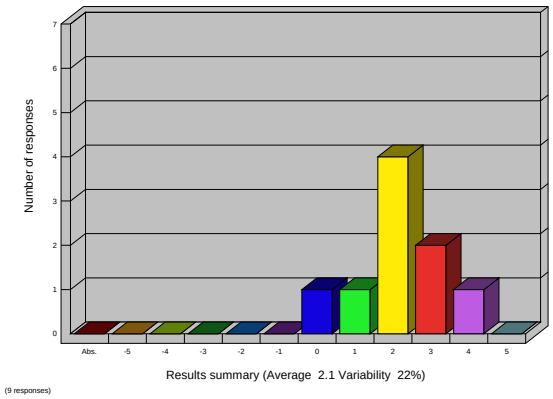
(9 responses)

Install roundabouts rather than new traffic sig... vs Feasibility



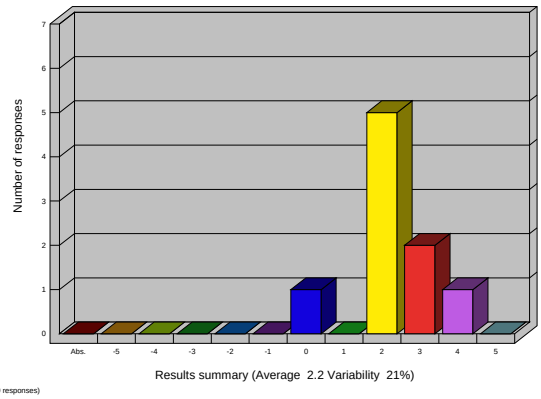
(9 responses)

Educate employee unions to the need for more effici... vs Benefit



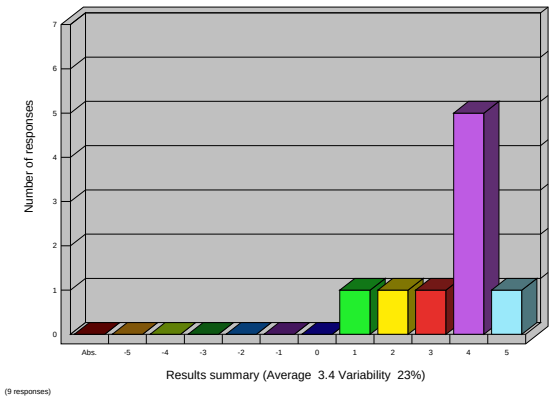
(9 responses)

Have local neighborhoods adopt local parks to r... vs Feasibility



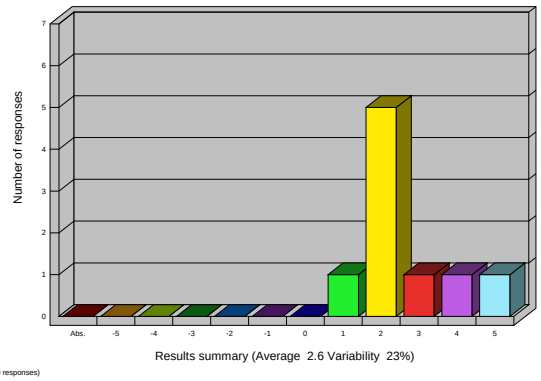
(9 responses)

Educate employee unions to the need for more ef... vs Feasibility



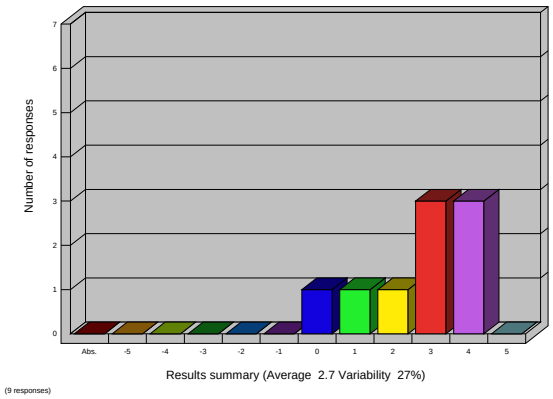
(9 responses)

Replace mowers with grazing animals for park lawn m... vs Benefit



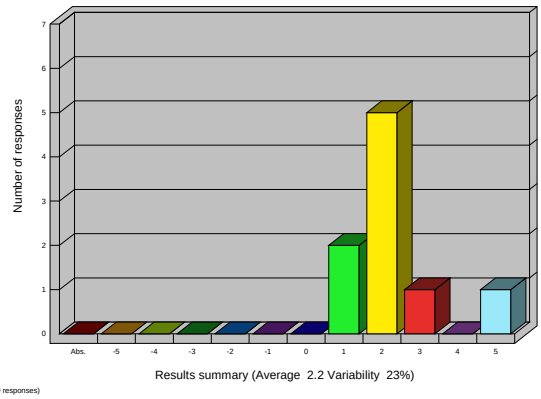
(9 responses)

Have local neighborhoods adopt local parks to reduc... vs Benefit



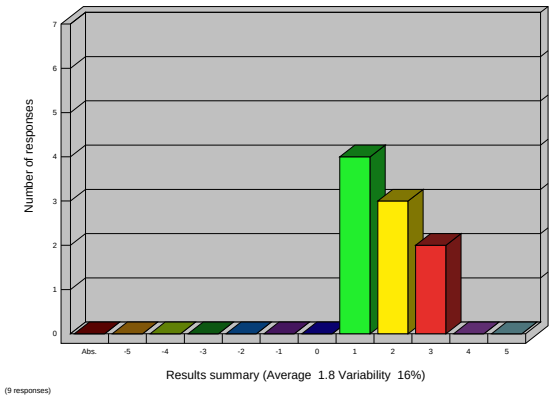
(9 responses)

Replace mowers with grazing animals for park la... vs Feasibility



(9 responses)

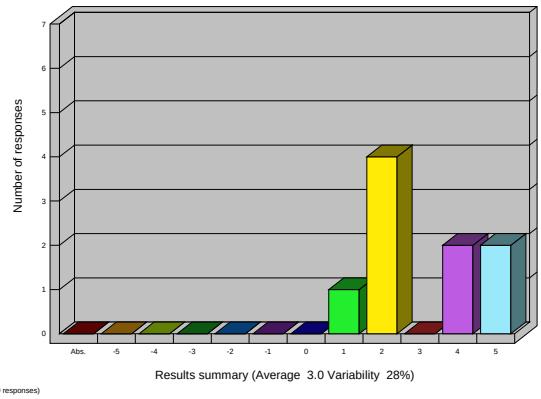
Reduce mowing of grass in parks. vs Benefit



Results summary (Average 1.8 Variability 16%)

(9 responses)

Reduce mowing of grass in parks. vs Feasibility

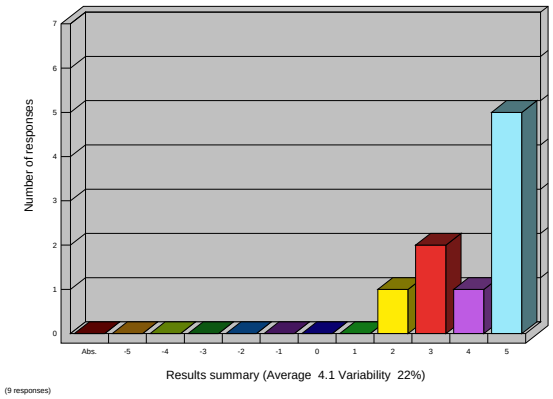


Results summary (Average 3.0 Variability 28%)

(9 responses)

Section 2 Graphs

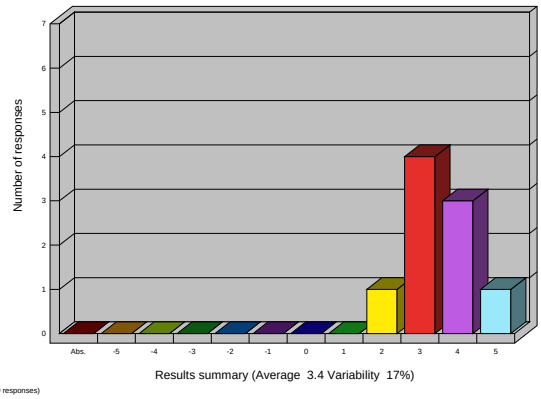
Develop a Smart Trips program to promote public tra... vs Benefit



Results summary (Average 4.1 Variability 22%)

(9 responses)

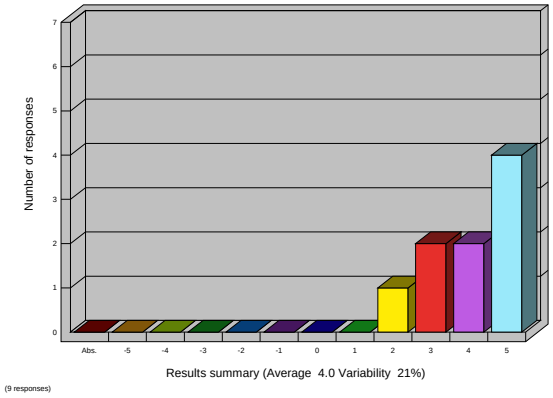
Increase funding for public transportation. vs Feasibility



Results summary (Average 3.4 Variability 17%)

(9 responses)

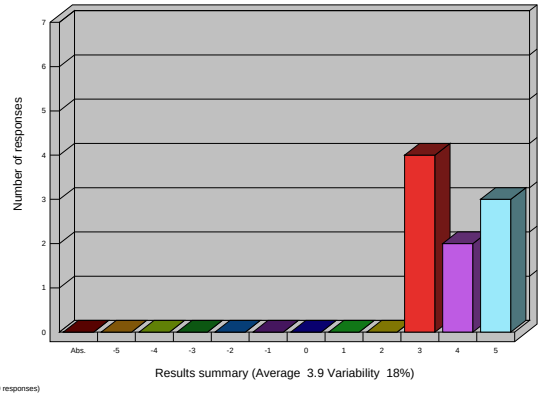
Develop a Smart Trips program to promote public... vs Feasibility



Results summary (Average 4.0 Variability 21%)

(9 responses)

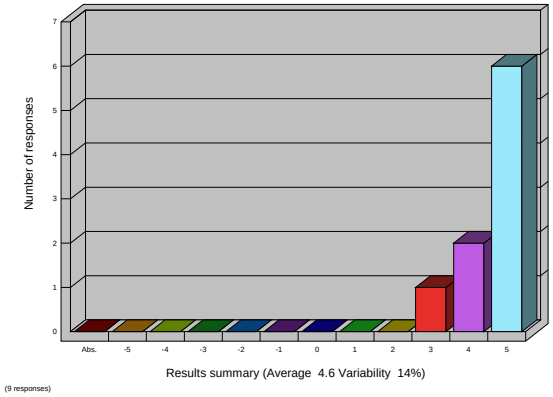
Develop a commuter-friendly transit plan and increa... vs Benefit



Results summary (Average 3.9 Variability 18%)

(9 responses)

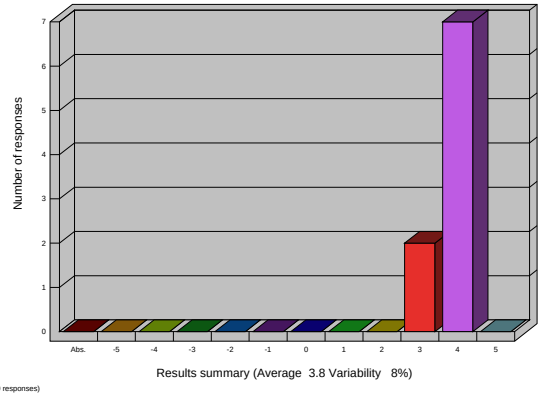
Increase funding for public transportation. vs Benefit



Results summary (Average 4.6 Variability 14%)

(9 responses)

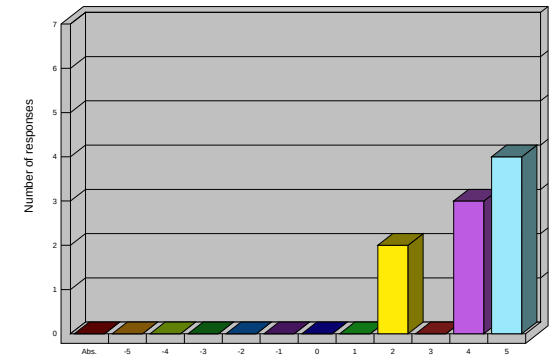
Develop a commuter-friendly transit plan and in... vs Feasibility



Results summary (Average 3.8 Variability 8%)

(9 responses)

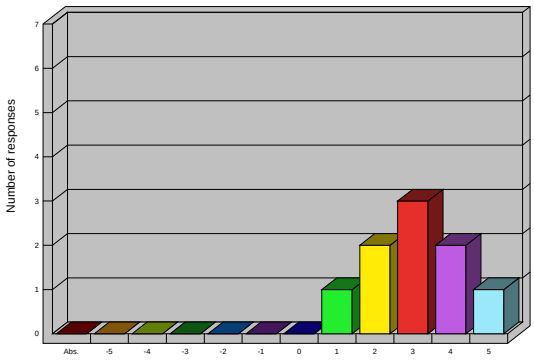
Promote use of fuel efficient, alternative-fuel and... vs Benefit



Results summary (Average 4.0 Variability 23%)

(9 responses)

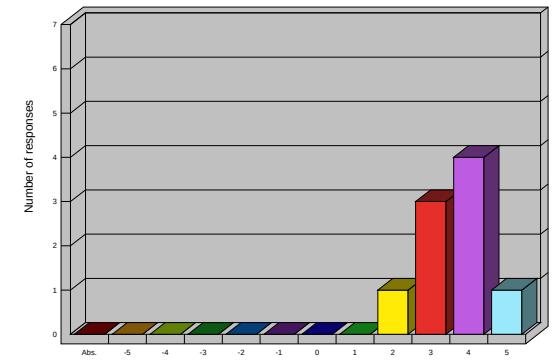
Provide electric vehicle recharging stations at... vs Feasibility



Results summary (Average 3.0 Variability 23%)

(9 responses)

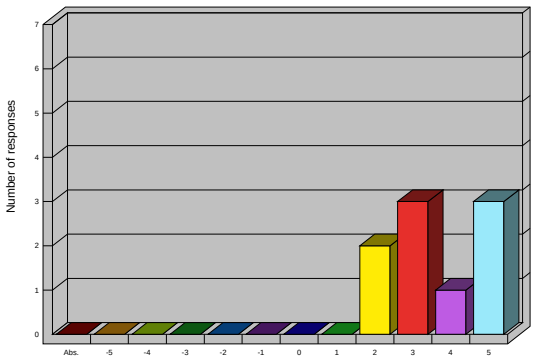
Promote use of fuel efficient, alternative-fuel... vs Feasibility



Results summary (Average 3.6 Variability 17%)

(9 responses)

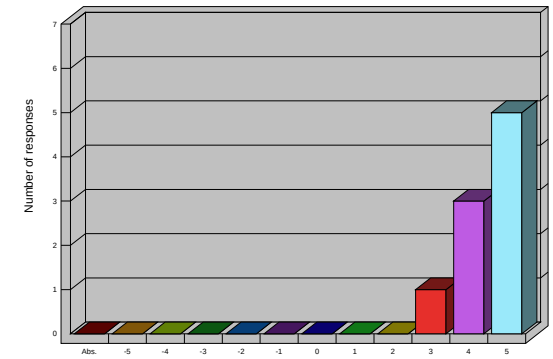
Increase bicycle-carrying capacity of buses by prom... vs Benefit



Results summary (Average 3.6 Variability 23%)

(9 responses)

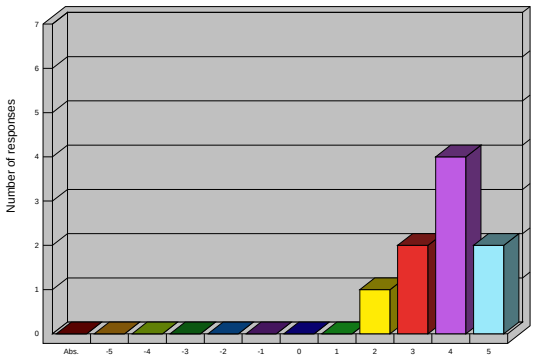
Provide electric vehicle recharging stations at gov... vs Benefit



Results summary (Average 4.4 Variability 14%)

(9 responses)

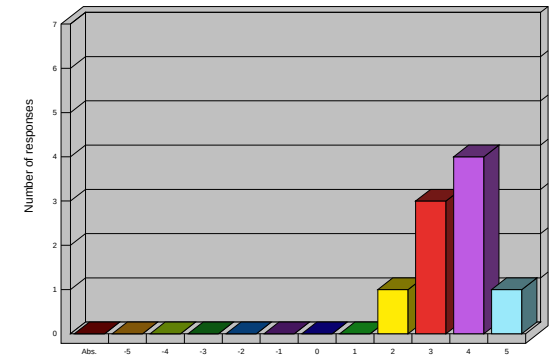
Increase bicycle-carrying capacity of buses by ... vs Feasibility



