Public Works Directors Association Meeting
9:00-11:00 a.m.
Wednesday, December 19, 2007
GPCOG Conference Room

Present: Erik Street, Chair, (Yarmouth); Shawn Bennett, Vice-chair, (Pownal); John Foster (Brunswick); Doug Fortier (Windham); Bob Malley (Cape Elizabeth); Roger Mosley (Standish); Adam Ogden (Cumberland); Peter Owen (Bath); Mike Shaw (Scarborough).

Staff and Guests: Neal Allen (GPCOG); Ted Corbett (Scarborough Public Works); Sue McIntyre (GPCOG); Steve Linnell (Coordinator Maine Clean Communities); Jay Nason (Scarborough Public Works).

1. **Welcome and Introductions** – Shawn Bennett, Vice-Chairman
   Shaw Bennett called the meeting to order at 9:01 a.m. and welcomed those present.

2. **Acceptance of Minutes from November 14th, 2007 Meeting**
   Mike Shaw made a motion for approval of the November 14th, 2007 minutes, seconded by Doug Fortier. All were in favor. Minutes were unanimously approved.

3. **Roundtable discussion**

   - ***Alternative Fuels***

   Steve Linnell, Coordinator of Maine Clean Communities
   As Steve Linnell distributed a handout summarizing the Maine Clean Communities program, he noted that he has been Coordinator for this program for almost ten years. He was designated "coordinator" by the Department of Energy. ***Key elements noted:***
   - The Clean Communities Program was started to decrease dependence on petroleum.
   - The program is "fuel neutral".
   - Propane is the number one alternative fuel in the U.S. but has not enjoyed the glamour of alternative fuels.
   - The program was pivotal in getting a fueling station situated at Suburban Propane.
   - The program has been around for almost fifteen years.
   - There are 80 active Clean Communities Coalitions around the country.
   - Funding for the program comes from the Department of Energy.
   - The program initially started as the Greater Portland Clean Cities and was later changed to become a statewide organization with the name Maine Clean Communities.

   Steve provided an update on what is happening with renewable fuels. In respect to ethanol, there was a press conference in Auburn last week with Safe Handling one of Maine Clean Communities' latest stakeholders. They now have the capabilities of transporting corn ethanol from out west to Maine, from rail to truck. Maine Clean Communities is not promoting ethanol in this region until it is made here in Maine. There is much promise though of making it in the future. Research is ongoing at USM with cellulosic ethanol. The idea is to "prime the pump" and get people to start using it. In 2003, there were about 125,000 vehicles in the State of Maine that could use ethanol. It is much higher now and could even be double that amount. Many manufacturers have made Flex Fuel vehicles as meeting a standard. Steve received a call from Gulf who had partnered with Cumberland Farms and were asking where the best place would be to put in a station in the Portland area. But, they must first get themselves established in Massachusetts. It was noted that there is a little of E10 now available in Saco.

   One of the projects that Maine Clean Communities has worked on thus far is the METRO Compressed Natural Gas (CNG) project which has been one of the biggest projects accomplished. (Steve encouraged the group to invite Dick Nye to come and talk to the group about natural gas).

   Biodiesel has also really taken off in this State. Standards have recently been put together in regards to the B20 blend. There is still the operable to worry about, in terms of cold weather. But there is strong evidence from places like Mt. Cranmore that B20 works just fine. They have been using it on the mountain without any problems. It was noted that Mt. Cranmore is going to have a biodiesel summit next month. Steve has more information, if anyone is interested in attending.

Mike Shaw provided an overview of the Town of Scarborough's use of alternative fuels. Scarborough has recently started using B20 in two of their plow trucks as well as a loader and two school buses. It is stored in an above ground tank. ***Jay Nason,*** also with Scarborough's Public Works Department noted that he ran a report with two similar plow runs. The one using B20 is getting a little over three miles per gallon more than the truck using regular diesel. They also have a brand new 2008 Wheller that has a particulate filter. That vehicle is also doing better on this fuel. The loader on biodiesel has been getting considerably better fuel. They haven't had any problems with the fuel filters, especially during cold days. They have also not seen any lack of horsepower in the vehicles. No additives are used. Mike noted that biodiesel is approximately $3.04 per gallon.

