Bridges and Roads Taskforce - August 12, 2015 Questions & Answers - Meeting #1

Recognizing the Task Force has limited meeting time to identify the most significant solutions for operating, maintaining and preserving the aging bridge and road system in unincorporated King County, the county will provide additional answers to detailed technical questions in writing. Staff is also available to discuss technical issues with Task Force members. The presentations during Task Force meetings will highlight the most significant issues for consideration, and if desired, the Task Force can request additional presentations and modify agendas for upcoming meetings. Questions answered during the meetings are not included in written materials.

Financial Information

Q: How will revenue from the recent state transportation bill be distributed?

A: For the first time in ten years, the state legislature has added new revenue to address a backlog of transportation projects in jurisdictions throughout the state. The new transportation bill adds over \$16 billion for transportation investments across the state over the next 16 years and gives Sound Transit the authority to seek voter approval of \$15 billion to implement Sound Transit 3.

Beginning August 1st, 7 cents will be added to the existing state gas tax with a second increase of 4.9 cents on July 1, 2016. Coupled with numerous fees and bonding, this generates more than \$16 billion over the 16 years of the revenue package.

This spending package primarily focuses on investments to the state highway system, with little funding going to local agencies. About \$8.6 billion is dedicated to highway improvements including completing regionally significant projects like SR520 bridge corridor west end, additional lanes for I-405, completing the SR167/SR509 corridors, and more I-90 Snoqualmie Pass improvements. An additional \$1.4 billion goes to state highway maintenance, operations and preservation.

Cities and counties will receive about \$515 million for local roads and bridges. King County will receive direct allocations of about one-half million dollars in years 2016 and 2017 rising to \$1 million per year between 2018 and 2031 for a total of \$16 million over 15 years. The county can compete for Washington State County Road Administration Board (CRAB) funds, and Washington State Transportation Improvement Board (TIB) funds with the rest of the state, although eligibility criteria favor urban areas and King County has not been successful in grant applications for a number of years.

Public transportation and multimodal programs receive about six percent of the total funding

contained in this package - \$983 million. Local rail improvements receive an additional \$174 million. Some of these multimodal investments are directly appropriated to projects, while most will be allocated through competitive grant programs.

In addition there is also \$15 billion in new revenue authority (not actual revenue, but the authority to ask voters for revenue) to allow the Sound Transit Board to develop and propose a voter-approved Sound Transit 3 package. Sound Transit 3 would include projects would work towards completing the spine of light rail going north to Everett, south to Tacoma and east to Redmond, Seattle projects to West Seattle and Ballard, and bus rapid transit on I-405.

New local authority also includes an increase from \$20 to a \$40 or \$50 councilmanic vehicle fee for transportation benefit districts.

A complete list of Central Puget Sound projects can be viewed <u>here</u>.

King County Road Services allocation:

- Total over the 16 years- \$15.9m
- Annual allocation:
 - **2016 \$498,954**
 - **2017 \$498,954**
 - 2018 to 2031 \$1,069.181 annually

Grant funding for bicycling and pedestrian improvements:

- Complete Streets \$106m King County eligible for competitive grants
- Safe Routes to School \$56m King County eligible for competitive grants
- Bike/Ped grant program \$75m King County eligible for competitive grants

Transportation Benefit District (TBD) Authority Changes:

Councilmanic TBD authority is expanded up to \$50 in certain circumstances.

- Cities and Counties can absorb TBDs rights, powers, functions, and obligations
- Allows a \$40 councilmanic vehicle fee after 2 years of \$20 councilmanic vehicle fee
- Allows a \$50 councilmanic vehicle fee after 2 years of \$40 councilmanic vehicle fee, but allows voters to force election with 8% of signatures
- Overlapping TBDs must credit first \$50 to pre-existing TBDs if second TBD uses councilmanic authority.

Q: How many tag parcels are available to sell to raise revenue?

A: Road Services Division currently has 111 surplus parcels varying from 0.01 to 123 acres in size. The one large property has a potential sale vale of \$20 million while the remaining 110 combined have an approximate sales value of \$9 million. Because these property sales are one-

time revenue, under council adopted policies, revenues should be spent on capital investments.

Q: How is gas tax revenue distributed in Washington, and how much is paid by unincorporated residents?