Results summary (Average 3.8 Variability 18%)

(9 responses)

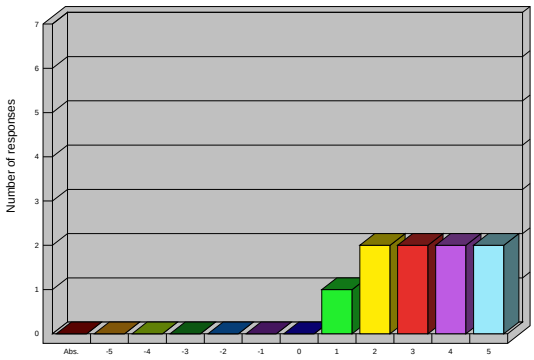
Implement existing City non-motorized transportatio... vs Benefit



Results summary (Average 3.6 Variability 17%)

(9 responses)

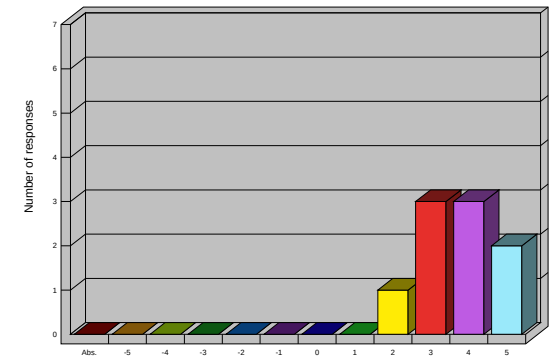
Build "complete streets" (including facilities ... vs Feasibility



Results summary (Average 3.2 Variability 26%)

(9 responses)

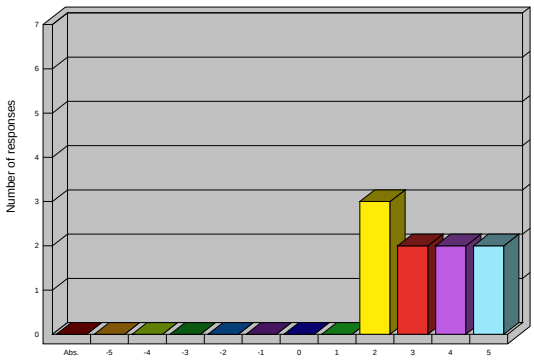
Implement existing City non-motorized transport... vs Feasibility



Results summary (Average 3.7 Variability 19%)

(9 responses)

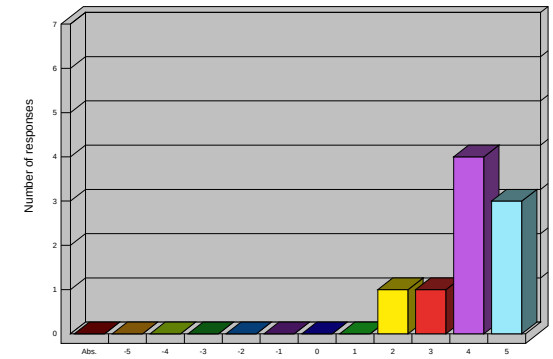
Adopt reduced-idling ordinance. vs Benefit



Results summary (Average 3.3 Variability 23%)

(9 responses)

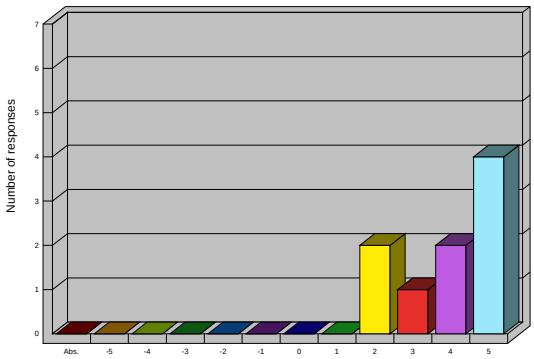
Build "complete streets" (including facilities for ... vs Benefit



Results summary (Average 4.0 Variability 19%)

(9 responses)

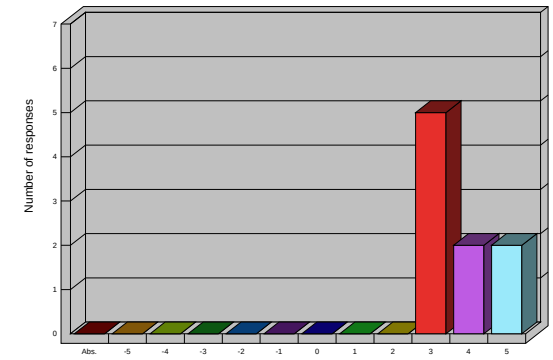
Adopt reduced-idling ordinance. vs Feasibility



Results summary (Average 3.9 Variability 24%)

(9 responses)

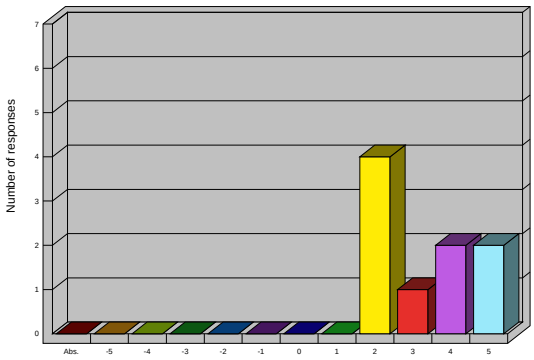
Develop a bounty for retiring a high-emission vehicle. vs Benefit



Results summary (Average 3.7 Variability 16%)

(9 responses)

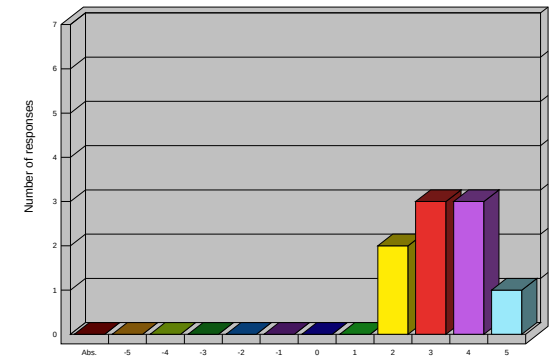
Institute parking fees in commercial centers, t... vs Feasibility



Results summary (Average 3.2 Variability 25%)

(9 responses)

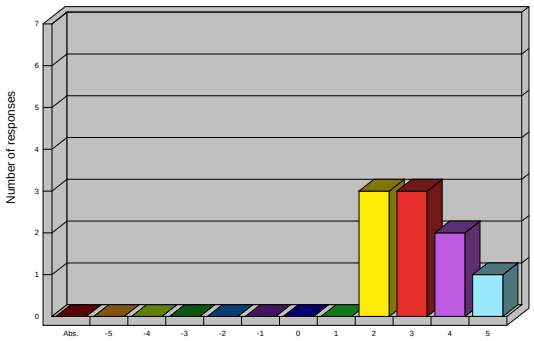
Develop a bounty for retiring a high-emission v... vs Feasibility



Results summary (Average 3.3 Variability 19%)

(9 responses)

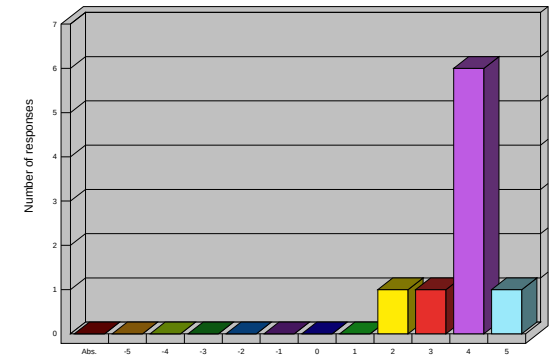
Develop a comprehensive county-wide bicycle and ped... vs Benefit



Results summary (Average 3.1 Variability 20%)

(9 responses)

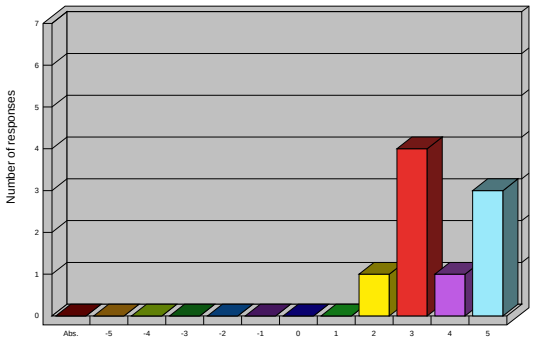
Institute parking fees in commercial centers, to en... vs Benefit



Results summary (Average 3.8 Variability 16%)

(9 responses)

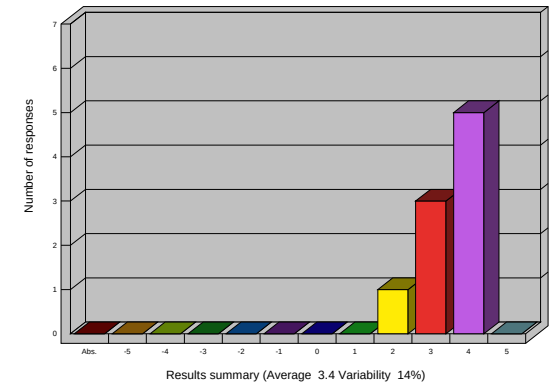
Develop a comprehensive county-wide bicycle and... vs Feasibility



Results summary (Average 3.7 Variability 21%)

(9 responses)

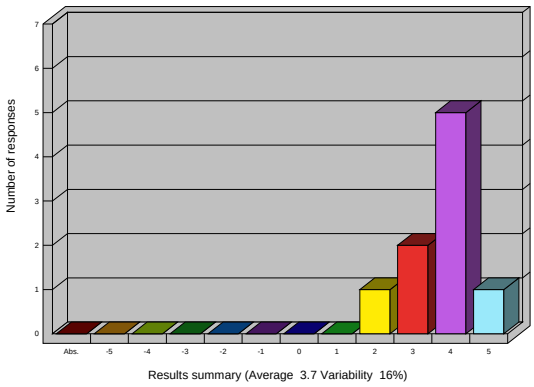
Establish a low-interest loan program for private i... vs Benefit



Results summary (Average 3.4 Variability 14%)

(9 responses)

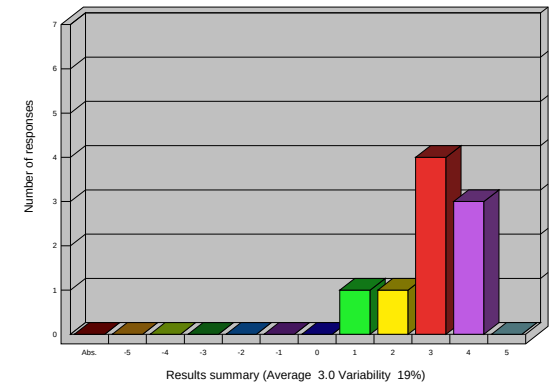
Establish and consistently enforce policies for... vs Feasibility



Results summary (Average 3.7 Variability 16%)

(9 responses)

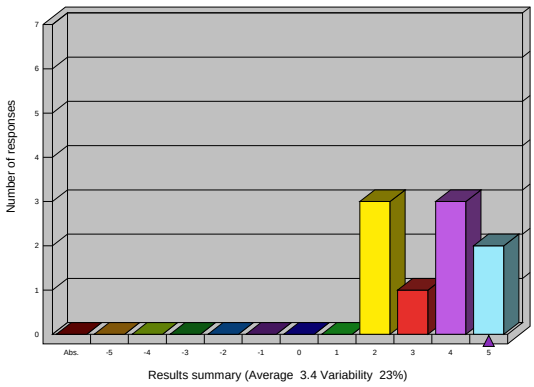
Establish a low-interest loan program for priva... vs Feasibility



Results summary (Average 3.0 Variability 19%)

(9 responses)

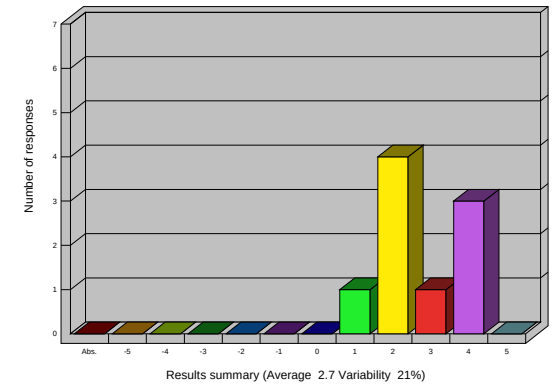
Implement a car/truck-sharing service. vs Benefit



Results summary (Average 3.4 Variability 23%)

(9 responses)

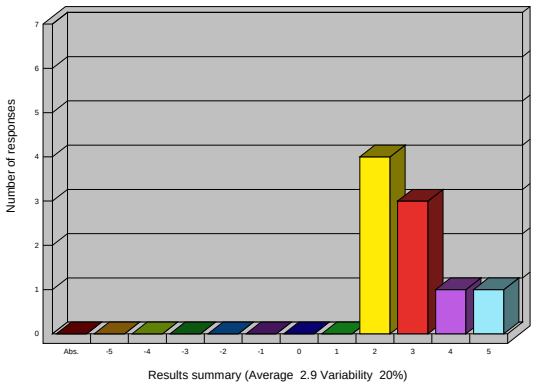
Establish and consistently enforce policies for bic... vs Benefit



Results summary (Average 2.7 Variability 21%)

(9 responses)

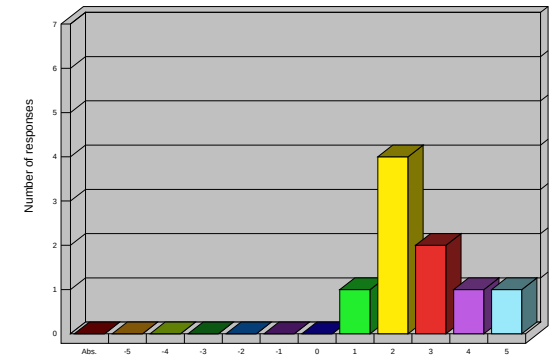
Implement a car/truck-sharing service. vs Feasibility



Results summary (Average 2.9 Variability 20%)

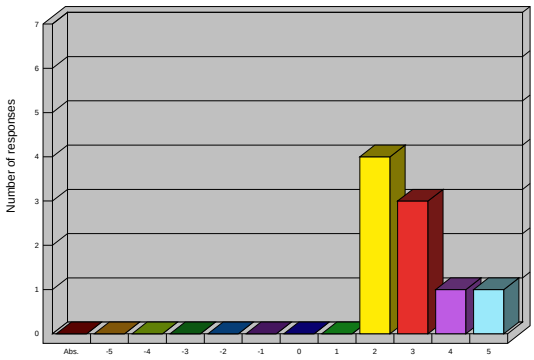
(9 responses)

Provide covered bicycle parking at commercial, scho... vs Benefit



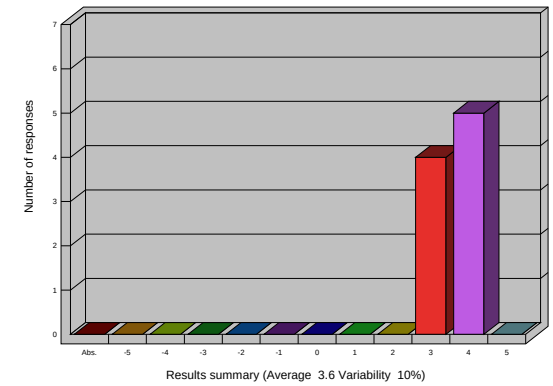
(9 responses)

Use parking fees to discourage single occupancy... vs Feasibility



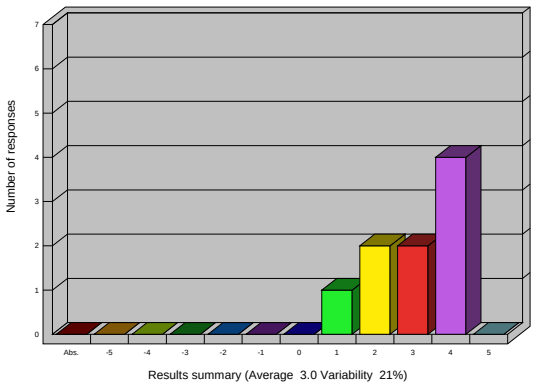
(9 responses)

Provide covered bicycle parking at commercial, ... vs Feasibility



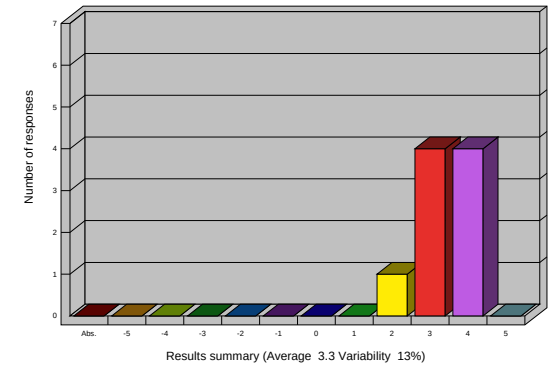
(9 responses)