Ted Corbett from the Town of Scarborough noted that Bangor is using B20 in their fleet. They have been using biodiesel for the last two or three years and have had good success with it. Jay explained that biodiesel is cleaner and there is no exhaust. It actually cleans the engine. Jay added that he has not noticed any differences yet when it comes to changing the oil in the vehicles and he has not heard anything negative about its use. Steve pointed out that production for biodiesel is still being ramped up. It is a transition fuel. It has to be a first step in order to reduce dependence on petroleum. USM is looking at cellulosic for biofuels. If Maine used all their cellulosic for ethanol, it could make up about 40% of the petroleum we use in this State. We are the most densely forested State in the country. Many are saying that Maine could be the Saudi Arabia of cellulosic ethanol. Much of this will be dependent on what happens with diesel. The trend will continue to see price increases. At some time there will be a "tipping" point. As the demand for petroleum goes up there will be a demand for biodiesel.

Ted said that Scarborough had considered using biodiesel about three years ago. A pilot program had been discussed. What held them back was the cloud point and availability. The shelf life at that time was 60 days. In comparison, today the shelf life is six months and the cloud point is 18 degrees. Biodiesel is also delivered now. Steve added that we are starting to produce it here in the state. There is at least one such facility in Vassalboro. They are basically supplying that area. One local producer is using waste vegetable oil. They have had an issue with the cloud point but Steve felt that they will be able to work those details out. Both the producer and distributor will be BQ9000 certified. The National Biodiesel Board is promoting this because it guarantees the quality of the fuel although it may add to the cost. However, that is more palatable than a "failed engine". Another competing element in this region for biodiesel is its use for heating homes. Many people are starting to look into this. Tolerances are a lot lower for putting biodiesel into a boiler as compared to a diesel engine.

Jay was asked to clarify what is meant by the term "cloud point" with Jay explaining that it is a crystallization product that appears at minus 18 degrees with the B20 blend. The B100 blend would have a higher cloud point. Mike added that newer trucks are coming out with fuel heaters and that helps.

Steve pointed out that the natural gas and propane vehicles are more expensive. The incremental costs were around $4,000. Ford and GM both had bi-fuel natural gas vehicles and bi-fuel propane fueled vehicles but was not making the sales. The infrastructure was not there to support it. The infrastructure has since improved and the focus of this is really on fleets now. These were top-down management decisions to not supply these vehicles around this country. Meanwhile, these same companies are supplying natural gas and propane vehicles around the world. Steve provided information about Rousch. They are making propane-powered vehicles and have all the warranties. It is not your typical market conversion. It is a brand of product. There are others out there such as "Jasper" and "BAF" now who do after-market conversion both for propane and natural gas. When looking for smaller vehicles and fleet needs, Steve noted that the Honda GX is the only natural gas vehicle built on the assembly line and it is the cleanest vehicle in the world. It was noted that Honda may also be moving toward diesel technology. It is a more efficient use of it and many auto dealers are going to diesel and diesel hybrids. Discussion followed on the plug-in hybrid technology and the issues with battery replacement and battery disposal. "We are not there yet".

Steve said he felt that the ultimate in alternative fuels is hydrogen powered vehicles, but it is about 20 years down the road. There is a lot of interest in making that work but in the meantime there are many "gap" technologies. One of the many issues is how are we going to make the hydrogen. All the hydrogen now is being made from natural gas. There are other sources that we could be using. For instance, there is some work going on in Maine with biogas. We all have landfills, farms, sewage treatment plants that emit much methane. Methane is supposedly the worst greenhouse gas. It is an untapped resource. If we could "capture" that and use it, it would be great for energy, climate change and your balance sheet.