A: Next summer, the state gas tax will increase by 4.9 cents a gallon, putting the total state tax at 49.4 cents per gallon. Combined with the current federal gas tax of 18.4 cents, the total per gallon gas tax in Washington will be 68.3 cents per gallon.

In 2013, the Washington State Department of Transportation (WSDOT) did a county-by-county analysis of where gas tax is collected across the state and where it is spent. Using methodologies described below, it is estimated residents of unincorporated King County will pay approximately \$83 million, annually, in state and federal gas taxes.

The WSDOT county-by-county comparison included state and federal transportation funds that was used by WSDOT for projects in each county and appropriated state and federal grants provided to local governments. The WSDOT comparison included the use of MVFT tax revenue, including the 2003 Nickel package and the 2005 Transportation Partnership package, within each County and the use of ferry fares, bond proceeds, interest, and license, permit and fee revenues. Revenues derived from local taxes and fees and expended on city streets, county roads or public transportation are not included in WSDOT's comparison.

WSDOT's comparison showed for every dollar contributed by King County residents, \$0.95 was returned to King County through transportation investments by the State, King County, and cities within the County. We have used this calculation as a proxy to determine where the state and federal gas taxes collected from unincorporated King County residents were spent.

Direct statutory distributions of state motor vehicle fuel tax (MVFT), and a six year average of anticipated federal grant receipts, (funded by federal MVFT) based on Roads adopted 2015-2020 financial plan, indicate that Roads will receive approximately \$16 million per year for investment in the County's road system.

The remaining \$59 million per year will be invested in King County transportation projects by other transportation agencies. This includes funding for the maintenance, preservation, and operation of the state highway and ferry systems (including debt payments), investments in City infrastructure, and state grant programs.

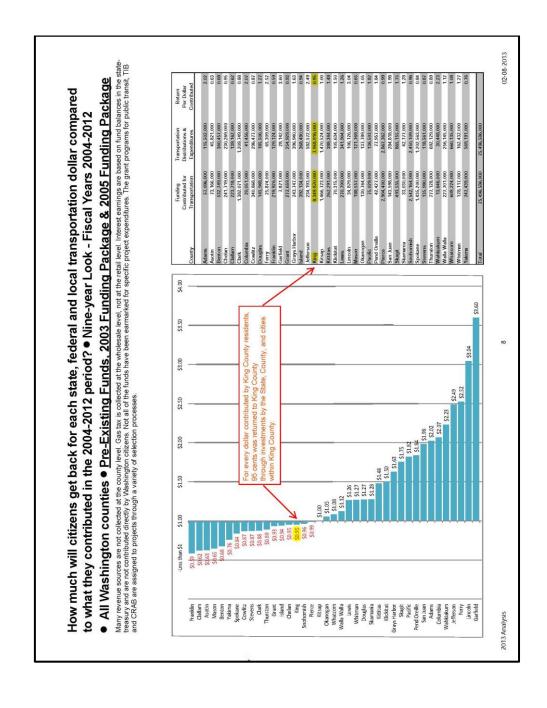
As required by State law, MVFTs are not collected at the pump; rather, they are collected upstream at the point of distribution before they are shipped to retail fueling stations. This makes it difficult to accurately determine fuel sales by city or county. Total MVFT collected in FY

2014 was \$1,264,797,056, and the total state population was 6,960,170 (April 1, 2014 state Office of Financial Management population estimates). In 2014, Washington residents bought about 485 gallons of gas on a per capita basis.

Based on gallons of gas bought on a per capita basis, unincorporated King County residents will pay about \$60 million in state MVFT (49.4¢ per gallon) on an annual basis.

The Federal fuel tax is 18.4¢/gallon. Revenues are deposited into the Federal Highway Trust Fund (HTF). The HTF is financed from a number of sources including sales taxes on tires, trucks and trailers and heavy vehicle use taxes. However, approximately 90% of trust fund revenue comes from excise taxes on motor fuels. Over 90% of the highway program funding under MAP-21 is distributed by formula and is under the control of the each state's transportation department and regional planning organizations.

Based on gallons of gas on a per capita basis, unincorporated King County residents will pay about \$23 million in federal MVFT on an annual basis. There is no direct distribution of federal MVFT back to King County; any federal money coming back to King County is in the form of road grants, bridge grants, or Federal Housing Administration emergency relief grants.