Tax parking areas as part of the "land improvements... vs Benefit



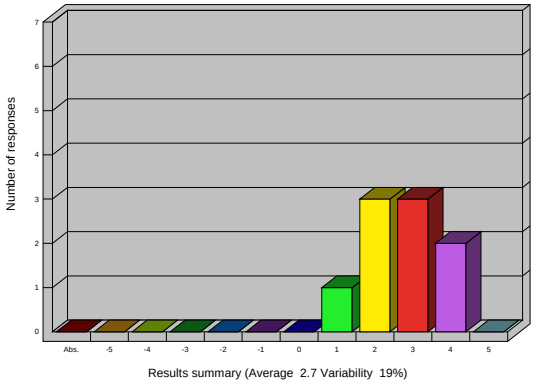
(9 responses)

Use parking fees to discourage single occupancy veh... vs Benefit



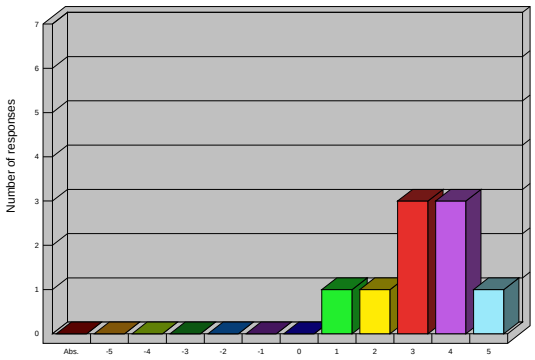
(9 responses)

Tax parking areas as part of the "land improvem... vs Feasibility



(9 responses)

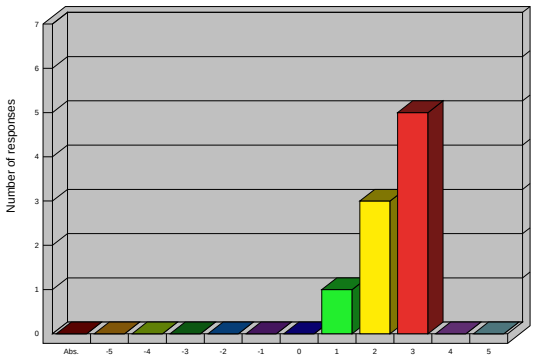
Retrofit diesel trucks with emission-reducing devices, vs Benefit



Results summary (Average 3.2 Variability 23%)

(9 responses)

Retrofit diesel trucks with emission-reducing d... vs Feasibility

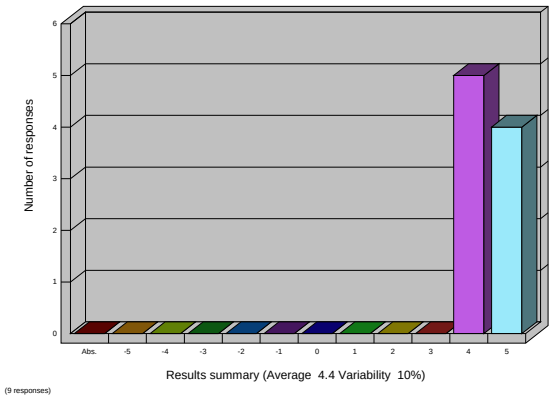


Results summary (Average 2.4 Variability 14%)

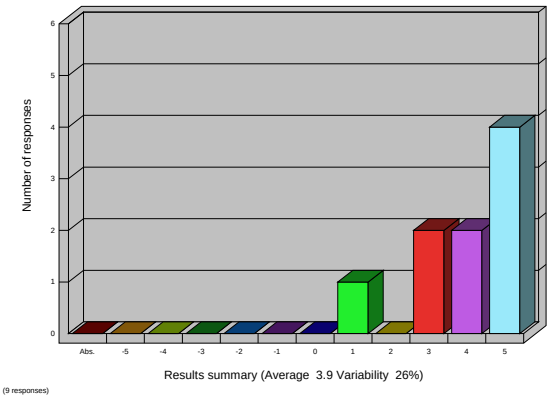
(9 responses)

Section 3 Graphs

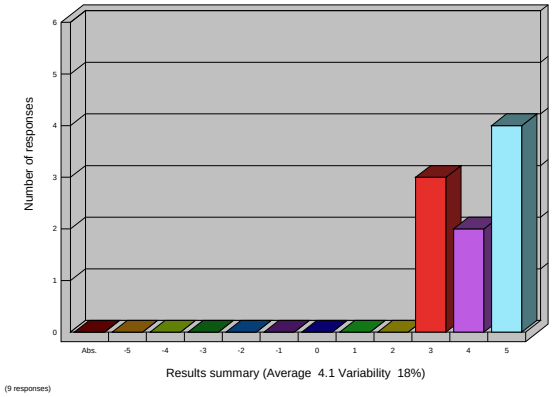
Provide incentives for installation of solar-photov... vs Benefit



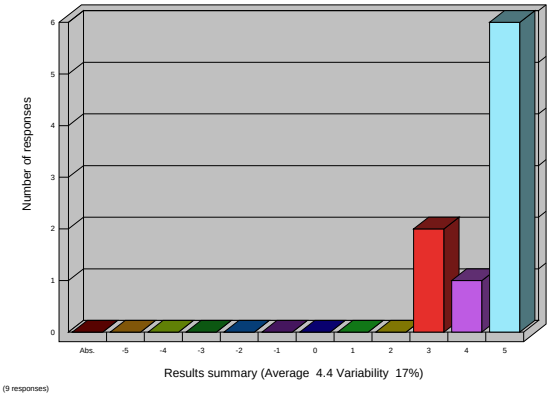
Establish a low-interest loan program for priva... vs Feasibility



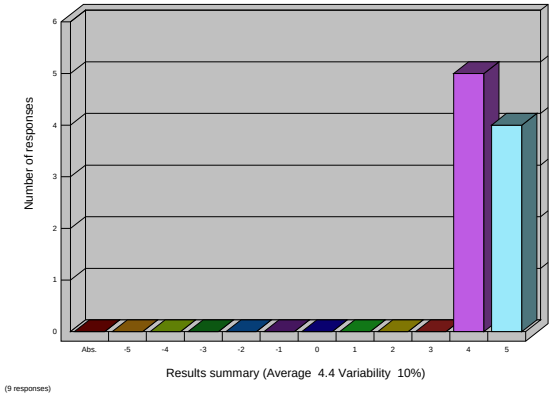
Provide incentives for installation of solar-ph... vs Feasibility



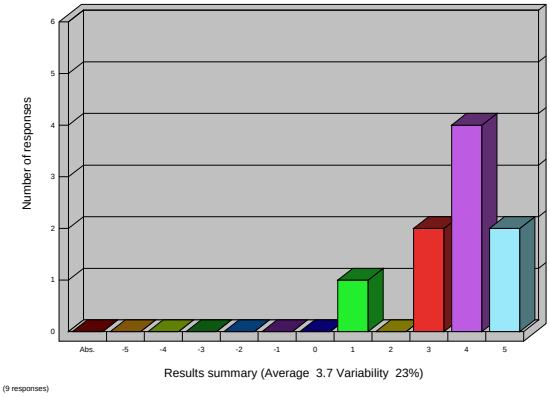
Require use of a standardized green-building point-... vs Benefit



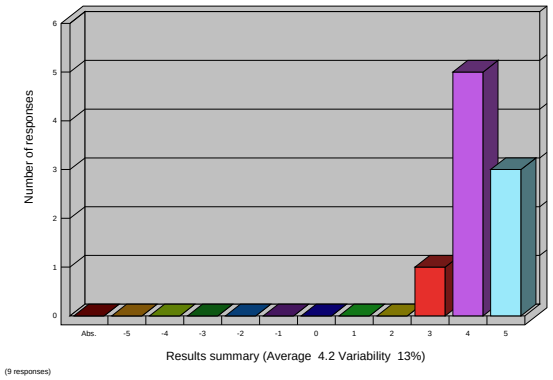
Establish a low-interest loan program for private i... vs Benefit



Require use of a standardized green-building po... vs Feasibility



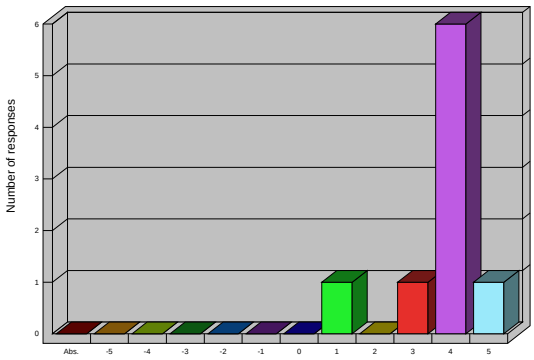
Expand home-weatherization assistance programs for ... vs Benefit



Results summary (Average 4.2 Variability 13%)

(9 responses)

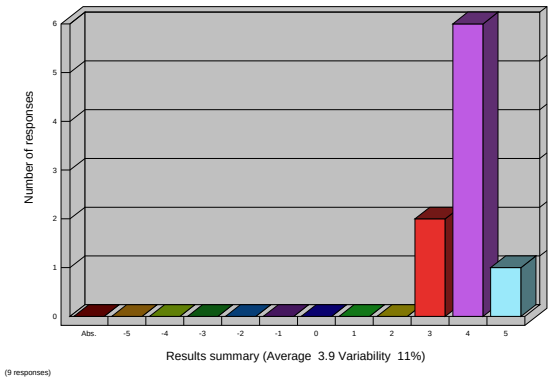
Revise building codes to require greater insula... vs Feasibility



Results summary (Average 3.7 Variability 21%)

(9 responses)

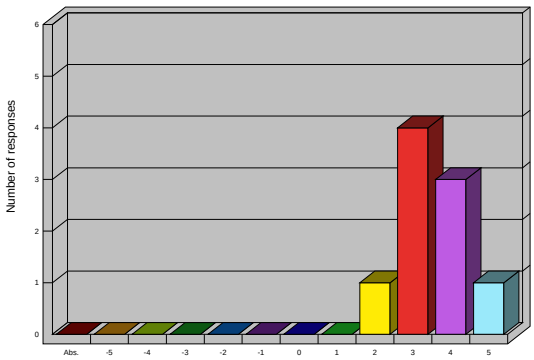
Expand home-weatherization assistance programs ... vs Feasibility



Results summary (Average 3.9 Variability 11%)

(9 responses)

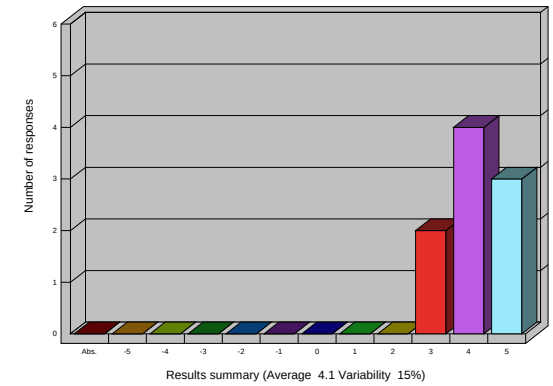
Encourage use of motion sensors for outdoor lighting. vs Benefit



Results summary (Average 3.4 Variability 17%)

(9 responses)

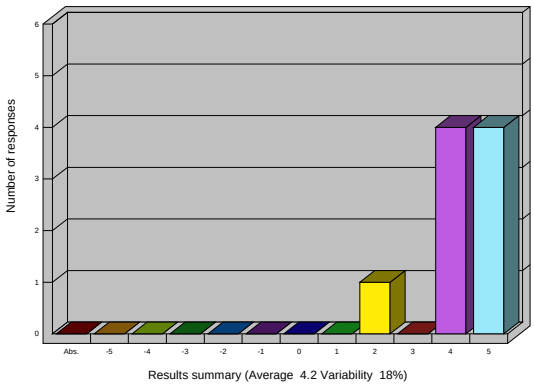
Revise building codes to require greater insulation. vs Benefit



Results summary (Average 4.1 Variability 15%)

(9 responses)

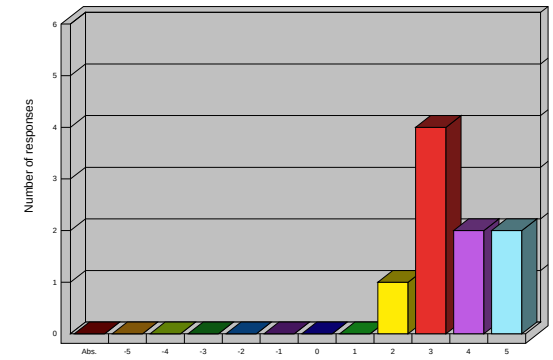
Encourage use of motion sensors for outdoor lig... vs Feasibility



Results summary (Average 4.2 Variability 18%)

(9 responses)

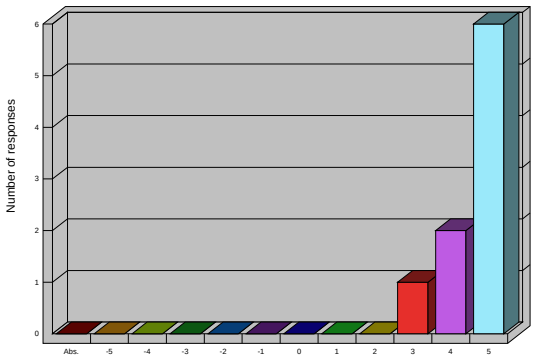
Reduce total number of streetlights. vs Benefit



Results summary (Average 3.6 Variability 19%)

(9 responses)

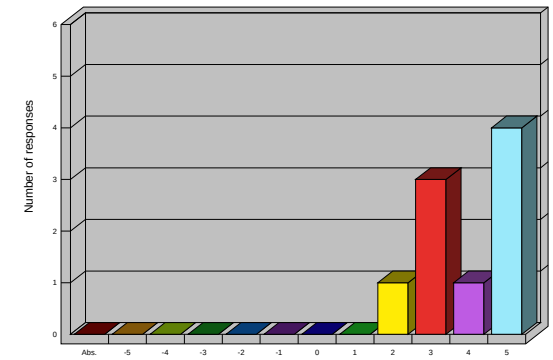
Distribute "green building" advice booklets. vs Feasibility



Results summary (Average 4.6 Variability 14%)

(9 responses)

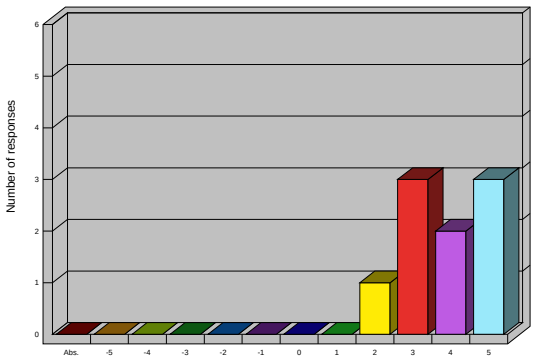
Reduce total number of streetlights. vs Feasibility



Results summary (Average 3.9 Variability 22%)

(9 responses)

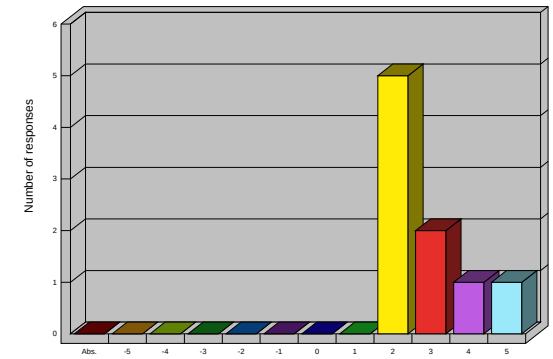
Use energy-saving lamps (e.g., led) for outdoor lig... vs Benefit



Results summary (Average 3.8 Variability 21%)

(9 responses)

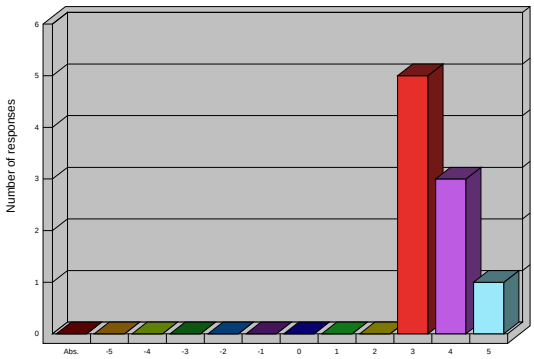
Distribute "green building" advice booklets. vs Benefit



Results summary (Average 2.8 Variability 21%)

(9 responses)

