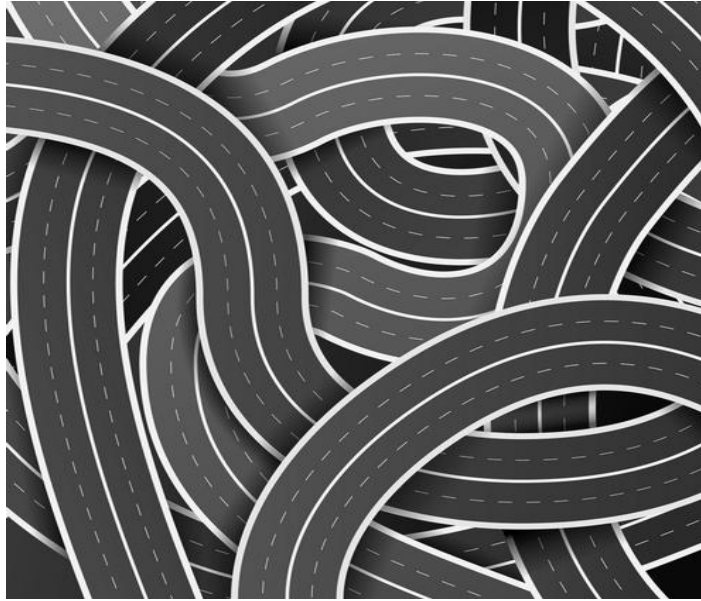


EVALUATING HIGHWAY PROPOSALS

2011 HIGHWAY STUDY



LEAGUE OF WOMEN VOTERS
OF JEFFERSON COUNTY, COLORADO

EVALUATING HIGHWAY PROPOSALS 2011 HIGHWAY STUDY

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League of Women Voters
of Jefferson County, CO

PART I BACKGROUND

WHY THE STUDY WAS CONDUCTED

Early in 2008, the concept of sustainability surfaced in the LWV Jeffco as an important area for further review, as this all-encompassing concept is implied in many LWV positions at the local, state, and national levels. Following the development of member materials and unit participation in discussions, Leaguers approved in April of 2009 the following sustainability position under the Natural Resources program area:

Support for a way of life, which seeks to balance environmental, economic and human needs, without compromising the ability of future generations to meet that same goal. Sustainability encompasses individual households, neighborhoods, local towns and cities, states and nations.

The Sustainability Committee identified and presented to our members various ways in which the county was or was not addressing the goal of building more sustainable communities. Out of the many issues presented at unit meetings, members directed the committee to focus primarily (though not exclusively) on the proposed privately-funded Jefferson Parkway toll road in the northwest quadrant of the county.

Following the members' consideration and discussion of Jefferson Parkway Every Member Materials in December of 2009, April of 2010, and in the spring of 2011, it became apparent that the LWV Jeffco had enough information (including various related positions) for the members to develop an opinion. [Please see Appendix A for a reference to the previous Jefferson Parkway documents.] We lacked, however, a broad study of highway issues. At the annual meeting in April of 2011, members approved a study to develop standards for highway and road development. Although there are local, state and national League positions that apply, there are additional new and evolving issues that need to be considered, such as private funding of public infrastructure. The Jefferson Parkway research is used as a platform for this study and the resulting consensus questions.

Transportation planning options profoundly affect our land use patterns, ecosystems, health, safety and pocketbooks. Decisions today about the county's roads, highways and transportation systems impact the natural and human environments now and well into the future.

HISTORY AND NEEDS ASSESSMENT FOR NEW AND EXISTING ROADS

The earliest mode of public transportation was a boat. Rivers as well as lakes and even oceans were the highways of the past. For countless generations land travel was not only slow and tedious but often dangerous as well. Then along came streetcars pulled by horses. Next came steam engines and the first rail line to carry passengers opened in 1825. With the advent of railroads people no longer needed to live close to work. They could commute. London built the first underground rail transit in 1863.

But in 1878, a German engineer built the first internal combustion engine. It was lighter and smaller than the steam engine and opened the path to automobiles as we know them today. In 1908, the Ford Model T hit the road and people went crazy for cars. In 1920, Angelinos took nine electric trolley trips for every one car trip. By 1924, those numbers were equal.

As cars became better and faster, our states and cities as well as the US government started building multi-lane freeways. These new roads forever changed the ways in which cities grew and were built. Now people did not even have to live near a train or bus stop. We created suburbs. If a person could afford a car, he bought and used it. People needed more and better roads and highways.

What are the criteria by which one can evaluate a proposed new road or the proposed repairs or upgrades to an old road or highway?

We have tools today that can guide the discussion about how to make transportation system choices. The Federal Highway Transportation Authority explains one of the most important ways that the National Environmental Policy Act of 1969 (NEPA) applies to their decisions:

Alternative courses of action [should] be evaluated and decisions be made in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation; of the social, economic, and environmental impacts of the proposed transportation improvement; and of national, state, and local environmental protection goals.¹

Any road evaluation must begin with an assessment of the need for a new road or for repairs or improvements to an old one. The assessment must include the consideration of alternatives also. Costs must be weighed against benefits. Costs include the dollars actually spent to build or improve a road. How much will this road project cost and from where will the money come? How many cars can be served for each dollar spent?

What are the benefits or needs to be met? A basic need is to move people and goods. Will this road accommodate the traffic so as to alleviate or prevent congestion? Will it alleviate or prevent delays? Will it improve safety? Will it be a reliable pathway? What is the average daily traffic to be served? What volume is anticipated in high traffic times? In the future?

Are there economic needs for this road? Will the road contribute to positive economic development? Is a new road or are improvements to an existing road necessary to the economic well-being of the community to be served? Do we have the engineering and technological resources to do this project well now? Which alternative would be less costly?

Are there significant safety needs involved with a road in a particular position? For instance, is a new or better road needed because this route is needed as an evacuation route in times of emergencies?

What alternatives to a new road have been considered? Would the population be better served by the expansion of public transportation? Light rail? Buses? Bike and walking paths or trails?

Costs include much more than dollars. The direct, indirect, and cumulative environmental effects on air quality, water quality, wetlands, noise pollution, wildlife and even aesthetics must be considered. Social concerns revolve around the splitting of communities of interest and the enhancing of inadvertent segregation.

Although "costs" normally connote dollars, these more indirect costs weigh heavily on any decision which ultimately involves some sort of environmental impact. The "costs" here involve not only dollars but the long range health of people and economic communities.

Herein lie more questions. Can the environmental impacts be sufficiently mitigated? If so, how? How can limited resources be spent most effectively and efficiently to serve the most people in a sustainable way? Technology marches on. Will personal cars become obsolete, or will there be ever more cars as new technology removes the necessity for large amounts of fossil fuels? Do we really need a new highway or should we improve an existing road?

These are the kind of issues Environmental Impact Statements (EIS) address.

WHAT LWV JEFFCO HAS DONE SO FAR

The LWV Jeffco's May 2010 *Denver Post* opinion editorial included these points:

- Sixty years ago our nation saw roads as paths to prosperity that might have been right for the time. Today, however, we should not be encouraging more driving, more congestion, more sprawl, and further stresses on ecosystems and human health.
- Smart, sustainable transportation planning recognizes the interdependence of economic, ecological and social impacts. It minimizes economic costs, supports a choice of travel modes, and protects the public's long-term priorities.