Q: What is the relationship between the county's surface water management (SWM) program and Roads, and are surface water fees available to pay for projects in the right of way?

A: Stormwater runoff can have impacts such as flooding, erosion, pollution, habitat degradation, and low stream flows. To protect public health and safety and improve water quality, King County works with residents and businesses to manage stormwater runoff and offer drainage assistance. These services are funded by revenues from a fee assessed on property owners in unincorporated King County.

Some of the services provided include:

- Design and construct capital projects to improve drainage and water quality, stabilize ravines, and restore fish and wildlife habitats.
- Respond to and resolve more than 1,000 customer service calls per year regarding flooding, water quality problems, and erosion.
- Offer drainage assistance to farmers and neighborhoods.
- Work with commercial business owners, farmers, livestock owners, and forest land owners to implement "best management practices."
- Maintain or inspect more than 2,000 flow control and water quality facilities such as retention/detention ponds, bio-swales, and off-road ditches.
- Comply with a state permit required by the federal Clean Water Act, including developing regulations for new construction to protect water quality.

More information on this program is available at: http://www.kingcounty.gov/depts/dnrp/wlr/surface-water-mgt-fee.aspx

Roads pays a surface water fee based upon a calculation of impervious surface and other factors. The physical structure of roads and bridges play a role in management of stormwater and the management of water pollutants, contributing to the goals of surface water programs. Government agencies in this state differ in their approach to surface water fee calculation for roads, and surface water fees are often used in part to fund projects in the right of way. In recent budgets, the County Council has directed some surface water program revenues to projects related to stormwater management that are in the right of way.

Q: What are the costs or expenditures included in "non-discretionary" spending in the Roads chart related to revenues and need?

A: Road Services has several types of fixed costs that must be accounted for in the budget before remaining funds can be allocated to projects and programs. These include expenses such

as: debt service for completed capital projects, rates and fees paid to other county agencies for central services such as IT and financial systems, stormwater management fees, and funds transferred to the King County Sheriff's office for traffic law enforcement services.

- Q: How is King County a net exporter of tax revenues?
- Q: What is the history of factors that have led to the current funding gap, including citizen initiatives?
- A: Detailed information on these questions will be provided in Task Force Meeting #2

King County Road Services - Operations

- Q: How does the county define critical safety work?
- **A:** Critical safety goals and strategies are defined in the 2014 Strategic Plan for Road Services (available in the materials provided prior to meeting one).

Goal 1: Prevent and respond to immediate operational life safety and property damage hazards. Immediate operational life safety hazards are situations or road conditions that, if not addressed, have the direct potential to result imminently in injuries or death. Property damage hazards involve road conditions or defects that may result in substantial damage to road system assets and public or private property. Some examples of prevention and response could include, but are not limited to, the following:

- Removing obstructions in the traveled roadway;
- Mowing hazardous vegetation that significantly diminishes visibility at intersections;
- Plowing or de-icing lifeline routes that serve hospitals and public safety facilities;
- Addressing demonstrated high-accident locations through traffic control or road design improvements;
- Repairing significant pavement defects in heavily traveled locations;
- Replacing a damaged stop sign or repairing a malfunctioning traffic signal;
- Cleaning a blocked stream culvert; or
- Inspecting infrastructure after an earthquake or flood.

Although the funding for roads is limited, immediate operational life safety and property damage hazard prevention/response is fundamental and we will address them first in all Road Services program areas and deliverables. When resources are insufficient for corrective action, response to hazards may include temporary or permanent closure of road/bridge facilities or other usage restrictions.

Q: How does Roads prioritize maintenance activities by the type of road?

A: The 2014 Strategic Plan for Road Services policy framework states that Road Services will prioritize the road hierarchy as follows in order to keep the most vital components of the road system operational for customers:

- 1) Lifeline routes
- 2) Arterial roads
- 3) Sole-access local roads
- 4) Other local access roads

Critical safety work and activities needed to meet clean water requirements are performed on all types of county roads, to the extent feasible at current funding levels, regardless of the road's function or other characteristics. The remainder of the division's work, including maintenance and preservation, is informed by this tier framework that categorizes roads based on functional and physical characteristics such as road classification, traffic volume, distance between similarly classified roads or alternative routes, whether the road provides sole access to properties, is a lifeline route, or is important for transit or freight.