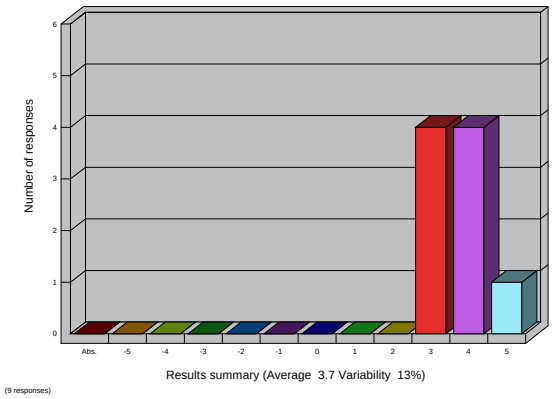
Use energy-saving lamps (e.g., led) for outdoor... vs Feasibility



Results summary (Average 3.6 Variability 14%)

(9 responses)

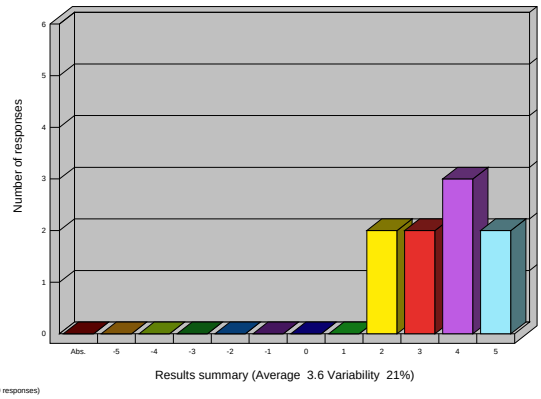
Promote energy auditing in homes and businesses. vs Benefit



Results summary (Average 3.7 Variability 13%)

(9 responses)

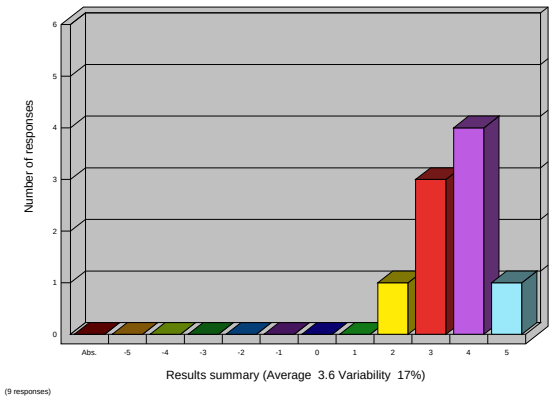
Eliminate unnecessary or overly bright outdoor ... vs Feasibility



Results summary (Average 3.6 Variability 21%)

(9 responses)

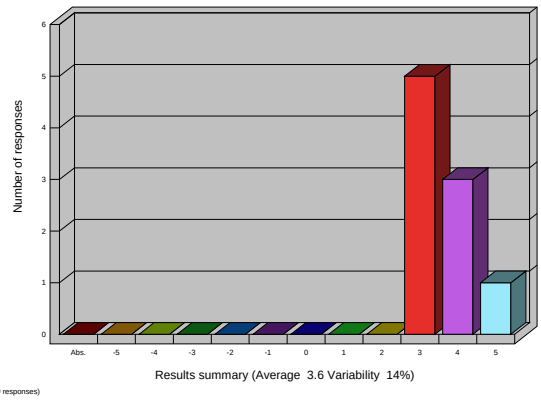
Promote energy auditing in homes and businesses. vs Feasibility



Results summary (Average 3.6 Variability 17%)

(9 responses)

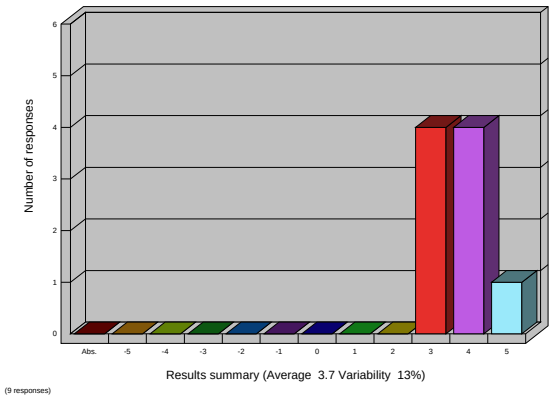
Require sellers to provide current energy audit inf... vs Benefit



Results summary (Average 3.6 Variability 14%)

(9 responses)

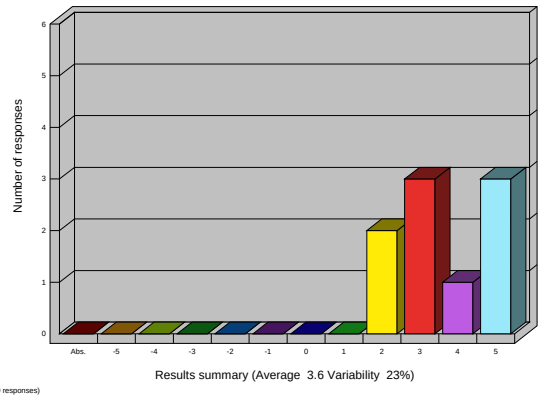
Eliminate unnecessary or overly bright outdoor ligh... vs Benefit



Results summary (Average 3.7 Variability 13%)

(9 responses)

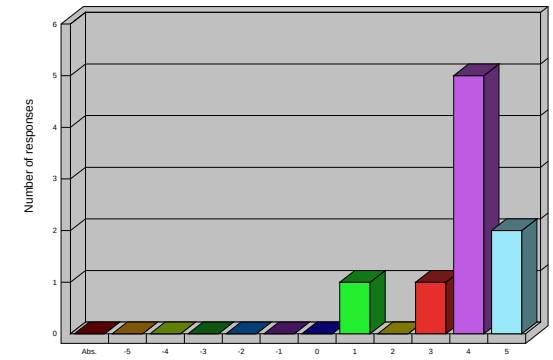
Require sellers to provide current energy audit... vs Feasibility



Results summary (Average 3.6 Variability 23%)

(9 responses)

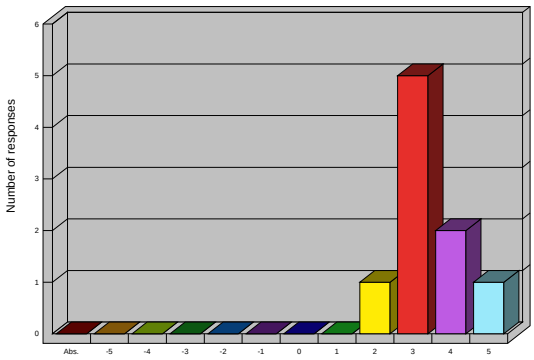
Expedite building permits for projects that reach a... vs Benefit



Results summary (Average 3.8 Variability 23%)

(9 responses)

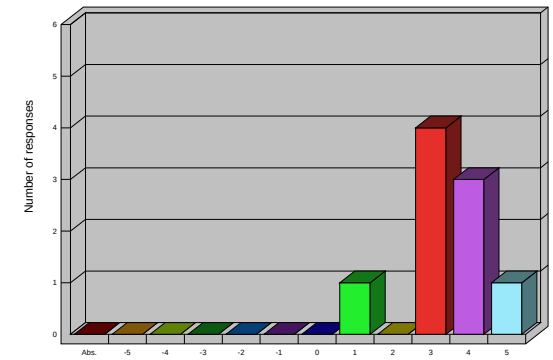
Develop programs to improve, convert, or replac... vs Feasibility



Results summary (Average 3.3 Variability 16%)

(9 responses)

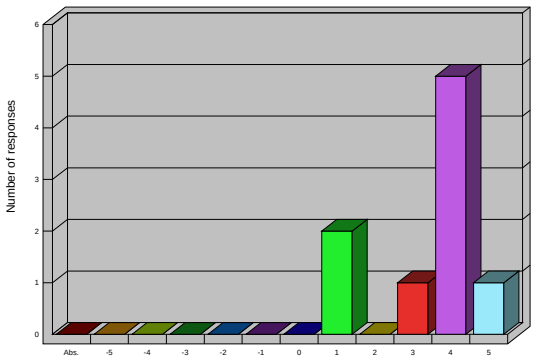
Expedite building permits for projects that rea... vs Feasibility



Results summary (Average 3.3 Variability 21%)

(9 responses)

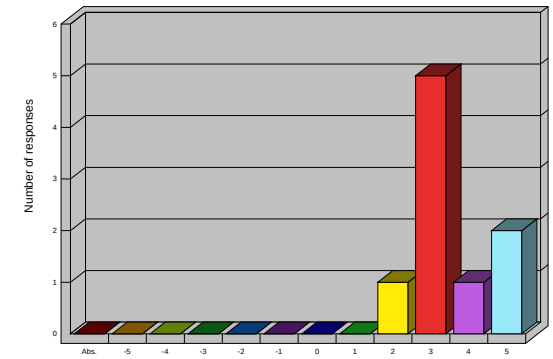
Implement a "Dark-Sky" ordinance to reduce nighttim... vs Benefit



Results summary (Average 3.3 Variability 27%)

(9 responses)

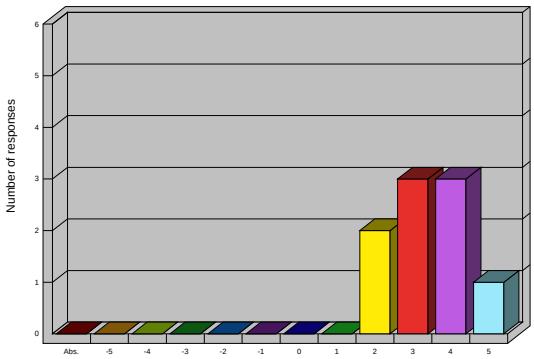
Develop programs to improve, convert, or replace in... vs Benefit



Results summary (Average 3.4 Variability 19%)

(9 responses)

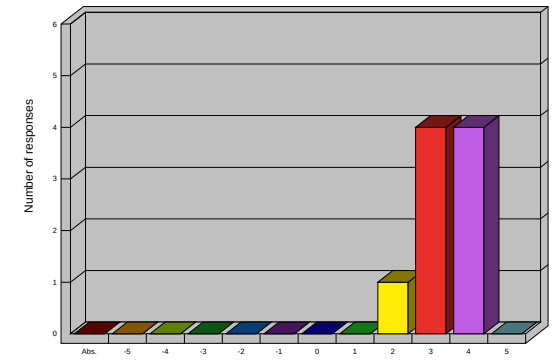
Implement a "Dark-Sky" ordinance to reduce nigh... vs Feasibility



Results summary (Average 3.3 Variability 19%)

(9 responses)

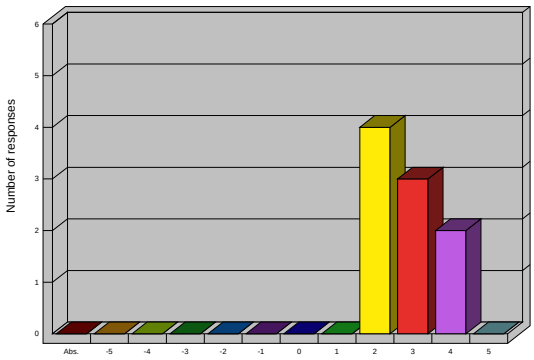
Promote the use of efficient wood burning heating a... vs Benefit



Results summary (Average 3.3 Variability 13%)

(9 responses)

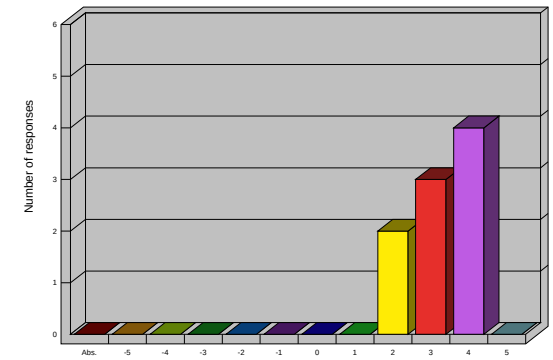
Replace all two-stroke engines with four-stroke... vs Feasibility



Results summary (Average 2.8 Variability 16%)

(9 responses)

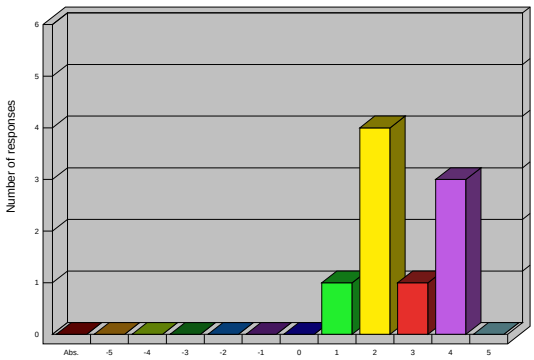
Promote the use of efficient wood burning heati... vs Feasibility



Results summary (Average 3.2 Variability 16%)

(9 responses)

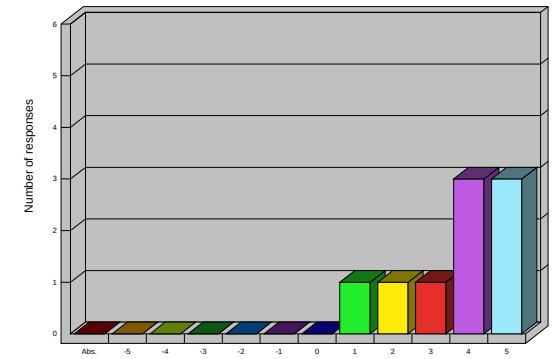
Provide information on carbon reduction strategies ... vs Benefit



Results summary (Average 2.7 Variability 21%)

(9 responses)

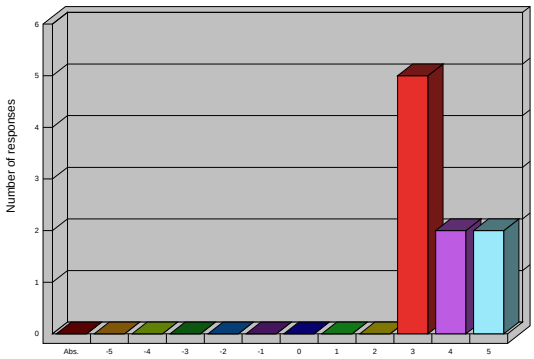
Replace all two-stroke engines with four-stroke eng... vs Benefit



Results summary (Average 3.7 Variability 27%)

(9 responses)

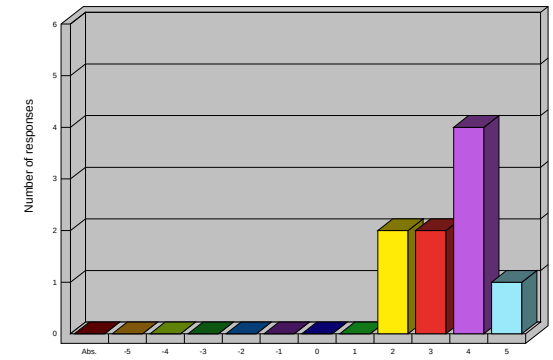
Provide information on carbon reduction strateg... vs Feasibility



Results summary (Average 3.7 Variability 16%)

(9 responses)

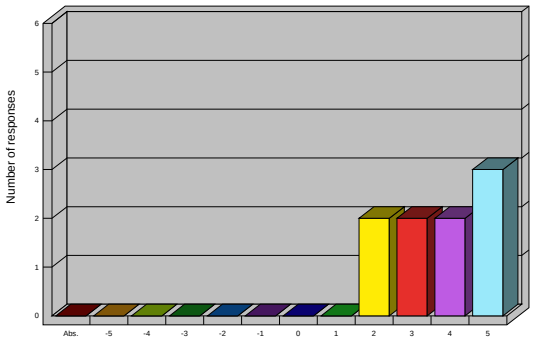
Revise building codes to allow for greater heights ... vs Benefit



Results summary (Average 3.4 Variability 19%)

(9 responses)

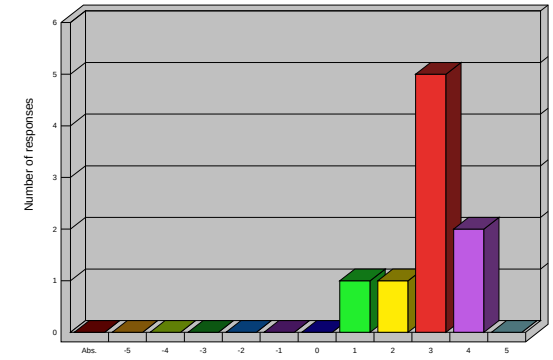
Create awards for businesses and developments w... vs Feasibility



Results summary (Average 3.7 Variability 23%)

(9 responses)

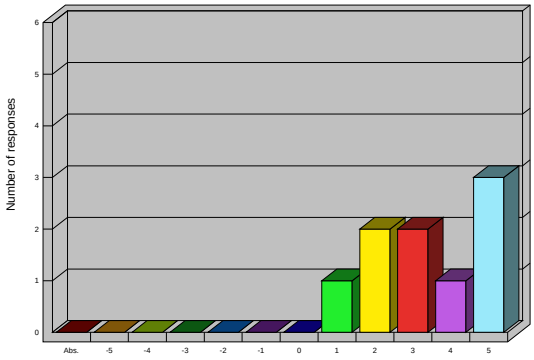
Revise building codes to allow for greater heig... vs Feasibility