Our research shows that there is growing interest in the concept of sustainable transportation. For instance, the American Public Transportation Association defines sustainability as:

- Employing practices in design and capital construction, such as using sustainable building materials, recycled materials, and solar and other renewable energy sources to make facilities as 'green' as possible.
- Employing practices in operations and maintenance such as reducing hazardous waste, increasing fuel efficiency, creating more efficient lighting and using energy-efficient propulsion systems.
- Employing community-based strategies to encourage land use and transit-oriented development designed to increase public transit ridership.²

And the Federal Highway Administration (FHWA) characterizes sustainable transportation this way: Sustainable transportation may be described or defined in many ways that broadly address environmental, social and economic impacts, safety, affordability, and accessibility of transportation services. Transportation agencies address sustainability through a wide range of initiatives, such as ITS [intelligent transportation systems], livability, smart growth, recycling, planning and environment linkages, and addressing requirements of the National Environmental Policy Act (NEPA).³

When we took a look at the transportation policies of other Leagues and organizations, we found that most positions address infrastructure maintenance, multi-modal systems, safety, accessibility, public transit, economic costs, public accountability, and land use planning. For instance, here is the Position in Brief for the LWV of New Castle County, Delaware: *The League supports a balanced, intermodal transportation system interconnected with land use and based on interagency and inter-jurisdictional coordination.* The Rocky Mountain Chapter of the Sierra Club's positions:

The Sierra Club supports transportation policy and systems that:

- *minimize the impacts on and use of land, airspace and waterways, minimize the consumption of limited resources, including fuel, and reduce pollutant and noise emissions;*
- *provide everyone, including pedestrians, bicyclists and transit users, with adequate access to jobs, shopping, services and recreation;*
- *provide adequate and efficient goods movement and substitute local goods for those requiring long distance movement, where feasible;*
- *encourage land uses that minimize travel requirements;*
- *strengthen local communities, towns and urban centers, and promote equal opportunity;*
- *eliminate transportation subsidies which handicap achievement of the above goals; and ensure vigorous and effective public participation in transportation planning.*⁴

Our LWV Colorado's transportation positions include this statement: *When expanding or building a new transportation entity, including a regional airport, consideration should be given to safety, access, availability, affordability, impacts on existing land uses, noise, and the needs of regional, county, and local governments.* Please see Appendix C for a more comprehensive list of applicable League national, state and local positions.

Although many of the studies we found address key issues that should be included in any transportation position, not all of the current issues in Jefferson County were included. In particular, public-private partnerships (PPPs) were not addressed. Those partnerships exist in our county and others in Colorado. The Northwest Parkway is one example, and so too is the proposed Jefferson Parkway. The private funding of public infrastructure is an important and growing issue, not only here, but country-wide.

Footnotes – Part I

1. Environmental Review Toolkit, www.environment.fhwa.dot.gov/projdev/index.asp
2. www.sustainablehighways.org/203/what-is-a-sustainable-highway.htm
3. www.apta.com/RESOURCES/HOTTOPICS/SUSTAINABILITY/PAGES/DEFAULT.ASPX
4. rmc.sierraclub.org/transportation/transportation.shtml

PART II

KEY ISSUES FOR DECIDING THE MERITS OF A PROPOSED NEW HIGHWAY OR CHANGES TO EXISTING ROADWAYS

HOW TRANSPORTATION AFFECTS LAND USE

When community planning is done properly, the transportation that results can be the impetus for future development that is not only environmentally friendly, but also highly desirable for residents and businesses. Transportation can be the driving force behind development and changing property values, and has consequences for the environment and affects the quality of citizen's lives. Community planning can enable the development of communities with good air and water quality and open space preservation as well as other amenities important to well being.

There have been land use regulations since at least the middle ages. The National Environmental Policy Act of 1969 was created to “declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality”. It mandated the creation of environmental impact statements creating a series of possible actions – such as preparation of an Environmental Assessment – and measuring their likely consequences which are now a familiar feature in public decision-making processes.¹

However, according to *Integrating Land Use Planning into Transportation Planning* the NEPA process largely overlooks the interactive nature of land use patterns and transportation systems. The transportation decisions should result from the land use planning process. States following this approach to planning have more rigorous planning requirements.²

A comprehensive plan is the basis for current American land use planning. After a comprehensive plan is in place, zoning is adopted that conforms to the plan. Some government agencies use a scenario-planning process to quantitatively evaluate impacts from several alternative development patterns, analyzing respective impacts on items ranging from the affordability of housing to water quality. The analysis may include several measures of transportation efficiency with emphasis on minimizing the impact of transportation on the community.

Land Use in Colorado

According to the Colorado Revised Statutes and the Colorado Real Estate Manual, Colorado laws delegate authority to local governments for land use controls and plans which must promote and protect the health, safety, and welfare of the constituents in the jurisdiction. This is done through zoning, planning commissions, and comprehensive plans for the physical development of their jurisdictions.³

Land Use in Jefferson County

Jefferson County's Master Plan prescribes a collaborative process that involves the community to help protect or enhance social and natural community values while addressing the purpose and need of transportation improvements. People choose places where it is convenient to live with respect to jobs and services, while businesses choose to locate in places where there are good services and an educated workforce. Land use that reduces travel time and travel costs requires a mixture of retail access and services. By placing commercial sites close to residential sites with convenient walking trails and motorized transportation, an attractive community can be established.⁴

Example of Land Use and Transportation Position

The Sierra Club encourages concentration of employment near established transit stations or stops in denser residential areas. It encourages the retrofitting and revitalization of existing communities. There should be neighborhood commerce in residential neighborhoods with a safe pedestrian street grid with sidewalks. The importance of parking convenience, auto free areas, parks, natural areas and plantings for humans and wildlife, aesthetic enhancement, and building/ sidewalk cooling are stressed. And of course, since it is the Sierra Club it encourages the protection of land outside presently developed areas from urban sprawl through urban limit lines or other restraints.⁵

Applicable LWV Colorado Position

When planning for a balanced transportation system, DOT [Department of Transportation] should consider social, governmental, economic, and environmental factors. When expanding or building a new transportation entity, including a regional airport, consideration should be given to safety, access, availability, affordability, impacts on existing land uses, noise, and the needs of regional, county, and local governments

Footnotes

1. ceq.hss.doe.gov/nepa/regs/nepa/nepaegia.htm
2. faculty.arch.utah.edu/bartholomew/SP_SummaryRpt_Web.pdf
3. www.landusepublications.com/
4. www.jeffco.us/jeffco/planning
5. www.sierraclub.org/policy/conservation/trans.aspx

HIGHWAYS AND WATER QUALITY

According to the Environmental Protection Agency (EPA), development can be a source of a significant amount of pollution to our nation's water. "Pollution is generated during road construction, maintenance, and use. Nonpoint source pollution, or runoff pollution, is created when chemicals, debris, fertilizers, automotive oils, debris from wearing parts, and litter are washed off roadways and bridges during rainstorms and carried as runoff to streams, rivers, lakes and bays."¹

Forests, wetlands and grasslands filter water slowly into the ground. When land surface is covered by buildings, pavement, roads, parking lots and rooftops, large amounts of runoff from rain flows through storm drains in straight conduits, gathers speed and erosional power, and when it empties into a stream, has excessive volume and power affecting vegetation and aquatic life. It also affects groundwater and lower stream flows potentially harming native fish and aquatic life.²

"Sediment from development and new construction; oil, grease, and toxic chemicals from automobiles; nutrients and pesticides from turf management and gardening; viruses and bacteria from failing septic systems; road salts; and heavy metals are examples of pollutants generated in urban areas. Sediments and solids constitute the largest volume of pollutant loads to receiving waters in urban areas".³

The emissions from cars have a profound impact on the waterways. A vehicle's emissions are not just determined by the amount of driving one does. Large vehicles with gas guzzling mileage issues emit more hazardous and toxic pollutants into the air where they then filter down to the ground and our waterways. Water pollution prevention requires a heightened level of consciousness, including what type of vehicle and how far or often the vehicle is driven. Driving less is part of a quality water pollution prevention program as the vehicles on the road are responsible for at least 1/3 of the nitrogen pollution in the Earth's water.⁴

Applicable LWVUS Position

Water Resources: The League supports "measures to reduce water pollution from direct point-source discharges and from indirect nonpoint sources."