All county roads are assigned to one of five tiers as shown in the table below. The tiered system focuses resources and guides decisions about where and in what order work will be provided. It also directs budget programming, workforce planning, and deployment decisions to protect roads that serve the most users. In order to keep the most vital components of the road system operational for customers as directed in the strategic plan, Tier 1 roads tend to receive the most maintenance and preservation services, while Tier 5 roads typically receive less.

	Type of Road	% of Daily Trips	Road Miles & Bridges
Tier 1	Heavily traveled roads connecting large communities, major services, and critical infrastructure.	50	105 mi. 35 bridges
Tier 2	Heavily traveled roads serving smaller geographic areas; provide alternate routes to tier 1 roads.	20	163 mi. 34 bridges
Tier 3	Highly used local roads that serve local communities and large residential areas.	15	189 mi. 33 bridges
Tier 4	Local residential dead-end roads with no other outlet.	5	500 mi.

			40 bridges
Tier 5	Local residential roads that have alternative routes available for travel in case of road closures.	10	573 mi. 35 bridges

Q: How does the percentage reduction of road miles from annexations relate to the reduction in Roads staffing levels?

A: Between 2006 and 2015, road miles were reduced by 19 percent due to annexations, while staff levels were reduced by over 40 percent. The urban roads lost to annexation tend to be newer and in better condition than the roads that remain in the system. The remaining roads are older and located in rural areas that have more challenging terrain, are more prone to flooding and snow/ice emergencies, have more environmental considerations and associated costs, and are more spread out geographically therefore requiring more travel time to serve.

Q: What is the utilization rate for county employees/how are hours distributed based on assumptions related to time off, administrative activities, and service hours?

A: Road Services budget assumes 80% of salaries paid is for time present at work and 20% is for various types of paid time off.

Q: What are the most significant activities performed by Roads staff and the associated costs?

A:

Activity	Average cost per unit	Notes
Pavement overlay	\$350k - \$563k / centerline mile	Depending on number of lanes and lane width.
Road reconstruction	\$7.7 Million /centerline mile	
Bridge replacement	Long span \$11 million Short span \$3 million	Long span > 20 ft. Short span < 20 ft. Bridges vary widely in size and cost. For example, the South Park Bridge cost \$170 million.
Guardrail (new installation)	\$234k/mile	Includes design, construction, and construction management.

Snow plowing	\$240/centerline mile	Assumes two lane road and two plow passes. More than one pass is often needed to clear road. There are additional costs to keeping roads clear during ice and snow, including application of salt, sand and anti-icer. These activities require equipment
		operators and utility workers to load materials as well as the truck and driver to apply them.
Shoulder mowing	\$212/pass mile	Multiple mowing passes per mile are often needed to control vegetation.
Gravel shoulder grading and restoration	\$9,150/mile	
Pothole patching	\$549/ 40 potholes	Assumes 1 foot pothole. Actual pothole size varies widely.
Square cut patching (i.e., patching larger areas)	\$311/ patch (6'x6')	Assumes 6 ft. x 6 ft. x 4 inch patch. Actual patch size varies widely.
Crack sealing	\$12,619/mile	Requires substantial crew including drivers, utility workers to apply sealant, traffic flaggers, and a chase vehicle.
Ditch cleaning (bucket ditching)	\$38,914/mile	\$7.37/foot

Notes: Centerline mile includes all lanes in both directions. Lane mile includes one lane only; so a four lane road would equal four lanes miles.

Q: What is the cost of crack sealing?

A: \$12,619 per mile. To see a YouTube video of what a crew performing this work looks like click here (forward to 1:06). Crack sealing operations requires a full crew to operate safely (traffic control, truck driver, laborers, and a foreman).

The purpose of crack sealing is to help prevent surface water from saturating the roadbed. Crack sealing is a maintenance tool that is useful when the roadway is still in relatively good condition and the cracks are just starting to form. It is a temporary repair that slows the crack from spreading out. This method of maintenance is not effective once the condition of the roadway worsens, as it cannot effectively seal wider cracks or address a failed surface.

King County prioritizes work in the following order: core safety, regulatory compliance, and maintenance. Roadway surface is one component of the roadway system. In order for the system to function, the roadway, roadside, and drainage must also be maintained.