Results summary (Average 2.9 Variability 18%)

(9 responses)

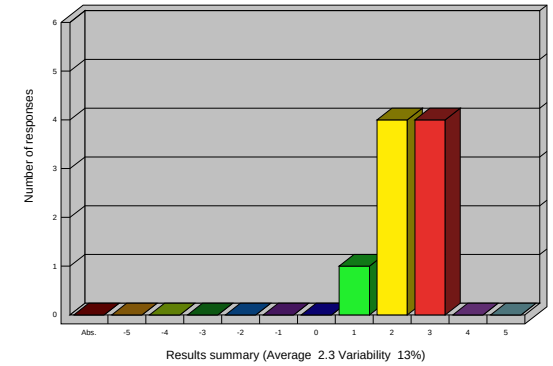
Eliminate use of gas-powered leaf blowers. vs Benefit



Results summary (Average 3.3 Variability 28%)

(9 responses)

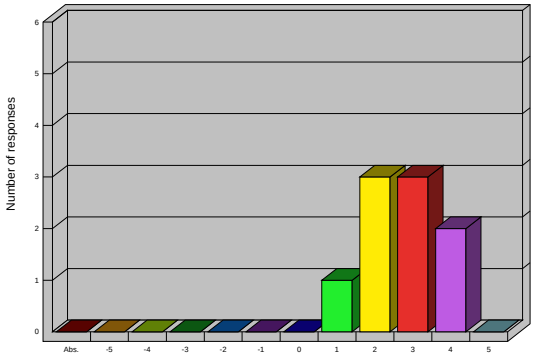
Create awards for businesses and developments with ... vs Benefit



Results summary (Average 2.3 Variability 13%)

(9 responses)

Eliminate use of gas-powered leaf blowers. vs Feasibility

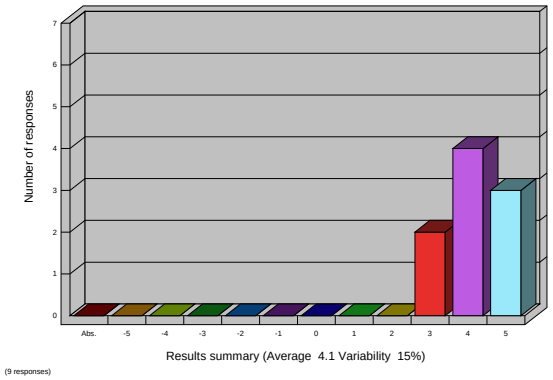


Results summary (Average 2.7 Variability 19%)

(9 responses)

Section 4 Graphs

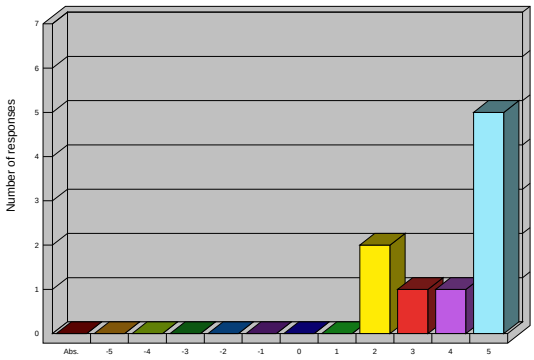
Promote townhouse, cluster and mixed-use develo... vs Feasibility



Results summary (Average 4.1 Variability 15%)

(9 responses)

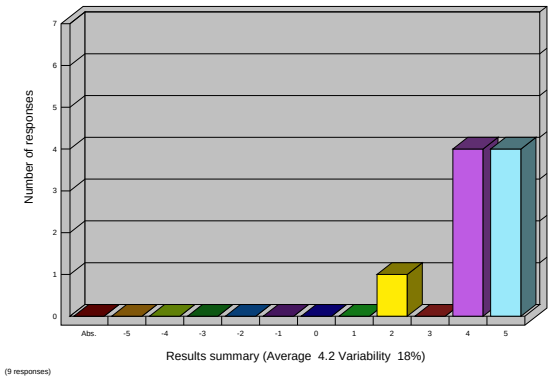
Create pedestrian and bicycle-friendly communities ... vs Benefit



Results summary (Average 4.0 Variability 25%)

(9 responses)

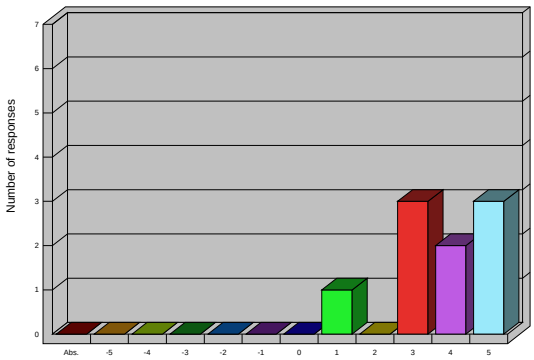
Promote townhouse, cluster and mixed-use developmen... vs Benefit



Results summary (Average 4.2 Variability 18%)

(9 responses)

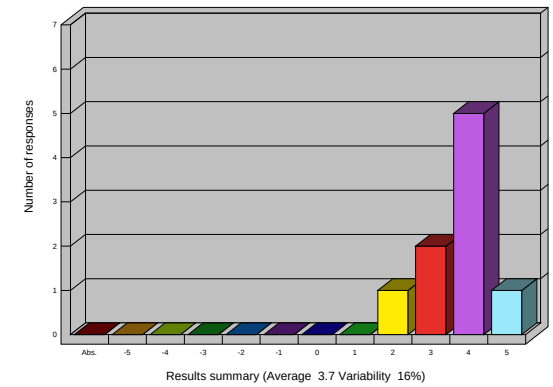
Promote urban density through code revisions fo... vs Feasibility



Results summary (Average 3.7 Variability 25%)

(9 responses)

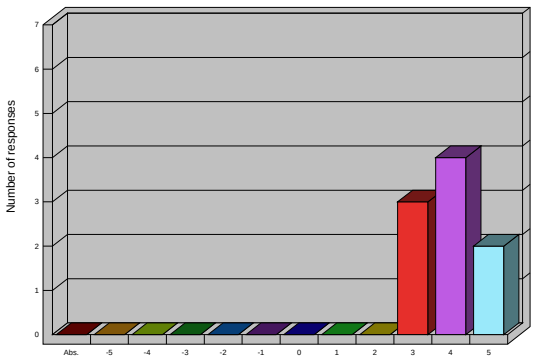
Create pedestrian and bicycle-friendly communit... vs Feasibility



Results summary (Average 3.7 Variability 16%)

(9 responses)

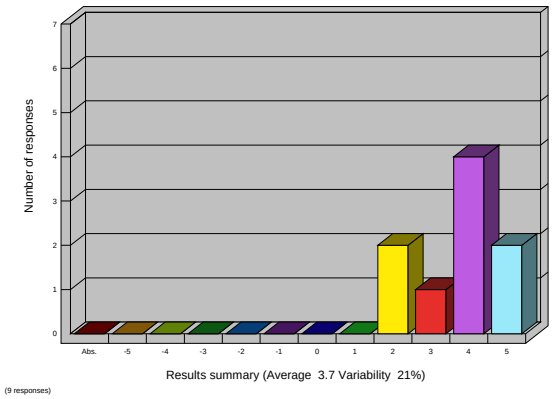
Promote urban density through code revisions for it... vs Benefit



Results summary (Average 3.9 Variability 15%)

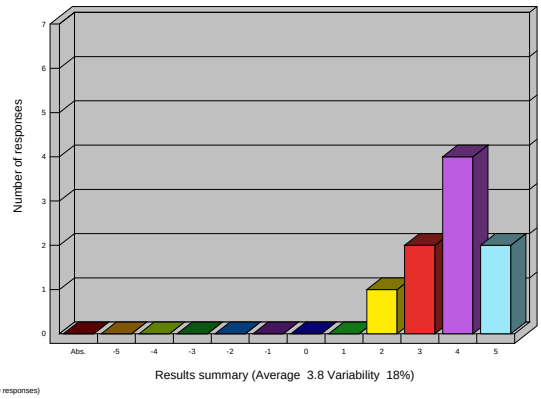
(9 responses)

Establish tree planting incentives for developm... vs Feasibility



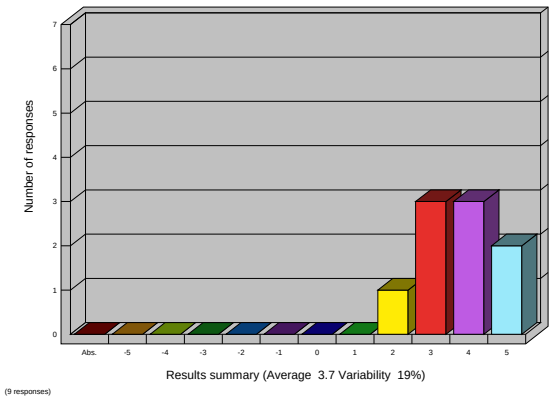
(9 responses)

Promote programs that offers carbon credits for tim... vs Benefit



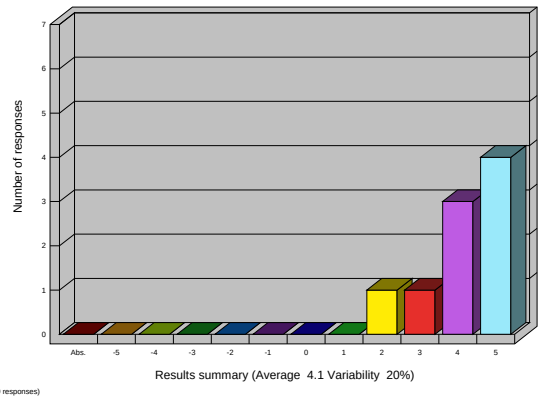
(9 responses)

Establish tree planting incentives for developments... vs Benefit



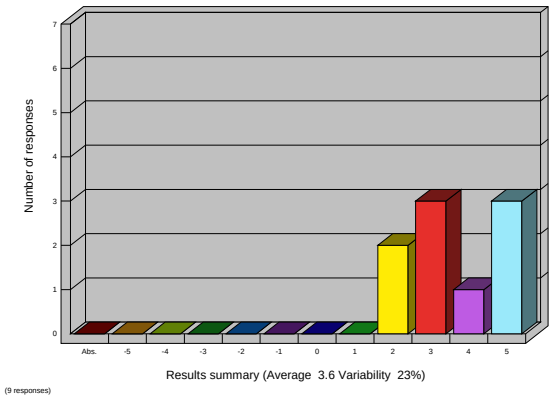
(9 responses)

Promote the use of drought-tolerant native plan... vs Feasibility



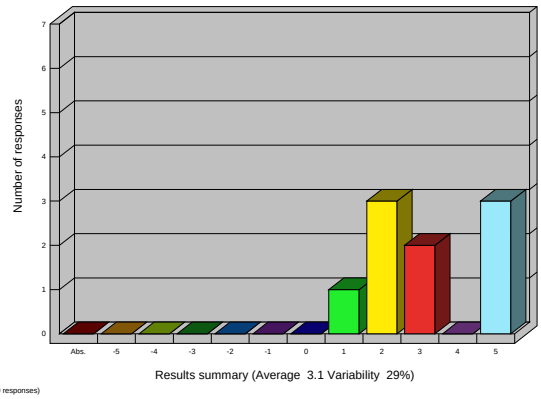
(9 responses)

Promote programs that offers carbon credits for... vs Feasibility



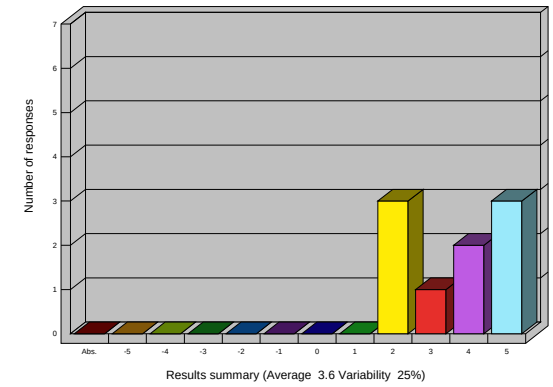
(9 responses)

Promote the use of drought-tolerant native plants a... vs Benefit



(9 responses)

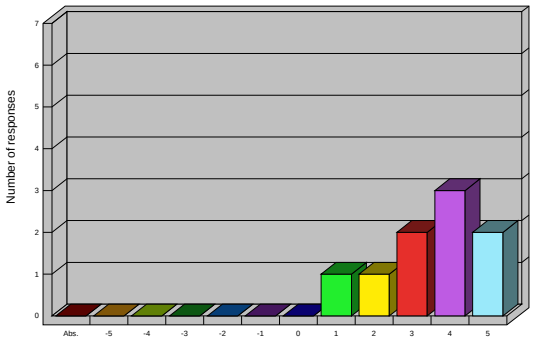
Promote small and affordable housing by includi... vs Feasibility



Results summary (Average 3.6 Variability 25%)

(9 responses)

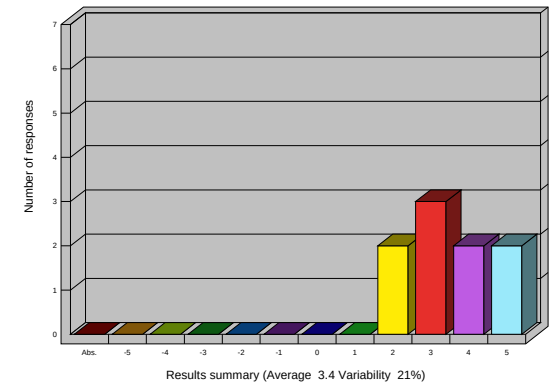
Make farm produce stands an allowed use anywhere an... vs Benefit



Results summary (Average 3.4 Variability 25%)

(9 responses)

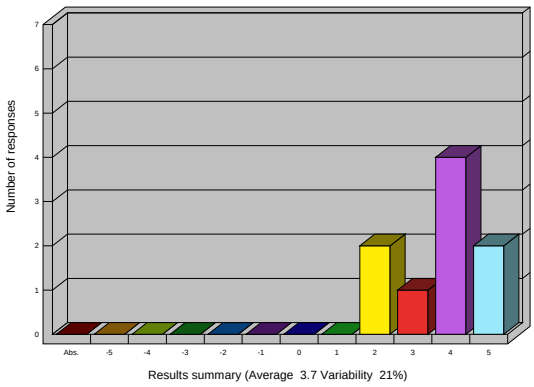
Promote small and affordable housing by including s... vs Benefit



Results summary (Average 3.4 Variability 21%)

(9 responses)

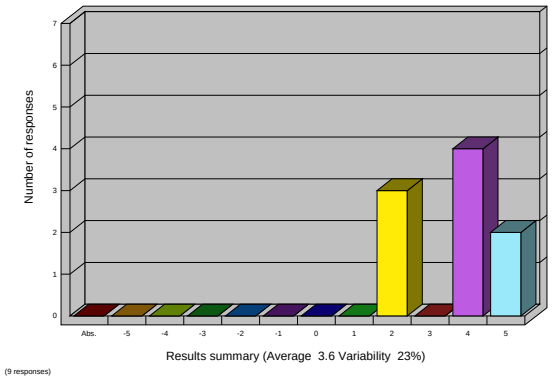
Develop program for use of local produce in sch... vs Feasibility



Results summary (Average 3.7 Variability 21%)

(9 responses)

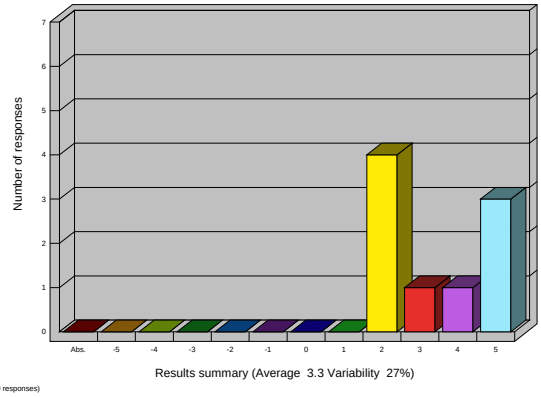
Make farm produce stands an allowed use anywher... vs Feasibility



Results summary (Average 3.6 Variability 23%)

(9 responses)

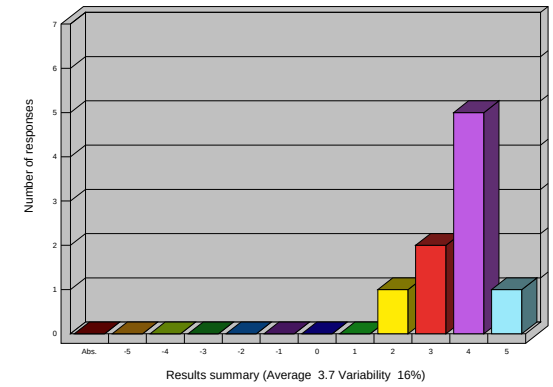
Develop program for use of local produce in school ... vs Benefit