Footnotes

1. "Managing Urban Runoff," water.epa.gov/polwaste/nps/planroad.cfm
2. "Protecting Water Quality from Runoff," www.epa.gov/owow_keep/NPS/urban_facts.html
3. "Managing Urban Runoff," *Op. Cit.*
4. scipeeps.com/water-pollution-prevention/

IMPACTS OF HIGHWAYS ON AIR QUALITY

Pollutants Generated by Motor Vehicles

Motor vehicles account for many of the toxic pollutants that Americans breathe. A publication associated with the authoritative National Academy of Sciences states: On-road vehicles were responsible nationally in 1999 for 29 % of all volatile organic compound (VOC) emissions, 34% of all nitrous oxide (NO_x)* emissions, 30% of air toxics, and 51% of all carbon monoxide (CO) emissions. In Denver, motor vehicles accounted for nearly 40 percent of fine particulate matter (PM) emissions; "including dust from paved roads and secondary ammonium nitrate from NO_x emissions, motor vehicles may contribute as much as 50 to 75 percent of the fine PM in Denver." ¹

* NOTE: There are several oxides of nitrogen that are referred to collectively as No_x. For the purposes of air pollution, ozone and other air quality issues they are always considered together.

Impact of New Highways on Vehicular Travel

The following is from a 2004 study by the U.S. Public Interest Research Group Education Fund (USPIRG). Between 1970 and 2002, vehicle miles traveled in American urban areas tripled from 570 billion miles to 1730 billion miles.

"Extending a highway into a new area effectively opens that area to large-scale development—often of the sprawling, auto-dependent variety. Meanwhile, the expansion of highway capacity can speed travel times to allow drivers to take more or longer trips in the same amount of time—or even encourage those who had shifted to other modes of transportation to return to driving. ...the longer it takes to get somewhere via a particular highway, the less likely people are to use it....The creation of a new or expanded highway not only results in a greater allocation of existing trips to the newly expanded highway, but it actually *expands the pool of existing trips* by attracting new development to the highway corridor and squeezing out other modes of travel (for example, causing a significant decrease in ridership that forces the elimination of a bus line). The result is the creation of a ...new equilibrium" in which use of the new highway expands to the point that congestion can be as great as before.

“Travelers switch from other modes of transportation (mass transit) to private vehicle, travelers make entirely new trips; residential and commercial development springs up along new highways and beyond their termini, attracting drivers to make trips that would otherwise not have been made. The perceived reduction in travel time allows this development to take place into more remote areas than would otherwise be possible....significant increases in highway capacity lead to both increased driving in the short run and altered land use patterns that promote automobile dependency in the long run.

“[T]he relationship between highway capacity and vehicular air pollution, per capita, is strongest in America’s largest cities – those with at least one million people.” ²

Colorado Out of Compliance for Ozone

The following is summarized from the “Denver Metro Area & North Front Range Ozone Action Plan” adopted by the State in 2008 with revisions.

Of the various pollutants, ozone is the only one for which Colorado is out of compliance with Environmental Protection Agency standards. The area, therefore, must have in effect a plan of action for reducing ozone levels.

In 1997, EPA adopted what was then a more stringent standard of 0.08 parts per million (ppm) over an 8 hour period. Colorado failed this standard. The state developed an action plan which EPA approved in 2005 with revisions approved in 2008. The geographical area of Colorado which must be brought into compliance is all of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties and the southern portions of Larimer and Weld counties. This is topographically a bowl shaped area into which ozone, which is heavier than air, settles.

In 2008 EPA established a new, more stringent standard for ozone of 0.075 ppm based on more recent information of ozone’s health effects. States have until 2013 to submit revised implementation plans to meet that new standard. In 2008 Colorado found that eight monitors in the Denver Metro/North Front Range Area violated the 0.075 standard. Consideration of additional mitigating measures began.³

According to numerous news sources the 2008 standard issued by then President Bush was weaker than the recommendations of EPA’s scientific advisors who found it too weak to protect public health. Accordingly, under President Obama, EPA scientists restudied the evidence and unanimously recommended a standard between 0.060 and 0.070 ppm. The standard was expected to be issued in September 2011. The environmental community was shocked and angered when on September 2, 2011 President Obama announced he was dumping the proposed new regulation. On that same day, LWVUS President Elisabeth MacNamara issued the following statement to the media:

“In the face of political pressure from polluters, President Obama has backed down, a decision which will hurt those most threatened by air pollution, particularly children and seniors. Public opinion is clear - clean air and public health are more important than polluter profits. The science is clear - a new clean air standard for ozone smog is needed to protect peoples’ health.”⁴

The LWVUS then joined with the Natural Resources Defense Council and the League of Latin American Citizens to release the results of a poll conducted by Public Policy Polling to measure support for the EPA on the issue of clean air. Colorado was among the states surveyed. The Colorado results found that 81 % of Colorado women think the president should have sided with the health experts rather than the polluters regarding ozone standards. The poll found that 71% of Coloradans are unhappy with President Obama’s decision.⁵

Ozone Dangers by Colorado County

According to the American Lung Association (ALA), high ozone days this past June through August 2011, for Colorado counties were as follows. The columns reflect the 0.075 standard for ozone (unhealthy for sensitive groups reflects the number of 0.075 and above days while unhealthy for everyone are days 0.096 and above).⁶

	<u>Unhealthy for sensitive groups</u>	<u>Unhealthy for all</u>
Jefferson	32	1
Larimer	26	
Douglas	18	
Boulder	13	
Adams	8	
Denver	5	
Arapahoe	5	
El Paso	3	
Weld	3	
La Plata	2	
Mesa	1	

Why Jeffco has the Most Dangerous Ozone Levels in Colorado

So why does Jefferson County have the worst air quality for ozone of any county in Colorado, more than six times the number of unhealthy days as Denver? The Denver Metro Area and North Front Range Ozone Action Plan states: "In the Denver/North Front Range area, ozone is principally a summertime problem associated with high temperatures, intense sunlight, little cloud cover, little moisture, light winds, and persistent high pressure systems. The State of Colorado monitors ambient ozone concentrations at 15 sites in the Denver/North Front Range. High ozone levels are most likely recorded at monitors along the foothills from Fort Collins south to Chatfield Reservoir in Douglas County. Typically, light easterly winds pick up volatile organic compound and nitrogen oxide pollutants throughout the metro area and intense sunlight "bakes" the pollutants, resulting in highest concentrations along the foothills during prime ozone meteorological conditions." ⁷ Thus, the easterly winds blow the ozone west to the foothills where it is too heavy to climb the foothills and so accumulates just east of them in Jefferson County.

Federal Prohibition Against Funding Projects that Worsen Ozone Pollution

The Clean Air Act of 1990 prohibits the Federal government from funding or supporting any transportation plan or project that fails to conform to a state's plan for implementing the requirements of the Act. Specifically, transportation plans or programs cannot: cause or contribute to any new violation of any air pollution health standard; cannot increase the frequency or severity of any existing violation of any standard; and cannot delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. (This is from the USPIRG article cited at the beginning of this section.)

The American Lung Association (ALA) on Ozone

What is ozone and where does it come from?

Ozone (O₃) is an extremely reactive gas molecule composed of three oxygen atoms. It is the primary ingredient of smog air pollution and is very harmful to breathe. Ozone attacks lung tissue by reacting chemically with it.