Other items of interest noted by Steve included an overview of incentives available to communities and non-profits. (For more details refer to Clean Communities handout.) Steve spoke of federal tax credits for certain vehicles, programs in respect to diesel and volume credits for alternative fuels. METRO is currently getting $.50 cents back from the federal government and are paying about $1.00 less per gallon than what they would be paying for fuel now. Steve felt that this should also apply to propane. Steve assisted METRO in the writing of grants in respect to fuel infrastructure and for the purchasing of buses. There is a bill currently in the Legislature that may provide as much as $13 million in funding this year. Steve will keep the group updated on any upcoming grants/funds.

- ***Alternative Fuels***

Jay Nason, Town of Scarborough Public Works
With the prospect of having to replace some of Scarborough's pick-up trucks last summer, Mike Shaw asked Jay Nason to take a look at what might be "out there" for vehicles with alternative fuels. After some research and discussions with Ron Owens, they found information on hybrid vehicles.

Jay and Ted Corbett then discussed propane powered vehicles with Mike Shaw. Research had been done on the internet and Jay found information on a product made available for sale by Jasper Engines, a huge rebuilder of commercial engines. A representative from Jasper Engines came to Maine and provided them with a presentation and samples of the conversion kits. Jasper Engines said they would be willing to teach them how to do the conversions themselves. Subsequently, Calvin, the representative from Jasper, taught the Scarborough staff how to install the kits, etc. Scarborough eventually converted a pick-up truck and a police cruiser (a Crown Victoria). The kits are working well. Contact was then made with Amerigas who then came to Scarborough and set them up with a fueling station and comprehensive training program. Jay added that it was his opinion that it should be the role of government to try and promote alternative fuels.

Ted Corbett, Town of Scarborough Public Works
Ted said he was thankful that Public Works had the blessings of both Mike Shaw and town manager, Ron Owens. When technicians are on board, everyone is on the same wave length. He noted that all police cruisers in the state of Florida run on propane. When you look at a propane-fueled vehicle with 100,000 miles the engine looks brand new. Ted spoke of how Jay Nason had spearheaded the entire project and had made sure that the propane system came on line. This was a hands-on project. When Amerigas came down from Lewiston they put in the entire infrastructure at no cost to the Town of Scarborough. Everything is computerized and Amerigas is available 24/7 Amerigas supplies everything except the fuel tanks. The town is now waiting for their certification from the State of Maine and then will apply for the $.50 cent per gallon federal rebate program. Steve noted that the rebate should be retroactive. The cost per vehicle was between $2,200 and $2,300.

Jay spoke of the propane system which is called PRINS. The vehicle actually thinks it is running on gasoline (done by a computer chip). It starts on gasoline and once it reaches 80 degrees it automatically switches to propane. Both vehicles seem to use the same amount of fuel as gasoline. There is no difference in performance. The biggest thing that you notice is that the engine is much quieter and the emissions are less. Mike added that they also liked the quality of the components used. In reference to safety, the threshold for ignition for propane is very small in comparison to gasoline. More discussions followed on the topics of biodiesel and warranties etc. Steve added that as far as he knew, no one had lost a warranty when using a B20 blend. Jay and Ted welcomed all to come by their building to check in on their new fueling station.

4. **Announcements:**
   - Winter Storm Surveys have started to come in. Please send yours in if you have not done so already.

5. **Other Business:**
   - A brief discussion took place on pre-wetting, calcium chloride, and truncated domes.
   - Erik provided an update on APWA. They are currently working on a new web page format. There will be a change of officers in January. They are also working on partnering up with town managers.

6. **Next Meeting – January 9, 2008**
   The next meeting is scheduled for January 9th, 2008. Featured speaker will be John Duncan from PACTS who will speak about the PACTS process. The featured topic for February's meeting will be "employee evaluations".

7. **Adjourn**
   The meeting adjourned at 10:45 a.m.