Results summary (Average 3.3 Variability 27%)

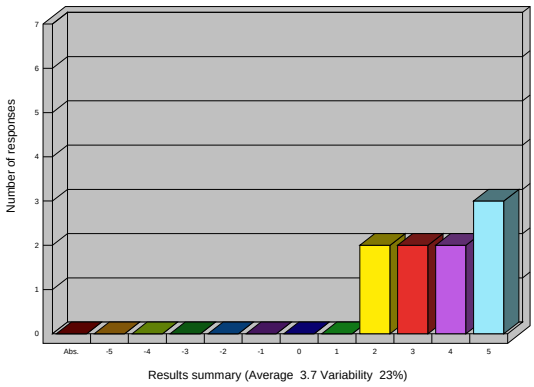
(9 responses)

Encourage the planting of rain gardens and othe... vs Feasibility



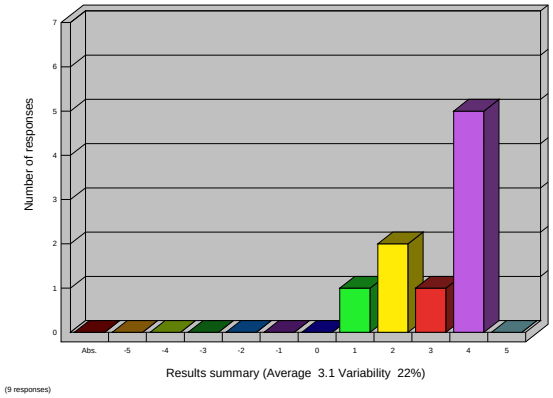
(9 responses)

Restrict development on land that is ideally suited... vs Benefit



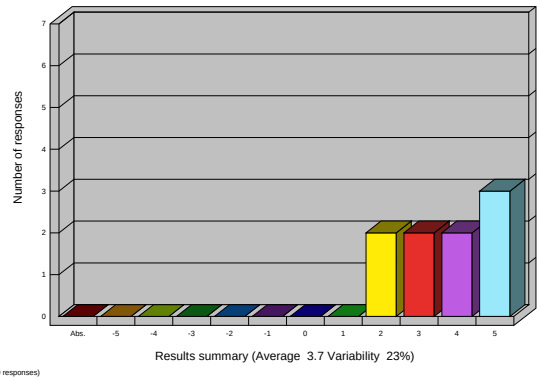
(9 responses)

Encourage the planting of rain gardens and other "L... vs Benefit



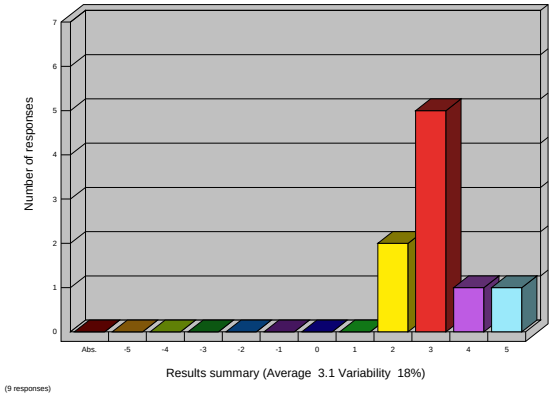
(9 responses)

Encourage more street plantings and home garden... vs Feasibility



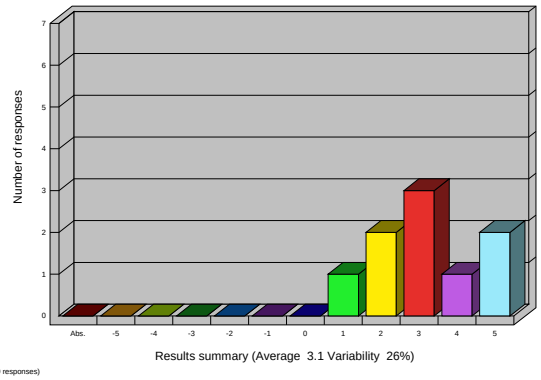
(9 responses)

Restrict development on land that is ideally su... vs Feasibility



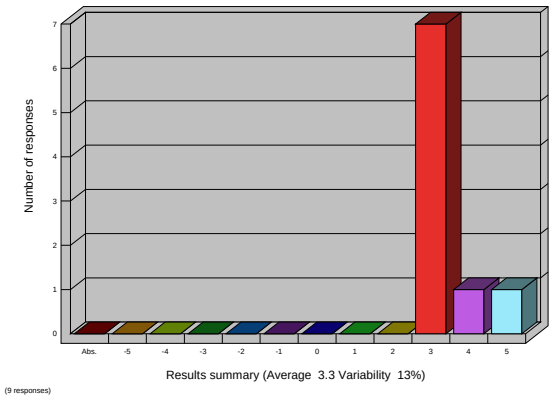
(9 responses)

Encourage more street plantings and home garden plo... vs Benefit



(9 responses)

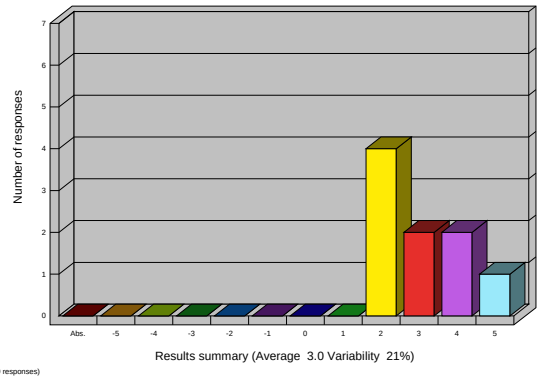
Support biogas production from manure. vs Feasibility



Results summary (Average 3.3 Variability 13%)

(9 responses)

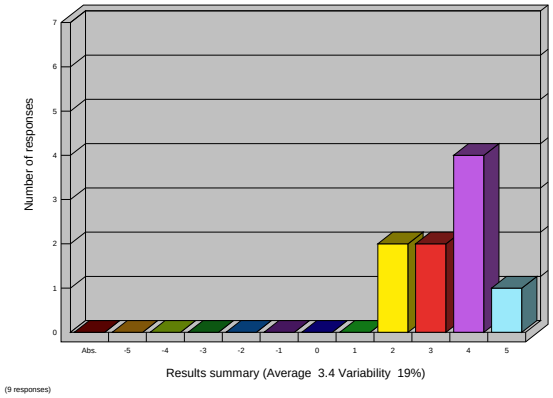
Provide space for farmer's markets and produce stands. vs Benefit



Results summary (Average 3.0 Variability 21%)

(9 responses)

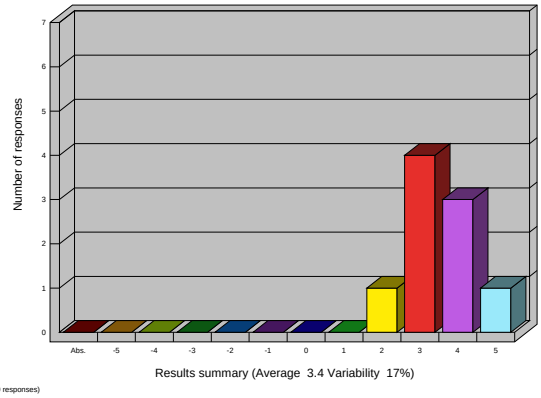
Support biogas production from manure. vs Benefit



Results summary (Average 3.4 Variability 19%)

(9 responses)

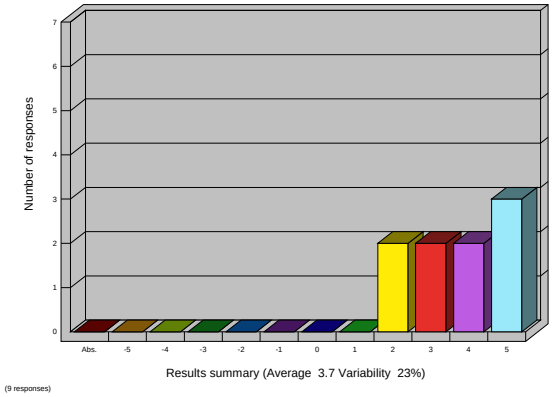
Reduce and/or eliminate parking requirements fo... vs Feasibility



Results summary (Average 3.4 Variability 17%)

(9 responses)

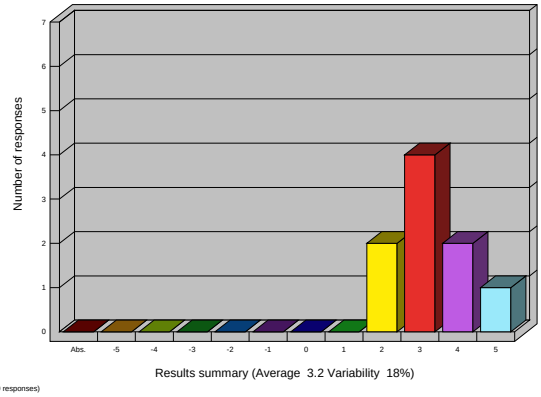
Provide space for farmer's markets and produce ... vs Feasibility



Results summary (Average 3.7 Variability 23%)

(9 responses)

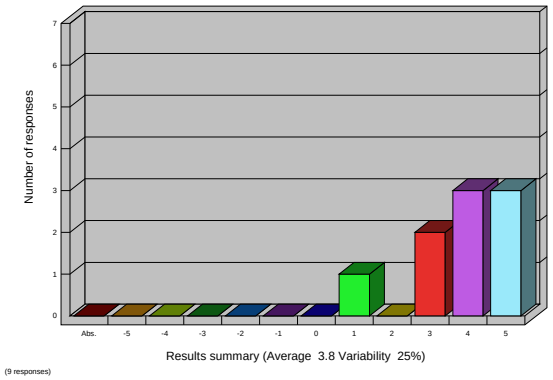
Reduce and/or eliminate parking requirements for de... vs Benefit



Results summary (Average 3.2 Variability 18%)

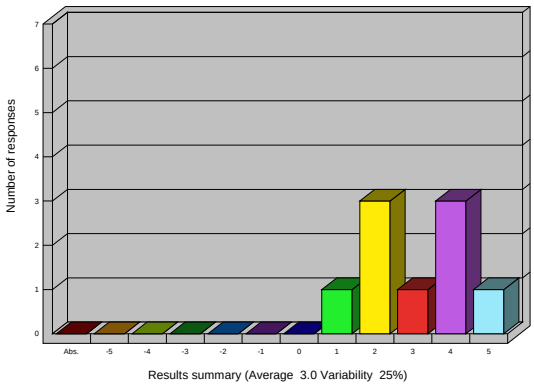
(9 responses)

Promote worm bins and composting systems for th... vs Feasibility



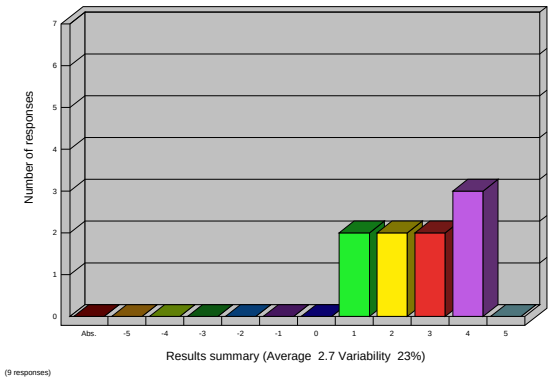
(9 responses)

Support a cooperative "mobile meat processing plant... vs Benefit



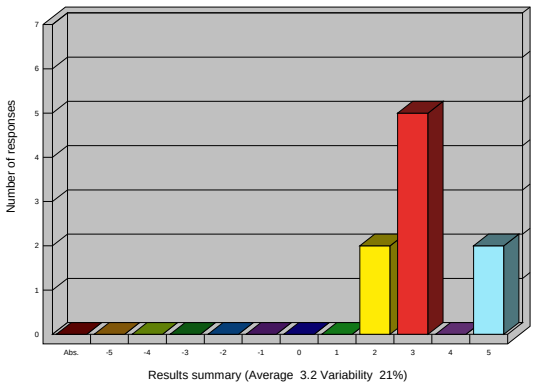
(9 responses)

Promote worm bins and composting systems for the fo... vs Benefit



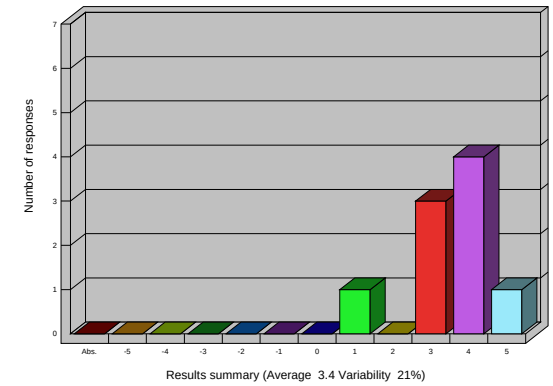
(9 responses)

Provide incentives for contractors to use pervi... vs Feasibility



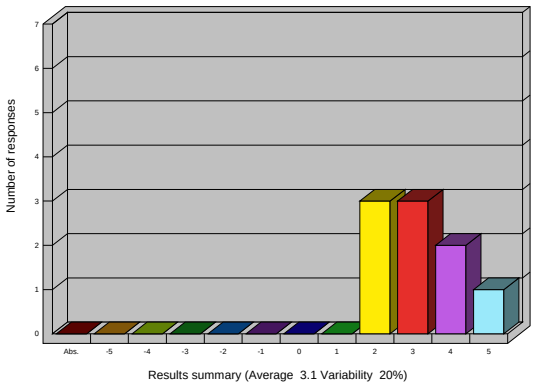
(9 responses)

Support a cooperative "mobile meat processing p... vs Feasibility



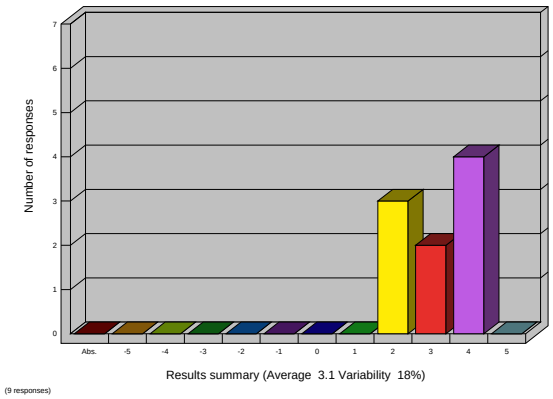
(9 responses)

Provide incentives for contractors to use pervious ... vs Benefit

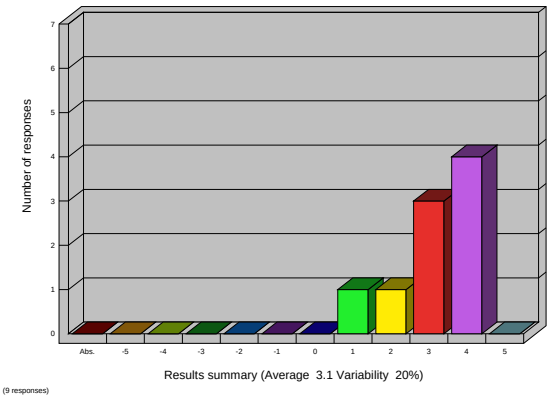


(9 responses)

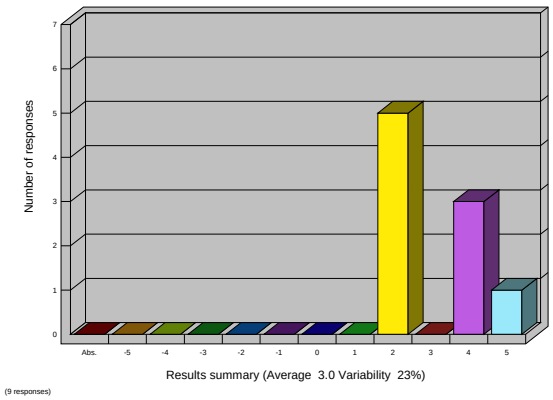
Develop in-school food production programs for ... vs Feasibility



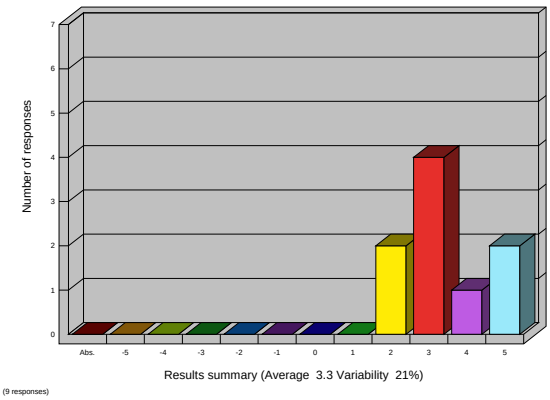
Prohibit outdoor burning. vs Benefit



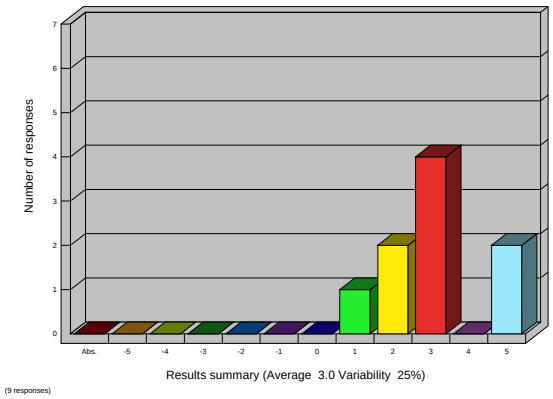
Develop in-school food production programs for stud... vs Benefit