Ozone is formed by chemical reactions in the atmosphere from two raw gases that are emitted by tail pipes, smokestacks and many other sources. These essential raw ingredients for ozone are nitrogen oxides and hydrocarbons, also called volatile organic compounds. When NO_x and VOCs come in contact with both heat and sunlight, they combine and form ozone smog. NO_x is emitted from power plants, motor vehicles and other sources of high-heat combustion. VOCs are emitted from motor vehicles, chemical plants, refineries, factories, gas stations, paint and other sources. NO_x + VOC + higher temperatures + sunlight = ozone.

How ozone pollution harms your health.

Breathing ozone can shorten your life. Even on days when ozone levels are low, the risk of premature death increases with higher levels of ozone.

“Ozone is capable of causing inflammation in the lung at lower concentrations than any other gas. Such an effect would be a hazard to anyone with heart failure and pulmonary congestion, and would worsen the function of anyone with advanced lung disease.”

Immediate problems—in addition to increased risk of premature death—include:

- shortness of breath;
- chest pain when inhaling;
- wheezing and coughing;
- asthma attacks;
- increased susceptibility to respiratory infections;
- increased susceptibility to pulmonary inflammation; and
- increased need for people with lung diseases, like asthma or chronic obstructive pulmonary disease (COPD),
to receive medical treatment and to go to the hospital.

Inhaling ozone may affect the heart as well as the lungs. A 2006 study linked exposures to high ozone levels for as little as one hour to a particular type of cardiac arrhythmia that itself increases the risk of premature death and stroke. A study found that exposure to elevated ozone levels for one to two days increased the risk of heart attacks for middle-aged adults without heart disease. Breathing ozone can decrease the lungs' ability to function in otherwise healthy people exposed to ozone for long periods. Researchers have found a higher risk of death from respiratory diseases associated with increases in ozone. And the risk of admission to hospitals for asthma increased with chronic exposure to ozone. Even low levels of ozone may be deadly; in a large study of 48 U.S. cities researchers found that ozone at even lower levels was associated with deaths from cardiovascular disease, strokes, and respiratory causes.⁸

Consequences

To summarize certain points made thus far in this Air Quality section: 1) 34% of all NO_x emissions and 29% of all VOC emissions (the chemical ingredients for creating ozone) come from on-road vehicles, and 2) net vehicle miles driven increase when a new highway is added to an area.

Particle pollution

Recall from the first paragraph of this section that motor vehicles may account for 50 to 75 % of fine particle pollution for metro Denver.

Particle pollution and ozone are the two pollutants in the US causing the most widespread health risks. At one time, the Denver Metro area was in a non-attainment status failing to meet EPA standards for PM. But the metro area improved its numbers sufficiently that the EPA in 2002 redesignated it as attained and approved in 2005 Denver's Maintenance Plan for PM₁₀ (particle size less than or equal to 10 microns.)⁹

EPA data collected by the American Lung Association for its State of the Air Report for 2011 indicates the number of days unhealthy for sensitive groups due to PM emissions: Denver with 5 days, Adams and Weld Counties with 3 days each, Arapahoe, Boulder and Douglas with 1 day each. Jefferson County has no monitoring sites for particle pollution so its number is not known.¹⁰ Because particle pollution is heaviest around coal fired power plants, there may be a belief that Jeffco does not need particle monitoring.

The American Lung Association (ALA) on the Dangers of Particle Pollution

According to the EPA, particle pollution is a mixture of extremely small particles and liquid droplets, made up of various components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Inhalable coarse particles are found near roadways and dusty industries. Fine particles are found in smoke and haze. They can be emitted from forest fires, or they can form when gases from industrial power plants or cars reach the air and produce a chemical reaction.

The ALA describes health impacts:

Particle pollution can increase the risk of heart disease, lung cancer and asthma attacks and interfere with the growth and work of the lungs. The smaller particles, those smaller than 10 microns, get trapped in the lungs, while the smallest are so minute that they can pass through the lungs into the blood stream, just like the essential oxygen molecules we need to survive.

New research points to ever-larger groups at higher risk, including diabetics, and most recently, women over 50. A study of over 50,000 members of the Teamsters Union employed from 1985 to 2000 found that death rates for heart disease were 49 percent higher among truck drivers (exposed to heavy diesel exhaust) than in the general U.S. population.¹¹

Greenhouse gases (GHG)

According to the EPA in 2003, about 81 percent of transportation GHG emissions in the United States came from on-road vehicles, including passenger cars, sport-utility vehicles, vans, motorcycles, and medium- and heavy-duty trucks and buses. In 2008, transportation sources contributed approximately 27 percent of total U.S. greenhouse gas emissions. On-road vehicles in the US contribute 22% of total GHG emissions.¹²

Transportation is also the fastest-growing source of U.S. greenhouse gas emissions, accounting for 47 percent of the net increase in total U.S. emissions since 1990. Transportation is also the largest end-use source of CO₂, which is the most prevalent greenhouse gas.¹³

Applicable LWVUS Position

The League supports “measures to reduce vehicular pollution including inspection and maintenance of emission controls, changes in engine design and fuel types and development of more energy-efficient transportation systems.”

Footnotes

1. “The Congestion Mitigation and Air Quality Improvement Program: Assessing 10 Years of Experience,” 2002, Transportation Research Board, National Research Council, The National Academies, pps. 38, 43, and 45.
2. “More Highways, More Pollution: Road Building and Air Pollution in America’s Cities,” www.uspirg.org/edfund/reports/reports/toxic-free-communities-reports
3. www.cdphe.state.co.us/ap/ozone/ozoneplan.phd
4. “League Disappointed by President Obama’s Ozone Retreat,” www.lwv.org/AM/Template.cfm?Section=Press_Release&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=17948
5. switchboard.nrdc.org/blogs/paltman/polls_obamas_ozone_retreat_dis.html
6. www.stateoftheair.org/2011/states/Colorado
7. www.cdphe.state.co.us/ap/ozone/ozoneplan.phd
8. American Lung Association, <http://www.stateoftheair.org/2011/health-risks/health-risks-ozone.html>
9. “PM₁₀ Maintenance Plan for the Denver Metropolitan Area,” www.cdphe.state.co.us/ap/down/sipdenverpm1005.pdf
10. www.stateoftheair.org/2011/health-risks/health-risks-particle.html
11. www.stateoftheair.org/2011/states/Colorado
12. “Greenhouse Gas Emissions from the U.S. Transportation Sector, 1990-2003” www.epa.gov/otaq/climate/420r06003.pdf
13. “Transportation and Climate Change,” www.epa.gov/otaq/climate/basicinfo.htm

HOW HIGHWAYS IMPACT WILDLIFE

As any Coloradan knows, highway infrastructure can reduce habitat, fragment migration corridors and present safety hazards for wildlife, as well as for drivers. Scientists are concerned that the fragmentation of habitat will lead to genetic isolation of species.

A Google search will reveal many sources discussing not only the impacts of transportation systems on wildlife and their habitat, but efforts around the world to deal with the issues. Some sources talk about the man-made structures that have been tried for funneling wildlife safely across barriers. They include specially-designed tunnels, bridges and viaducts. In Jefferson County, for instance, there is a wildlife crossing on US 285 near Conifer, and along Sixth Avenue in Golden.