- Pavement must be repaired to prevent water seepage into the sub-grade.
- Shoulders must be maintained in order for water to flow away from the pavement. Standing water on the roadway freezes in the winter, and ice expands causing pavement to deteriorate.
- The drainage system must be maintained to avoid standing water in the ditches, which softens the shoulders.
- Sediment must be removed from the drainage system before it enters into the streams.
- Pipes need to be repaired to reduce the risk of sinkhole formation.
- Vegetation needs to be cut back in order to provide adequate sight distances and to avoid blocking the view of traffic signs and signals.
- Debris and dead animals need to be removed from the roadway and roadside.

All of the above maintenance directly impacts the condition of the roadway.

Regulatory Issues

Q: What is the impact of the recent EPA final Clean Water Rule governing waters of the United States?

A: The Clean Water Rule: Definition of "Waters of the United States" was <u>published in</u> the <u>Federal Register (PDF)</u> on June 29, 2015. The rule became effective on August 28, 2015. The EPA provided the following summary:

The Clean Water Rule is fundamental to protecting and restoring the nation's water resources that are vital for our health, environment, and economy. EPA and the Department of the Army have been preparing to implement the rule on the effective date of August 28.

Since publication of the rule in the *Federal Register*, numerous lawsuits were filed challenging the regulation, and several parties sought preliminary injunctions to delay implementation of the rule. This week, United States District Courts in Georgia and West Virginia agreed with the Agencies that legal challenges to the Rule could only be brought in the United States Court of Appeals for the 6th Circuit and therefore denied the requests for preliminary injunction. On August 27, the District Court for North Dakota found that it had jurisdiction and granted the request of a number of States and issued a decision preliminarily enjoining the Clean Water Rule.

Under the order issued by the District Court of North Dakota, the parties that obtained the preliminary injunction are not subject to the new rule, and instead continue to be

subject to the prior regulation. In light of the order, EPA and the Army Corps of Engineers will continue to implement the prior regulation in the following States: Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming.

In all other respects, the rule is effective on August 28. The Agencies are evaluating these orders and considering next steps in the litigation.

As EPA and the Army Corps of Engineers implement the Clean Water Rule, the agencies are taking additional steps to increase transparency, respond to information requests, and streamline permitting. Read more:

https://blog.epa.gov/blog/2015/07/implementation-of-the-clean-water-rule/.

Protection for about 60 percent of the nation's streams and millions of acres of wetlands has been confusing and complex as the result of Supreme Court decisions in 2001 and 2006. The Clean Water Rule protects streams and wetlands that are scientifically shown to have the greatest impact on downstream water quality and form the foundation of our nation's water resources. EPA and the U.S. Army are ensuring that waters protected under the Clean Water Act are more precisely defined, more predictable, easier for businesses and industry to understand, and consistent with the law and the latest science.

Clean water is vital to our health, communities, and economy. We need clean water upstream to have healthy communities downstream. The health of rivers, lakes, bays, and coastal waters depend on the streams and wetlands where they begin. Streams and wetlands provide many benefits to communities by trapping floodwaters, recharging groundwater supplies, filtering pollution, and providing habitat for fish and wildlife. People depend on clean water for their health: About 117 million Americans -- one in three people – get drinking water from streams that were vulnerable to pollution before the Clean Water Rule. Our cherished way of life depends on clean water: healthy ecosystems provide wildlife habitat and places to fish, paddle, surf, and swim. Our economy depends on clean water: manufacturing, farming, tourism, recreation, energy production, and other economic sectors need clean water to function and flourish.

Additional information is at www.epa.gov/cleanwaterrule.

The new definition of what constitutes a water of the United States subject to federal regulation may have little, if any, impact on how Roads performs work. The changes would affect projects that require an Army Corp of Engineer (ACOE) permits. The changes in definitions are more specific. The definition of tributaries now specifically calls out ditches as potential waters of the U.S. However, it also gives exemptions to road side ditches that do not convey streams. The definition is now clearly defined and is similar to our definition of when a ditch is a stream.

The National Discharge Pollution Elimination System (NPDES) Municipal Permit requirements

for Roads concern management, maintenance, and repair of the storm water infrastructure within the right of way. The requirements for cleaning and repair of the drainage infrastructure are similar to, if not the same as, activities currently required by ACOE permits and Hydraulic Permit Applications (HPA). Therefore we should see little impact from the new rule.