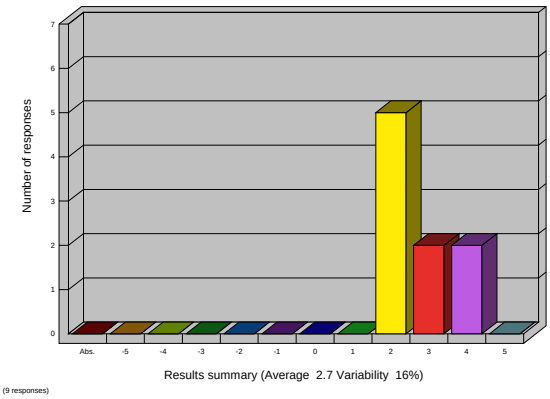
Allow and promote the use of city rights-of-way... vs Feasibility



Prohibit outdoor burning. vs Feasibility

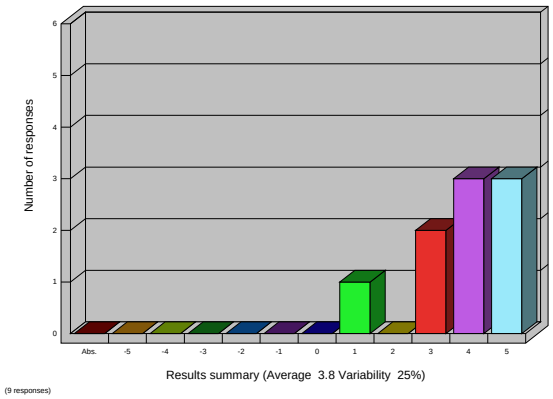


Allow and promote the use of city rights-of-way for... vs Benefit

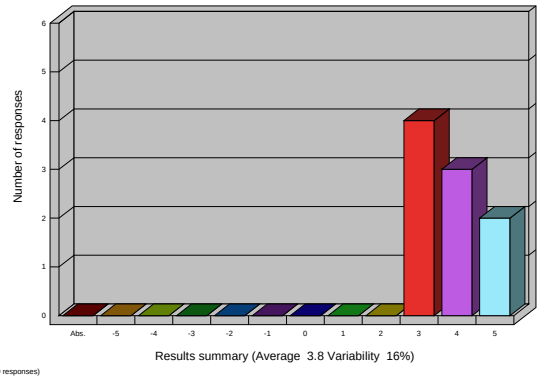


Section 5 Graphs

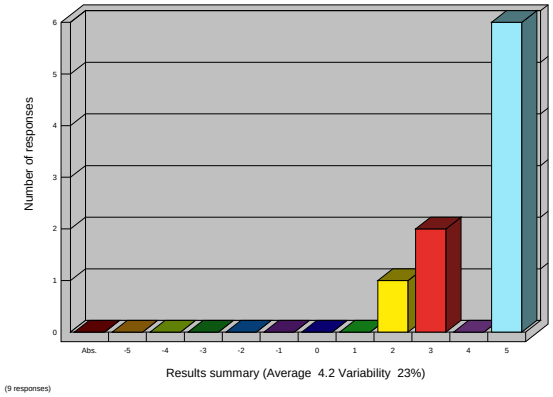
Require waste recycling. vs Feasibility



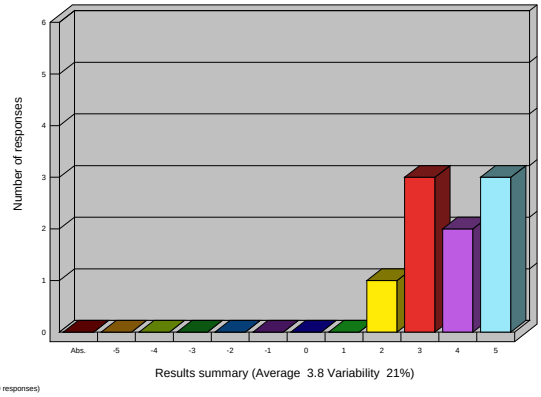
Encourage dis-assembly, deconstruction and recyclin... vs Benefit



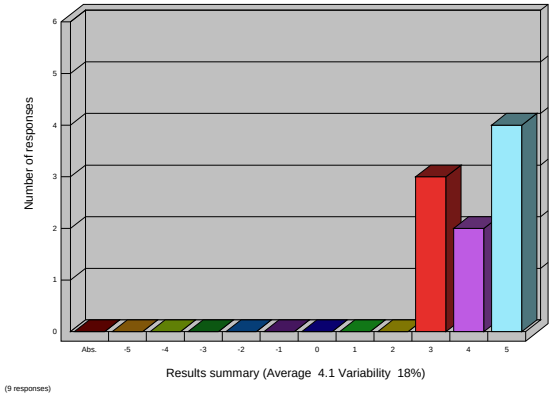
Require waste recycling. vs Benefit



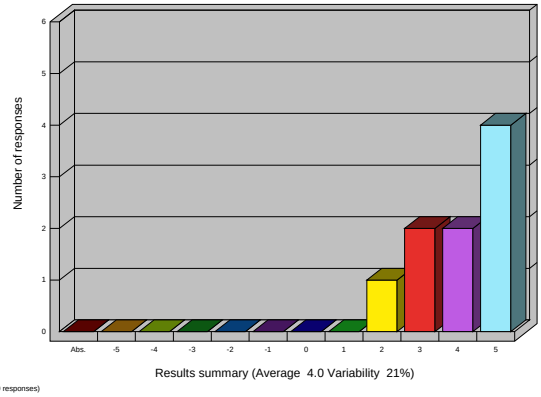
Promote adaptive reuse of historic or older bui... vs Feasibility



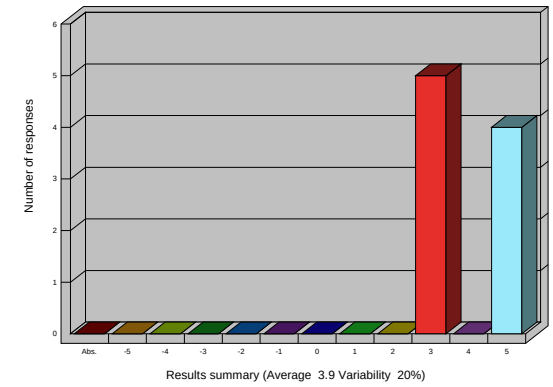
Encourage dis-assembly, deconstruction and recy... vs Feasibility



Promote adaptive reuse of historic or older buildings. vs Benefit

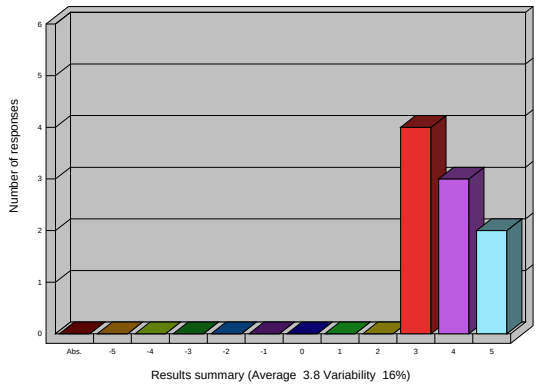


Develop a program for mandatory recycling of co... vs Feasibility



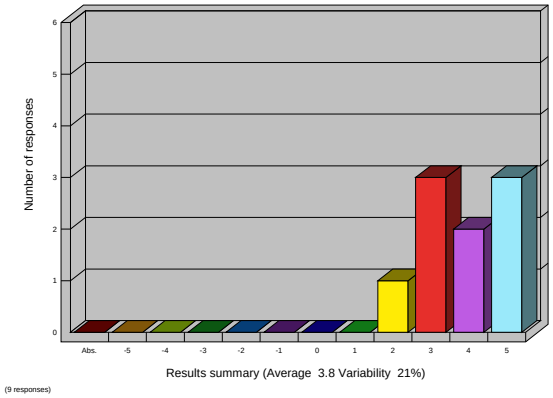
(9 responses)

Investigate wetland filtration systems as an altern... vs Benefit



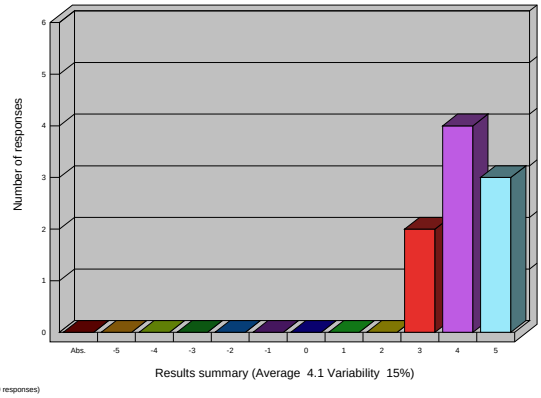
(9 responses)

Develop a program for mandatory recycling of constr... vs Benefit



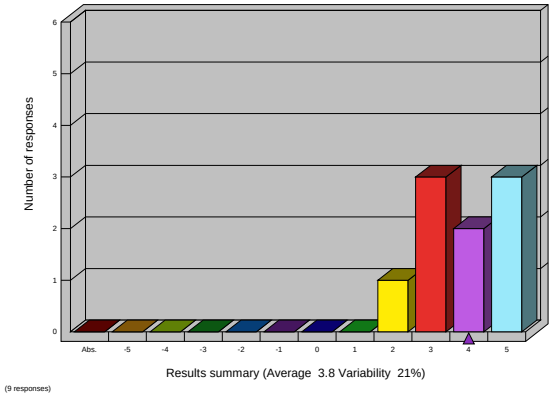
(9 responses)

Publicize pick-up services for pre-cycling, rec... vs Feasibility



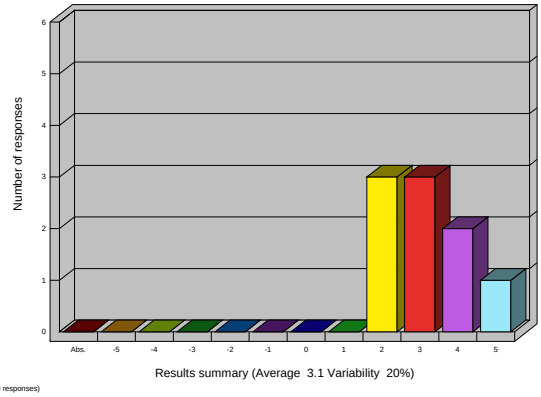
(9 responses)

Investigate wetland filtration systems as an al... vs Feasibility



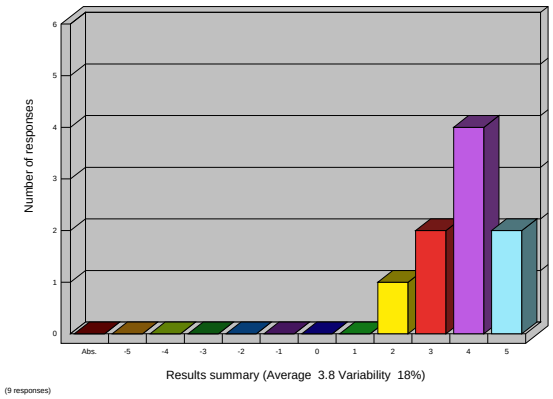
(9 responses)

Publicize pick-up services for pre-cycling, recycli... vs Benefit



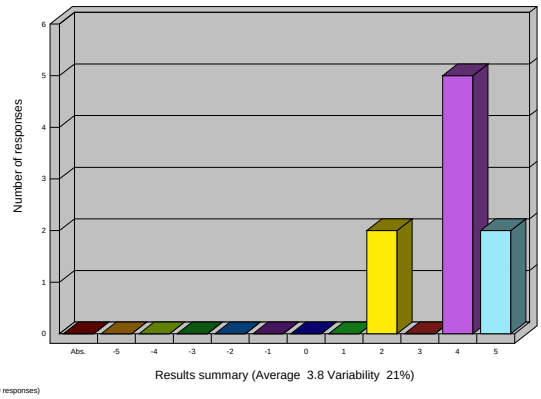
(9 responses)

Promote neighborhood composting centers. vs Feasibility



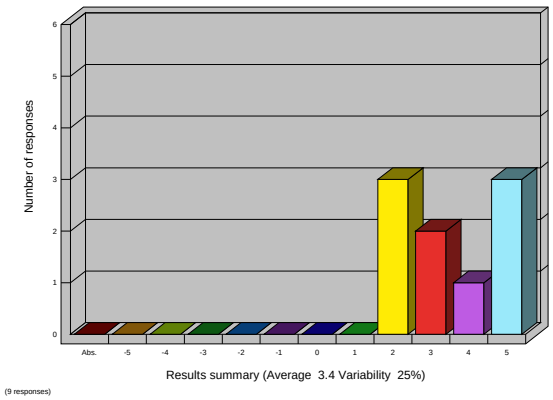
(9 responses)

Encourage reduced use of packaging, especially for ... vs Benefit



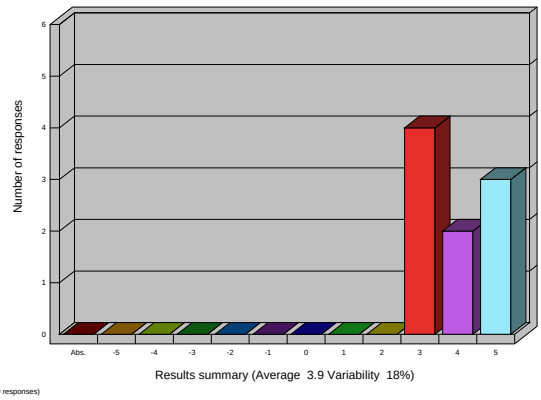
(9 responses)

Promote neighborhood composting centers. vs Benefit



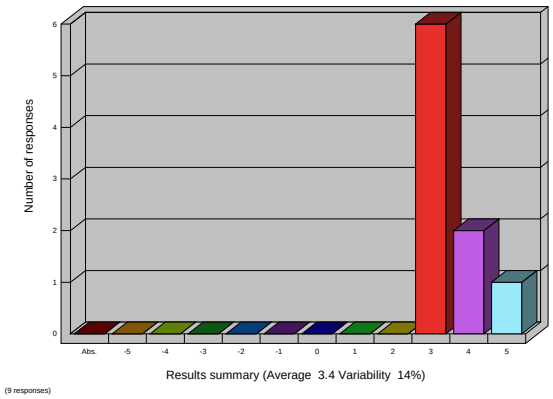
(9 responses)

Ease restrictions on rainwater catchment systems. vs Feasibility



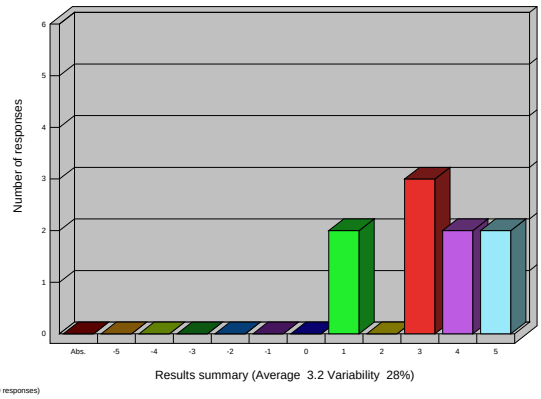
(9 responses)

Encourage reduced use of packaging, especially ... vs Feasibility



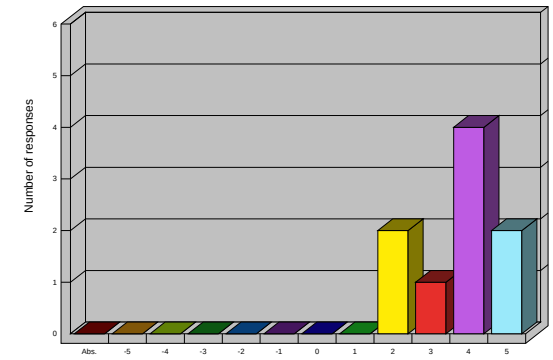
(9 responses)

Ease restrictions on rainwater catchment systems. vs Benefit



(9 responses)

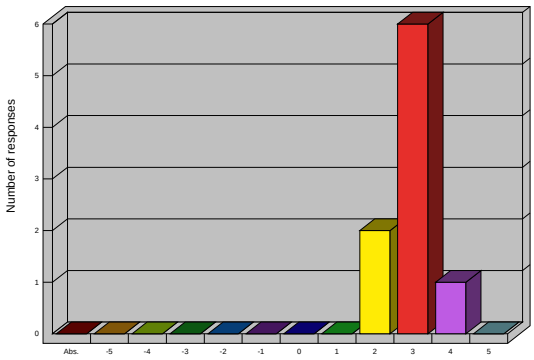
Investigate wastewater reclamation strategies f... vs Feasibility