Jefferson County's Final Comprehensive Master Plan includes these goals to protect wildlife:

- Support the preservation and/or protection of habitats, natural areas and movement corridors to maintain a healthy ecosystem and healthy wildlife populations.
- Minimize and/or mitigate impacts on wildlife and their habitats as development occurs. This goal includes a policy to "[c]onsider developing standards that address location of roads to minimize the impact of wildlife habitat and movement corridors."¹

The Federal Highway Administration environmental principles document includes these concerns about wildlife protection:

- How would the project reduce vehicle-caused wildlife mortality? What kinds of wildlife would benefit?
- How would the project maintain, improve, or restore habitat connectivity?
- How would the project benefit animal habitats?
- What vegetation management strategies would be used to reduce vehicle-caused wildlife mortality or enhance habitat connectivity?²

The Colorado Department of Transportation's (CDOT) Wildlife Program attempts to mitigate impacts on fauna, flora and ecosystems in general. "The Wildlife Program works not only with engineers and planners but also with the Colorado Division of Wildlife, U.S. Fish and Wildlife Service, USDA Forest Service, Bureau of Land Management, and others for the purpose of building the best transportation system in the intermountain west for man and beast."³

Applicable LWV Jeffco Position

LWV Jeffco Natural Resource positions define the standards for land use decisions to include the preservation of "natural areas which are characterized by unusual terrain or geological formations, unusual or native flora and fauna, scenic areas or vistas, wildlife habitats, fragile ecosystems, or water resources."

Footnotes

1. jeffco.us/jeffco/planning_uploads/comp-plan/final/comp_master_plan.pdf
2. www.fhwa.dot.gov/environment/te/principles_pt2.htm#tea11
3. www.coloradodot.info/programs/environmental/wildlife

HIGHWAY SAFETY CHALLENGES

Increased numbers of vehicles on new and expanded highways bring increasing safety challenges. Organizations such as the U.S. Public Interest Research Group call for any highway contracts to include a provision requiring state-of-the-art maintenance and safety standards, not just adherence to statewide minimums.¹ In "21st Century Transportation for America," USPIRG addresses the crumbling state of our highways and the structural instability of many bridges.²

To help address some of the safety and maintenance issues, The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law on August 10, 2005. It is the largest surface transportation investment yet, at \$244.1 billion for highways, highway safety, and public transportation. SAFETEA-LU's features include:

- o A new core Highway Safety Improvement Program to reduce highway fatalities. Funds have been nearly doubled for infrastructure safety.
- o A focus on congestion relief. It is pervasive, affecting mobility and productivity, the environment, and our quality of life.
- o States have more flexibility to use tolling, not only to manage congestion, but to finance infrastructure improvements. Pricing strategies consider varying toll levels by time of day or traffic volume in order to manage congestion.³

In Colorado, the 2009 legislation, Funding Advancement for Surface Transportation & Economic Recovery (FASTER), established the Road Safety Fund. Road Safety eligible projects are defined as construction, reconstruction or maintenance that the Transportation Commission determines is needed to enhance the safety of a state highway, a county determines is needed to enhance the safety of a county road, or a municipality determines is needed to enhance the safety of a city street.⁴

The Colorado Department of Transportation addresses pedestrian safety on state highways. Options available to enhance pedestrian safety include appropriate signage and pavement markings, pedestrian signals, lighting, behavioral education projects and establishment of safe walking routes and school zones.

The Colorado Office of Transportation Safety (OTS) is responsible for developing and implementing the state's Highway Safety Improvement Program. You have seen their signs: "Click-It or Ticket"; "The Heat is On." According to OTS, in 2007 Colorado had the 13th lowest fatality rate of all states. We ranked 29th lowest in the year 2000.⁵

Applicable LWV Colorado Position

When expanding or building a new transportation entity, including a regional airport, consideration must be given to safety, access, availability, affordability, impact on existing land uses, noise, and the needs of regional, county and local governments.

Footnotes

1. "Private Roads, Public Costs," cdn.publicinterestnetwork.org/assets/H5QI0NcoPVeVJwymwIUrrw/Private-Roads-Public-Costs.pdf
2. www.uspirg.org/issues/transportation/more-and-better-transit/transportation-principles-signers/21st-century-transportation-for-america
3. www.fhwa.dot.gov/safetealu/summary.htm
4. Elected Officials Guide to the Colorado Department of Transportation," www.coloradodot.info/about/governmentrelations/news-publications/EOG%202011%20FINAL.pdf/at_download/file

HIGHWAYS AND NOISE

The Federal Highway Administration takes noise pollution seriously:

Noise, defined as unwanted or excessive sound, is an undesirable by-product of our modern way of life. It can be annoying, can interfere with sleep, work, or recreation, and in extremes may cause physical and psychological damage. While noise emanates from many different sources, transportation noise is perhaps the most pervasive and difficult source to avoid in society today. Highway traffic noise is a major contributor to overall transportation noise. A broad-based effort is needed to control transportation noise. This effort must achieve the goals of personal privacy and environmental quality while continuing the flow of needed transportation services for a quality society.

Here are federal efforts to address noise pollution:

- The Noise Control Act of 1972 gives the Federal Environmental Protection Agency the authority to establish noise regulations to control major sources of noise, including transportation vehicles and construction equipment. In addition, this legislation requires EPA to issue noise emission standards for motor vehicles used in interstate commerce (vehicles used to transport commodities across state boundaries) and requires the Federal Motor Carrier Safety Administration to enforce these noise emission standards.
- The National Environmental Policy Act of 1969 provides broad authority and responsibility for evaluating and mitigating adverse environmental effects including highway traffic noise.
- A more important federal legislation which specifically involves abatement of highway traffic noise is the Federal-Aid Highway Act of 1970. This law mandates FHWA to develop noise standards for mitigating highway traffic noise.
- The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways require the following during the planning and design of a highway project: 1) identification of traffic noise impacts; examination of potential mitigation measures; 2) the incorporation of reasonable and feasible noise mitigation measures into the highway project; and 3) coordination with local officials to provide helpful information on compatible land use planning and control.¹

Road noise reduction efforts include sound barrier walls, below-grade roads, reducing speed limits, rubberized asphalt, and earth mounds with plantings. The FHWA points out that control of highway noise also requires proper land use planning, which is the responsibility of local government.

The Colorado Department of Transportation assesses existing and future noise levels for major highway improvements as required by federal law.²

Jefferson County has a policy on noise barriers. They cannot be a wall, but a fence or berm can be requested by petition along an arterial road.³

Applicable LWV Colorado pPosition

When expanding or building a new transportation entity, including a regional airport, consideration must be given to safety, access, availability, affordability, impact on existing land uses, noise, and the needs of regional, county and local governments.

Applicable LWV Jeffco Position

Support of implementation of noise standards by local governments with adequate funding for enforcement.

Footnotes

1. "Highway Traffic and Construction Noise – Problem and Response," www.fhwa.dot.gov/environment/noise/regulations_and_guidance/probresp.cfm
2. www.coloradodot.info/programs/environmental/noise
3. jeffco.us/jeffco/cadm_uploads/policiesandprocedures/8_1_2_Noise.pdf

PUBLIC TRANSPARENCY

Openness in government is a quintessential principle of the League of Women Voters at every level of our organization.

Transparency is a metric that evaluates the effectiveness of processes used to enable county government to serve the interests of the citizens, property owners, voters, and other county stakeholders. In 2006 Colorado voters passed a ballot measure to create the Colorado Independent Ethics Commission (EIC).¹

Residents and taxpayers need to be able to gauge adequately whether a county government is:

- Effective.
- Competent.
- Frugal with tax revenues
- Compliant with all expectations and relevant laws about public records and open meetings.

In order for this to happen, residents and taxpayers need to be assured that their elected officials and the hired professional staff are making decisions that are in the best interests of county citizens as stakeholders.

County residents also need to understand the decision making process used by the county commissioners regarding planning and zoning issues. This process starts with a clear statement of vision on how the county is being governed.

According to the Sunlight Foundation – which is devoted to making government transparent and accountable – the following parameters can be used to gauge the transparency of government agencies. The information should be available on agency websites.