The Water and Land Resources Division (WLRD) oversees management of the County's NPDES Municipal Permit. WLRD also administers the outfall monitoring program. An outfall is defined as a place where storm water outfalls to a water of the state. In some situations, the new definitions may define additional outfalls further upstream; it may or may not change the number of outfalls to be monitored.

With these new definitions, the impact to the Road Division will depend on the Interpretation and implementation by the regulatory agencies.

Q: How is Roads affected by a recent lawsuit over fish passages?

A: The recent lawsuit does not yet affect King County Roads. The State of Washington is under a federal court order to fix hundreds of barriers built under state roads and highways that block access for migrating salmon and thus interfere with Washington tribes' treaty-backed right to catch fish. The State has estimated that it will cost \$2.4 billion to correct more than 825 culverts — concrete pipes or steel structures that allow streams to flow under state roads and highways.

It is estimated that the state would need to fix an average of 30 to 40 culverts a year by 2030, spending \$310 million every biennium, to comply with the 2013 court injunction.

The state has appealed the judge's decision. But in the meantime, the Legislature has approved millions to correct fish barriers statewide. The transportation revenue bill includes \$300 million for fish passage, dramatically more than in the past, but far short of what the state estimates it needs. The House still needs to pass two Senate-approved bills to complete the transportation package.

The injunction issued by federal judge Ricardo Martinez stems from the landmark 1974 Boldt decision, which affirmed the treaty rights of Northwest tribes to catch fish. The judge said that fish-blocking culverts contribute to diminished fish runs.

Culverts can be a problem for fish in several ways. Stream flows running through a small pipe can be too fast, making it harder for fish to swim upstream to spawn or downstream to reach the ocean. Perched culverts also can be too elevated for fish to jump through. When culverts are removed or fixed, the benefits are immediate because it opens up critical habitat upstream to fish.

Roads has programs to replace damaged and failing culverts. For culverts which are located in a streams and/or wetlands, permits require that these culverts be replaced with fish passable structures. Replacing culverts improves road infrastructure, and reduces the potential for

catastrophic failure of undersized or failing culverts, which damage or close roads. Since the late 1990's, Roads estimates that more than 90 miles of fish habitat have been reopened, as culverts have been improved or replaced.

General Information

Q: Where is the PSRC chart on costs for maintaining, repairing, replacing with costs located?

A: Transportation 2040 Update, State of Good Repair, Appendix S can be found at: http://www.psrc.org/assets/10546/T2040Update2014AppendixS.pdf?processed=true

The information presented was for illustration purposes to show the increasing cost of repairs where maintenance and preservation efforts are delayed. Actual costs for maintenance, repair, rehabilitation and reconstruction will vary based on type and condition of infrastructure, and regional cost factors.

Q: Are there similar Bridges and Roads Task Forces around the country?

A: We identified several task forces around the country that address transportation funding issues. Most were launched by cities and states - not counties. The task forces also reside in states that have significantly different tax structures than Washington, which limits the applicability of the recommendations and findings. They did appear to have one common characteristic. Their membership includes panels of regional leaders and community members - similar to ours.

Below is a sample of task forces:

Road Funding Task Force in Douglas County, Nevada:

http://www.douglascountynv.gov/1007/Road-Funding-Task-Force (homepage)
http://www.douglascountynv.gov/DocumentCenter/View/2536 (presentation on revenue options)

A regional task force in Illinois focused on a specific roadway and bridge. The Longmeadow Parkway Task Force illustrates a regional effort to identify funding solutions. http://www.co.kane.il.us/dot/foxBridges/longmeadowPkwy.aspx

Transportation Funding Task Force (Michigan) http://www.michigan.gov/documents/mdot/08-16188 Sec 8 255511 7.pdf (funding alternatives)

http://www.michigan.gov/mdot/0,1607,7-151-9623 31969-202856--,00.html (homepage)

State Transportation Analysis Task Force (New Jersey)

http://www.nj.com/traffic/index.ssf/2015/03/why is road bridge and transit construction s o exp.html

Transportation Funding Task Force (Louisiana) http://theadvocate.com/news/11757429-123/task-force-offers-options-to

Governor's Working Group on Highway Funding (Arkansas)
http://governor.arkansas.gov/governors-working-group-on-highway-funding