Results summary (Average 3.7 Variability 21%)

(9 responses)

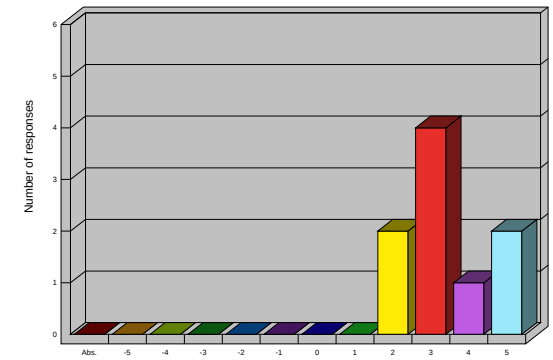
Establish compost credits for payment of yard waste... vs Benefit



Results summary (Average 2.9 Variability 11%)

(9 responses)

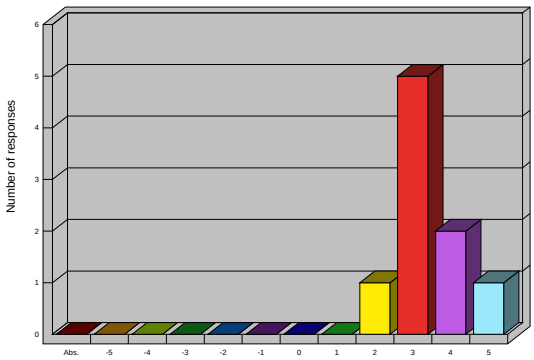
Investigate wastewater reclamation strategies for u... vs Benefit



Results summary (Average 3.3 Variability 21%)

(9 responses)

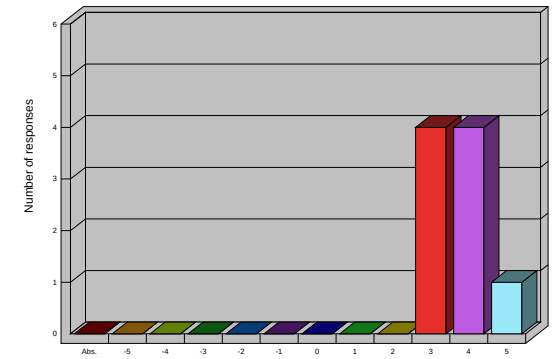
Establish a home pick-up pre-cycling program fo... vs Feasibility



Results summary (Average 3.3 Variability 16%)

(9 responses)

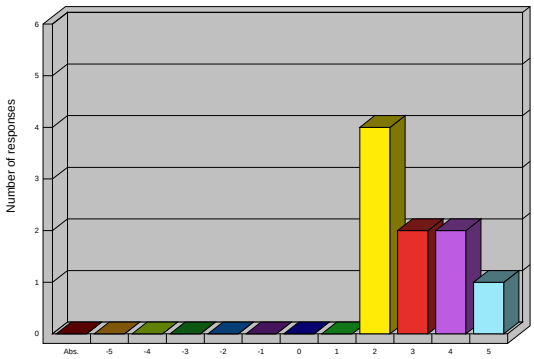
Establish compost credits for payment of yard w... vs Feasibility



Results summary (Average 3.7 Variability 13%)

(9 responses)

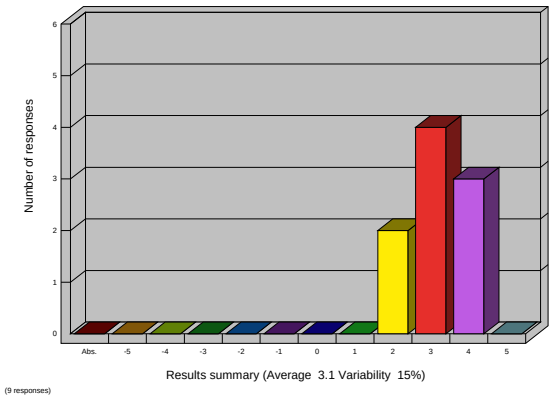
Establish a home pick-up pre-cycling program for it... vs Benefit



Results summary (Average 3.0 Variability 21%)

(9 responses)

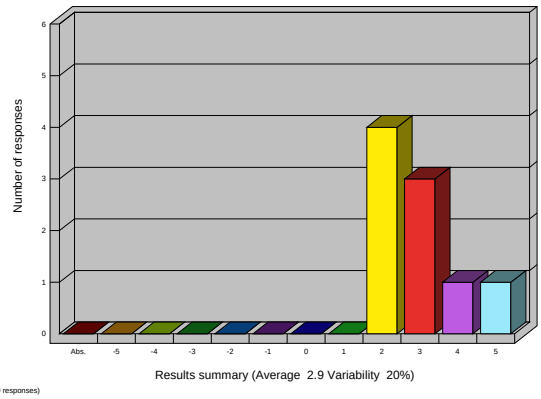
Develop better incentives for small garbage con... vs Feasibility



Results summary (Average 3.1 Variability 15%)

(9 responses)

Develop better incentives for small garbage contain... vs Benefit

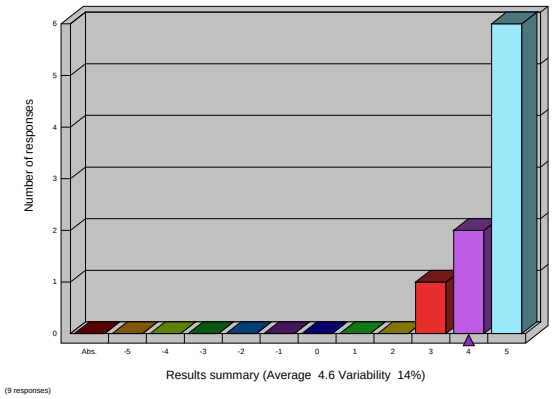


Results summary (Average 2.9 Variability 20%)

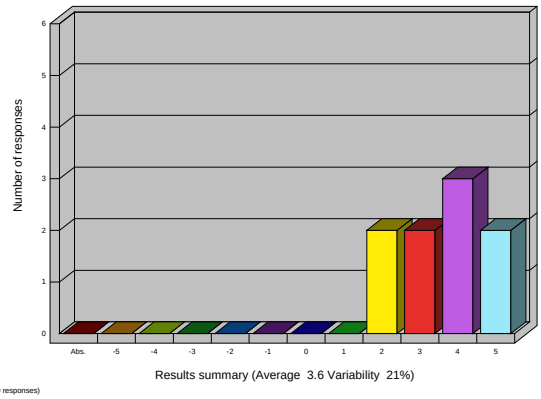
(9 responses)

Section 6 Graphs

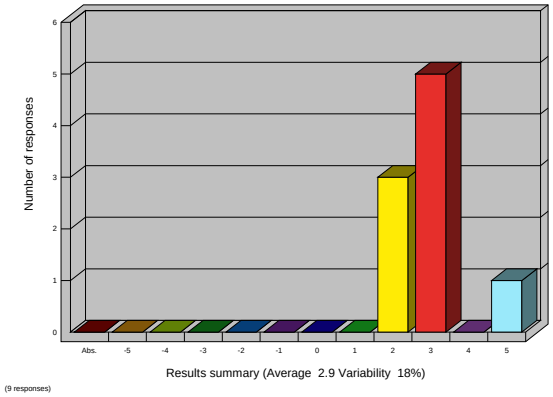
Publish articles and a regular newspaper column... vs Feasibility



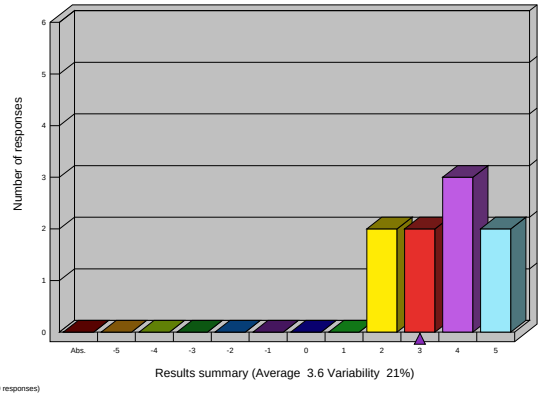
Develop classes for clean energy, gardening, agricu... vs Benefit



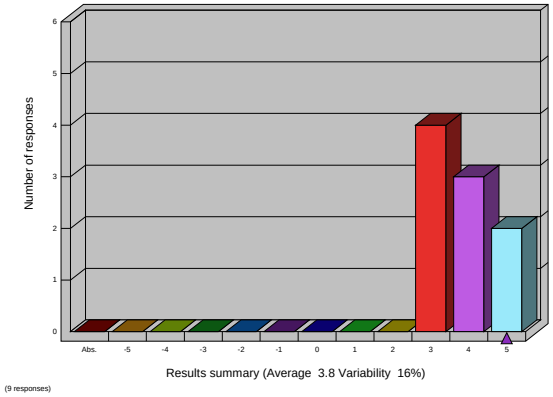
Publish articles and a regular newspaper column wit... vs Benefit



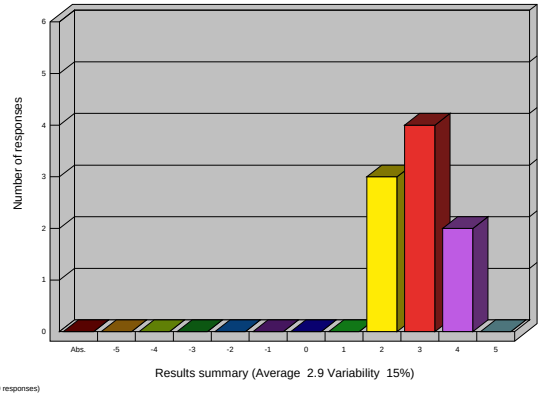
Coordinate curriculum of sustainability course ... vs Feasibility



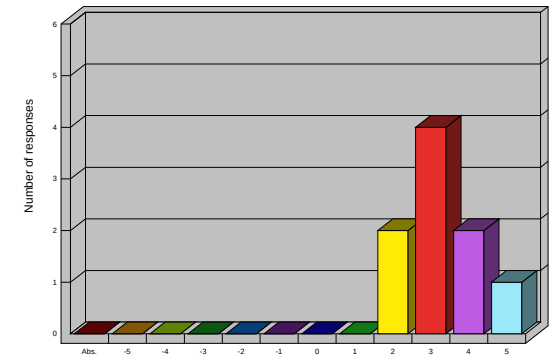
Develop classes for clean energy, gardening, ag... vs Feasibility



Coordinate curriculum of sustainability course offe... vs Benefit



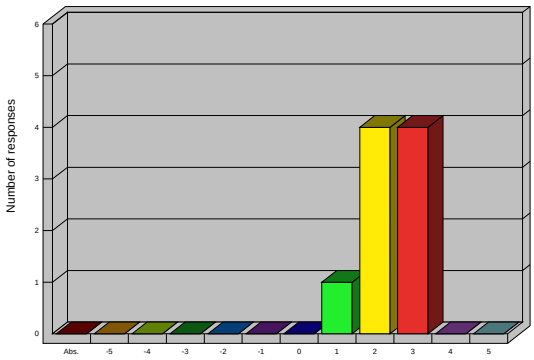
Develop civics and environmental classes on sus... vs Feasibility



Results summary (Average 3.2 Variability 18%)

(9 responses)

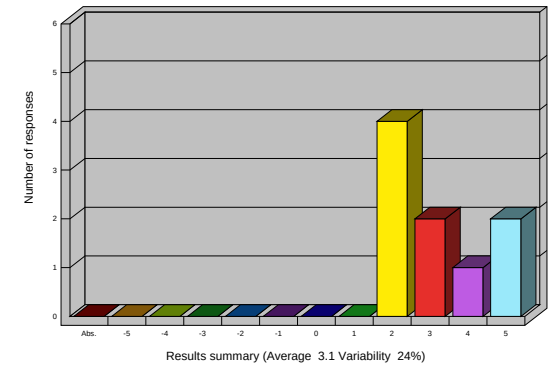
Develop lists for student projects on sustainability. vs Benefit



Results summary (Average 2.3 Variability 13%)

(9 responses)

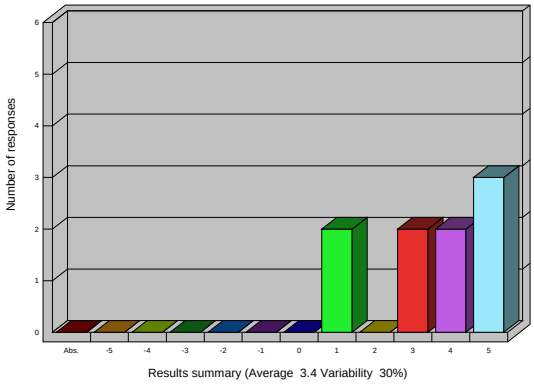
Develop civics and environmental classes on sustain... vs Benefit



Results summary (Average 3.1 Variability 24%)

(9 responses)

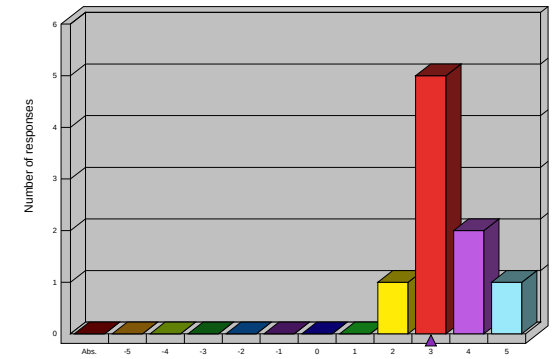
Create banners and signs promoting sustainabili... vs Feasibility



Results summary (Average 3.4 Variability 30%)

(9 responses)

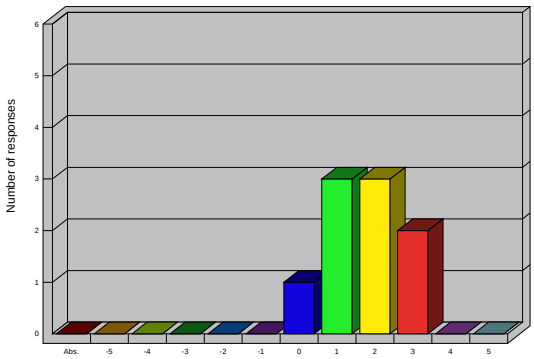
Develop lists for student projects on sustainab... vs Feasibility



Results summary (Average 3.3 Variability 16%)

(9 responses)

Create banners and signs promoting sustainability p... vs Benefit



Results summary (Average 1.7 Variability 19%)

(9 responses)

Appendix H

Letter Extending the Climate Action Committee

JEFFERSON COUNTY

DEPARTMENT OF COMMUNITY DEVELOPMENT

621 Sheridan Street

Port Townsend, WA 98368

Al Scalf, Director

January 3, 2011

Jefferson County Board of County Commissioners
P. O. Box 1220
Port Townsend, WA 98368

City of Port Townsend City Council
250 Madison St., Suite 2
Port Townsend, WA 98368

RE: One Year Extension of the Climate Action Committee

Dear Commissioners and Council Members:

The Jefferson County Board of County Commissioners (BoCC) and the Port Townsend City Council established the Climate Action Committee (CAC) by joint resolution (Jefferson County Resolution 02-08/City of Port Townsend Resolution 08-0001) on January 7, 2008. Section 11 of the resolution states:

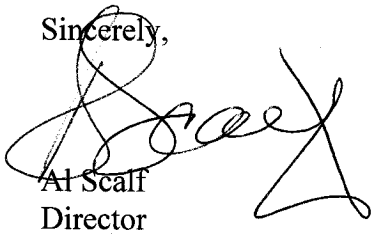
> Term of Committee – Sunset Provision
> CAC shall formally end within three years from the date of adoption of this Resolution unless otherwise extended by ordinance or resolution or by written permission from the County Director of the Department of Community Development.

Since its inception the CAC has worked diligently to fulfill its mission of creating a Draft Climate Action Plan to reduce greenhouse gas emissions. After cataloging existing measures, the committee drafted a public discussion document listing additional potential measures to reduce emissions. After taking the measures to a joint session of the BoCC and the City Council in June 2009, the committee presented this document at a series of open houses in Brinnon, Chimacum and Port Townsend. Throughout 2010 the CAC continued to revise and refine the potential measures into a draft Climate Action Plan.

In order for work on the draft plan to continue, I am extending the Climate Action Committee for one year to January 7, 2012. If the committee requires additional time after

January 7, 2012, the committee shall request an extension from the Board of County Commissioners and the City Council.

Sincerely,



Al Scalf
Director

cc: Judy Surber, Planning Manager, City of Port Townsend
Kees Kolff, Chair, Climate Action Committee
Rick Sepler, Director, Development Services Department, City of Port Townsend