- Current budget
- Open meeting laws
- Names and biographies of elected officials
- Names of key administrative officials and their contact information
- Building permits and zoning requirements
- Regular audit information
- Rules governing contracts
- Lobbyist information
- Name and contact information for the person who is in charge of fulfilling open records requests
- The central location of all tax information.²

Citizen Review Panels

The LWV Jeffco studied county financing issues in 2011. The report entitled “County Finance: Budgeting in Hard Times” included the following information about the establishment and ultimate dissolution of citizen review panels.³

In 2007 the Citizens Budget Review Panel was created by the commissioners to provide an independent review and analysis of county finances. They selected a 12-member panel which looked into all aspects of the budget and presented a list of nearly two dozen general fund savings to the county. Two years later, the panel was reconvened to look at the capital needs and proposed projects. After months of study, they also made recommendations, including one to reject a tax increase for any capital construction projects. The Citizen Budget Review Panel was not asked to help with the 2011 or 2012 budget process. It will be up to the commissioners to determine if the citizen panel will ever reconvene.

[The county’s audit panel], consisting of citizens and elected officials, worked with independent accountants who audited the county’s finances and its federally funded programs. They also created and monitored the county’s internal controls to prevent fraud and ensure compliance with state and federal laws. [The panel was eliminated in 2011, six years after its establishment.] The county commissioners stated they were merely eliminating a redundant program, and believe that the county’s own accountants can review external audits along with the board of commissioners.

About the County Planning Commission

- Planning Commissioners make recommendations to the Board of County Commissioners on a wide variety of land use applications, including re-zonings, special uses, special district service plans, subdivision plats and updates. The County Commissioners adopt the County's Comprehensive Master Plan.
- The Planning Commission is made up of volunteers that typically include seven regular members and two associate members who are appointed by the Board of County Commissioners. Regular members of the Planning Commission are typically appointed for three year terms and associate members are appointed for one year terms.

Ethics issues

All ethics issues that arise within the county are addressed by the Colorado Independent Ethics Commission.

The IEC is a constitutionally created independent commission and is charged with giving advice and guidance on ethics issues. The members of the IEC are appointed by the Governor, the Chief Justice of the Colorado Supreme Court, the Senate, the House of Representatives and the IEC itself. The Commission has jurisdiction over all state executive and legislative branch elected officials and employees, unless the county or municipality is a home-rule entity with its own ethics code. The Transparency Online Project System provides public access to information on Colorado State government expenditures (where the money is spent) and revenue (where the money comes from).⁴

The Sunlight Foundation Review process is very useful for summarizing transparency issues and also offers a quick means for comparisons between counties and for documenting improvements from year to year. It includes suggestions for what must take place before any decision-making process begins.⁵

Applicable LWVUS Principle

The League of Women Voters believes that democratic government depends upon the informed and active participation of its citizens and requires that governmental bodies protect the citizen's right to know by giving adequate notice of proposed actions, holding open meetings and making public records accessible.

The LWVUS Position on Open Government

The League of Women Voters believes that open and accountable government is the cornerstone to a healthy democracy. For decades, the League has worked to ensure openness by monitoring local government; advocating for public policy on transparency; promoting freedom of information; and conducting public document audits.

Footnotes

1. www.colorado.gov/cs/Satellite/DPA-IEC/IEC/1251597367962
2. sunshinereview.org
3. Every Member Material, September, 2011.
4. For further information go to tops.state.co.us. Source: www.colorado.gov/ethicscommission.
5. www.sunlightfoundation.com

HOW JEFFERSON COUNTY FINANCES TRANSPORTATION INFRASTRUCTURE

There are numerous traditional sources for funding roadways in Jefferson County. They are primarily user-related fees and taxes. There's a new twist with so-called Public Private Partnerships to be considered in this era of dwindling financial resources.

Kevin French, Director of Jeffco's Transportation & Engineering Department, summarized in an email to our committee the following categories that pay for additional capacity and safety enhancements in the county.¹

Road & Bridge Funds

Funds in this category are generated by gas taxes (50%), property tax mill levy (35%) and other (15%) such as license fees and permits. Colorado's 2009 transportation legislation, Funding Advancement for Surface Transportation & Economic Recovery, generates funds through license plate fees for safety improvements and bridge repairs. These revenues also go into the Road & Bridge Fund. (FASTER funds provided the first increase in 20 years for Colorado transportation infrastructure.)

Impact Fee Funds

State lawmakers gave local governments the authority to impose impact fees on new development.²

Southeast Local Improvement District

Jefferson County residents approved a local improvement district funded by a 1/2-cent sales tax for specific projects within the area roughly bounded by US285, C470, and the east county line.

Federal Funds

Jefferson County can apply for and has received federal funds for various projects. A local match is required.

SAFETEA-LU

is the federal surface transportation bill, which is reauthorized by Congress approximately every 6 years. It authorizes spending from the Highway Trust Fund (HTF). It defines the portion of federal funds states receive for maintaining and improving roadways. The 2005 legislation ran out in 2009, but received an extension of six months in September 2011. The Highway Trust Fund has been propped up by supplements since 2009 because the federal gas tax has not been sufficient to fund spending required under SAFETEA-LU.³ In Colorado, the funds are controlled by CDOT and DRCOG. In Jefferson County, one earmark in the earlier legislation paid for improvements at the intersection of Wadsworth Boulevard and Bowles Avenue.⁴

Colorado Department of Transportation revenue sources include the state Highway Users Tax Fund (HUTF), federal funds such as the Highway Trust Fund, FASTER, and other lesser sources including gaming funds and capital construction funds.⁵ HUTF – the primary source of funds for state and local governments – includes revenues mainly from the motor fuel excise tax, currently 22 cents per gallon for the state and 18.4 cents federal. Colorado's gas tax has not increased in twenty years.

Twenty-six percent of the monies in the Highway Users Tax Fund, established by Colorado lawmakers in 1953, are distributed to counties. Counties received 20.2 percent of CDOT's \$982.7 million distributed in FY 2011.

Stimulus spending, under the American Recovery and Reinvestment Act of 2009 (ARRA), brought over \$533 million to the state. CDOT's share was approximately \$386 million in federal highway funding and another \$12.5 million in federal transit funding for transit projects in rural areas. The ARRA also provided additional funding directly to transit agencies and to three large metropolitan planning organizations in the Colorado – the Denver Regional Council of Governments, Pikes Peak Area Council of Governments, and the North Front Range Metropolitan Planning Organization.⁶ CDOT's spending of ARRA funds in Jefferson County will amount to \$14,417,579 when all projects are completed. In addition, Arvada received \$600,000 from ARRA, and Lakewood received \$200,000.⁷ Because the motor fuel tax no longer provides sufficient funds for deteriorating and new roadways, Colorado has sought other sources of funding. In particular, Public Private Initiatives (PPIs) – now called Public-Private Partnerships – have become more popular. According to CDOT, "PPIs are joint partnerships that can be formed between a private entity and CDOT to implement transportation projects funded mostly by private dollars. If a private entity is awarded a project, some or all of the financing and design/construction are the responsibility of that entity. Before the initiation of construction, CDOT must complete the appropriate environmental studies and clearances, as well as meet applicable state and federal requirements."⁸

Colorado's Public Highway Authority Law of 1987 allows cities and counties to enter into intergovernmental agreements to form Public Highway Authorities (PHAs) to finance, build and operate roadways. The Northwest Parkway and E-470 are PHAs, and the proposed Jefferson Parkway is also a PHA and will be run as a toll road.

FASTER reconstituted the Colorado Tolling Enterprise as the High Performance Tolling Enterprise (HPTE), and charged it with aggressively seeking opportunities to use public-private partnerships. As an example, HPTE is currently seeking partners to design and build improvements for the congestion along U.S. 36 between Boulder and Denver. HPTE's tolling jurisdiction also includes the I-25 HOV lanes.⁹

Transportation Public-Private Partnerships

PPPs can renovate existing roads or build new ones. They have the right to charge tolls, and in many contracts, collect that money for decades. The Chicago Skyway serves as an example of assuming the responsibility for existing roadways. An Australian-Spanish consortium won a competition in 2004 to operate the 7.8 mile toll road. The consortium paid nearly \$2 billion and assumed a 99-year operating lease. The concessionaires will pay operating and maintenance costs, and will retain the right to all toll and concession revenue.¹⁰ Most of the money received by Chicago went to paying off outstanding debt, which increased the city's bond rating. In Colorado, the Northwest Parkway Public Highway Authority (NPPHA) leased the rights to the toll road to a Portuguese and Brazilian consortium with a 99-year operating agreement. A 2007 *Business Week* article explained that the NPPHA had run up a debt of \$416 million for the 10-mile toll road before the leasing rights were conferred.¹¹

There are both supporters and detractors of Public-Private Partnerships (PPPs). Because the Jefferson Parkway Public Highway Authority is seeking partners to both build and operate the proposed 10-mile Jefferson Parkway between SH 93 and SH 128, we address the pros and cons of PPPs in this study.

Why PPPs are a Good Idea

The primary benefits of using PPPs according to the Federal Highway Administration are:

- o Expedited completion compared to conventional project delivery methods;
- o Project cost savings;
- o Improved quality and system performance from the use of innovative materials and management techniques;
- o Substitution of private resources and personnel for constrained public resources; and,
- o Access to new sources of private capital.¹²

FHWA points to the success of the completion of segments 2, 3 and 4 of Denver's E-470 toll road. The E-470 Authority partnered with Morrison Knudsen to design and build those segments. The project was completed ahead of time, and came in on budget.¹³ Taxpayers had originally turned down funding for E470.

The National Council for Public-Private Partnerships says that "the public's interests are fully assured through provisions in the contracts that provide for on-going monitoring and oversight of the operation of a service or development of a facility. And that "while tolling is one means of generating the revenue to cover the investment, in a number of cases Transportation Oriented Development (TOD) of adjacent properties can provide a significant portion of the revenue stream."¹⁴

Why PPPs Can Be a Problem

In *Private Roads, Public Costs*, the U.S. Public Interest Research Group acknowledged the appeal of a quick fix for state budget challenges, but warn about the potentially long-term harm to the public interest. They recommend conditions only under which state and local governments should consider PPPs for new roadways (never existing roadways). They include:

- The public should retain control over decisions about transportation planning and management.
- No deal should last longer than 30 years because of uncertainty over future conditions and because the risks of a bad deal grow exponentially over time. USPIRG cites an analysis of the Chicago Skyway deal which found that private investors would likely recoup their investments in less than 20 years although they have a 99-year contract.
- Contracts should require state-of-the-art maintenance and safety standards instead of statewide minimums.
- There must be complete transparency to ensure proper public vetting of privatization proposals.¹⁵

They also warn against contracts that include non-compete clauses, as in the Northwest Parkway contract. That 99-year lease allows the concessionaire to be compensated if road improvements on the arterials lower toll road use, and thus revenues.

The Brookings Institution, the Environmental Defense Fund, and many more on-lookers take on the issue of PPPs in a very analytical way. Most have many questions about how they operate according to what is expected of them in each case. As an example, Brookings says this: "The major and legitimate concern with privatization is that private firms would be able to set excessive prices and drastically cut service because they face little competition or that they might experience serious financial difficulties."¹⁶

Even the U.S. Department of Transportation Inspector General is concerned. In *Financial Analysis of Transportation-related Public Private Partnerships* of July 28, 2011, the following points are raised:

- PPPs have a higher cost of capital than traditional public financing, and they incur certain tax obligations that do not exist for public entities.
- We found that PPPs are not likely to significantly decrease the infrastructure funding gap because private sector investment in transportation through PPPs generally does not entail new or incremental funds. Rather, the funds paid upfront to the public sector under a PPP are paid in exchange for future revenues, often in the form of tolls.¹⁷

Here is an interesting finding from a Rockefeller Foundation public survey conducted at the beginning of 2011 about transportation:

With overwhelming support for transportation and infrastructure improvements, Americans are open to several funding streams. Seventy-eight percent encourage more private investment and 72% of voters support imposing penalties on projects that go over budget or exceed their deadline. Sixty percent of voters support establishing a National Infrastructure Bank, 59% support issuing new transportation bonds and 58% support eliminating subsidies for American oil companies that drill in other countries. Only 27 percent support increasing the gas tax, although almost half of all respondents believe it increases annually (it has not increased since 1993).¹⁸

Applicable LWV Colorado Positions

- The Highway Trust Fund [funded by the federal gas tax], the [Colorado] Highway Users Tax Fund, Regional Service Authority Funds, and local funds should be used to finance transportation.
- New revenue sources as needed should be considered, including but not limited to user fees, appropriations from the General Fund, revenue bonds, and private funds.

Footnotes

1. Kevin French, personal email, September 21, 2011
2. Jeffco Policies and Procedures, jeffco.us/jeffco/cadm_uploads/policiesandprocedures/8_4_1_traffic_impact_fees.pdf
3. "Transportation Extensions Pass, State Plans for 2013 Cuts," www.alaskajournal.com/Alaska-Journal-of-Commerce/September-2011/Transportation-extensions-pass-state-plans-for-2013-cuts/
4. Kevin French, personal email, October 6, 2011
5. "Elected Officials Guide to the Colorado Department of Transportation," www.coloradodot.info/about/governmentrelations/news-publications/EOG%202011%20FINAL.pdf/view
6. The American Recovery and Reinvestment Act (ARRA), www.coloradodot.info/projects/arra
7. CDOT ARRA Projects, *Id.*
8. "Elected Officials Guide to the Colorado Department of Transportation," *Op. Cit.*
9. Federal Highway Administration, www.fhwa.dot.gov/ipd/project_profiles/co_us36_managed_lanes.htm
10. www.chicagoskyway.org
11. "Roads to Riches: Why Investors Are Clamoring to Take Over America's Highways, Bridges, and Airports –and Why the Public Should Be Nervous," www.businessweek.com/magazine/content/07_19/b4033001.htm
12. www.fhwa.dot.gov/ipd/p3/faqs/index.htm
13. www.fhwa.dot.gov/reports/pppdec2004/#appd2
14. www.ncppp.org/presskit/g&a.shtml
15. cdn.publicinterestnetwork.org/assets/H5QI0NcoPVeVjwymwIUrrw/Private-Roads-Public-Costs.pdf
16. "The Private Sector Can Improve Infrastructure with Privatization Not Bank," www.brookings.edu/opinions/2010/0929_infrastructure_privatization_winston.aspx
17. www.oig.dot.gov/libray-item/5599
18. "Rockefeller Foundation Infrastructure Survey Reveals Bipartisan Support Transportation and Infrastructure Investments and Reform," www.rockefellerfoundation.org/news/press-releases/rockefeller-foundation-infrastructure

CONSENSUS QUESTIONS

Assuming that roads and highways will need to be built, improved, or maintained, please consider what areas of interest or impact must be considered when a community is facing the decision of when, where, how, and with what money to build or improve a public road.

1. Before a road is built or improved the following needs should be assessed (circle all that apply)
 - a. Efficient movement of people and goods
 - b. Safety of the road itself
 - c. Safety of the surrounding community
 - d. Economic needs of the community
 - e. Economic well-being of the community
 - f. Other (list) _____

2. Before a road is built or improved the following costs should be assessed (circle all that apply)
 - a. The projected cost in dollars
 - b. The estimated environmental costs (circle all that apply)
 - 1) Air quality
 - 2) Water quality
 - 3) Wetland destruction
 - 4) Noise levels
 - 5) Wildlife habitat and corridors
 - 6) Scenic vistas
 - 7) Other (list) _____
 - c. Social concerns (circle all that apply)
 1. Isolating communities
 2. Dividing communities
 3. Aesthetics
 4. Access to services

3. Before a road is built the following specific long term implications should be assessed (circle all that apply)
 1. Concurrence with the overall long term land use plans for the area
 2. Need for compliance with accepted and legal standards (i.e. air quality)
 3. Consideration of the larger community including flora, fauna, humans.
 4. Consideration of any and all alternatives to the proposed road planned (public transit, bike paths, etc.)
 5. Mitigation possibilities regarding all undesirable costs (see #2)
 6. Transparency of the planning process, all phases of construction, and long term operation
 7. Hidden costs, such as future completion requirements (e.g. interchanges)
 8. Risk of default by contractor and/or investors for the life of the program
 9. Governmental oversight
 10. Other (list) _____

4. Before a road is built or improved the following financing alternatives should be assessed (circle all that apply)

1. Fees- licenses and permits
2. Taxes
3. Impact fees
4. Special districts
5. Federal funds
6. Public Highway Authorities through their agreements (PHA)
7. Public Private Partnerships (PPP)
8. Tolls
9. Bonds
10. Other (list)_____

5. If Public-Private Partnerships are used to finance new roads or highways, which conditions should be included: (circle all that apply)

1. The public should retain control over transportation planning and management,
2. No deal should last longer than 30 years.
3. Contracts should require state-of-the-art maintenance and safety standards.
4. There must be complete transparency in the process.
5. There should be no non-compete clauses in the contract.
6. Other (list)_____

State what further comments and questions your group wishes the committee to consider before developing the formal position statement.

ACRONYMS and DEFINITIONS

ALA	American Lung Association
ARRA	American Recovery and Reinvestment Act
CDOT	Colorado Department of Transportation
DRCOG	Denver Regional Council of Governments
EA	Environmental Assessment - Includes a brief discussion of the need for a proposed action, potential alternatives, and the environmental impacts of the proposed action.
EIS	Environmental Impact Statement -The process of developing detailed environmental document required by the National Environmental Policy Act (NEPA) when an agency proposes an action that is likely to significantly affect the environment. The EIS includes a discussion of purpose and need, alternatives, environmental conditions and effects, and public involvement activities. The document is completed as a draft and presented to the public before a final preferred alternative is determined.
EPA	Environmental Protection Agency - The federal agency responsible for regulating and enforcing federal environmental laws including the Clean Air Act, the Clean Water Act, and the Endangered Species Act among others.
FASTER	Funding Advancements for Surface Transportation and Economic Recovery - Colorado's 2009 legislation establishing the Road Safety Fund. Eligible projects are defined as construction, reconstruction or maintenance that the Transportation Commission determines is needed to enhance the safety of a state highway, a county determines is needed to enhance the safety of a county road, or a municipality determines is needed to enhance the safety of a city street.
FHWA	Federal Highway Administration - A division of the U.S. Department of Transportation that administers the Federal-aid Program, which provides funding to states to construct and improve highways, bridges, and urban and rural roads.
GHG	Greenhouse Gases - Any of the atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth's surface. They include carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (NO ₂), and water vapor.
HTF	Highway Trust Fund - A financing mechanism established by law to account for tax receipts that are collected by the federal government for transportation needs and is funded primarily by a federal fuel tax.
HUTF	Highway Users Tax Fund - The major source of revenue for CDOT, which is funded through Colorado's motor fuel tax, motor vehicle registrations and other fees.
IEC	Colorado Independent Ethics Commission
NEPA	National Environmental Policy Act - A national policy requiring any project using federal funding or requiring federal approval, including transportation projects, to weigh the impacts to the environment on proposed and alternative choices before a decision is made.
NWPPHA	Northwest Parkway Public Highway Authority
NO_x	Nitrogen oxides - Nitrogen oxides, formed during the combustion of fossil fuels, are mainly nitric oxide (NO) and nitrogen dioxide (NO ₂), together commonly referred to as NO _x .
PM	Particulate matter - The term used for a mixture of solid particles and liquid droplets suspended in the air. They originate from a variety of sources including diesel trucks, industrial processes and power plants.
PPPs	Public-Private Partnerships - Joint partnerships that can be formed between a private entity and CDOT to implement transportation projects funded mostly by private dollars. The Colorado General Assembly gave CDOT the authority to become involved in PPPs.
SAFETEA-LU	Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users - A 6-year federal transportation authorization bill signed into law on August 10, 2005 to approve spending from the Highway Trust Fund.
VOCs	Volatile Organic Compounds - Organic chemical compounds which have significant vapor pressures and which can affect the environment and human health. They include both man-made and naturally occurring chemical compounds. The majority of VOCs are produced by plants, the main compound being isoprene. The remainder are produced by animals, microbes, and fungi, such as molds. A major source of man-made VOCs are solvents, especially paints and protective coatings.

APPENDIX A

JEFFERSON PARKWAY DOCUMENTS / LWV JEFFCO *(NOT INCLUDED BUT AVAILABLE FOR REFERENCE)*

- Sustainability Every Member Material, December 2009 and April 2010
- Jefferson Parkway and Dinosaur Ridge Every Member Material, April 2011
- LWV Jeffco Guest Commentary, *The Denver Post*, May 21, 2010
- Jefferson Parkway Update, LWV Jeffco Newsletter, Spring 2011 and July 2011

APPENDIX B

APPLICABLE LWV PRINCIPLES, POSITIONS AND STANDARDS

Land Use

Applicable LWV Colorado position

When planning for a balanced transportation system, DOT [Department of Transportation] should consider social, governmental, economic, and environmental factors. When expanding or building a new transportation entity, including a regional airport, consideration should be given to safety, access, availability, affordability, impacts on existing land uses, noise, and the needs of regional, county, and local governments

Water

Applicable LWVUS position

Water Resources: The League supports “measures to reduce water pollution from direct point-source discharges and from indirect nonpoint sources.”

Air Quality

Applicable LWVUS position

The League supports “measures to reduce vehicular pollution, including inspection and maintenance of emission controls, changes in engine design and fuel types and development of more energy-efficient transportation systems.”

Wildlife

Applicable LWV Jeffco position

Jeffco LWV Natural Resource positions define the standards for land use decisions to include the preservation of “natural areas which are characterized by unusual terrain or geological formations, unusual or native flora and fauna, scenic areas or vistas, wildlife habitats, fragile ecosystems, or water resources.”

Safety

Applicable LWV Colorado position

When expanding or building a new transportation entity, including a regional airport, consideration must be given to safety, access, availability, affordability, impact on existing land uses, noise, and the needs of regional, county and local governments.

Noise

Applicable LWV Colorado position

When expanding or building a new transportation entity, including a regional airport, consideration must be given to safety, access, availability, affordability, impact on existing land uses, noise, and the needs of regional, county and local governments.

Applicable LWV Jeffco position

Support of implementation of noise standards by local governments with adequate funding for enforcement.

Transparency

Applicable League of Women Voters principle

The League of Women Voters believes that democratic government depends upon the informed and active participation of its citizens and requires that governmental bodies protect the citizen’s right to know by giving adequate notice of proposed actions, holding open meetings and making public records accessible.

The LWVUS on Open Government

The League of Women Voters believes that open and accountable government is the cornerstone to a healthy democracy. For decades, the League has worked to ensure openness by monitoring local government; advocating for public policy on transparency; promoting freedom of information; and conducting public document audits.

Financing

Applicable LWV Colorado positions

The Highway Trust Fund [funded by the federal gas tax], the [Colorado] Highway Users Tax Fund, Regional Service Authority Funds, and local funds should be used to finance transportation. New revenue sources as needed should be considered, including but not limited to user fees, appropriations from the General Fund, revenue bonds, and private funds.