

**Plumbing and Gas Piping Program Proviso Response
P1 of the 2011 Budget Ordinance 16984, Section 93.**

INTRODUCTION

This Proviso Response is submitted in accordance with Section 93, Proviso P1 of the 2011 Adopted King County Budget, Ordinance 16984, and responds to the King County Council's direction to submit information regarding gas piping and plumbing inspection fees. The Proviso states:

"Of this appropriation, \$200,000 must not be expended or encumbered until the executive transmits and the council adopts a motion that references the proviso's ordinance, section and number and states that the executive has responded to the proviso.

This proviso requires the executive to transmit a report that:

- (1) identifies ways to reduce gas piping and plumbing inspection fees;*
- (2) discusses the feasibility of consolidating the gas piping and plumbing inspections function into the department of development and environmental services; and (3) discusses the feasibility of partnering with other jurisdictions to achieve efficiencies in conducting gas piping and plumbing inspections.*

The executive must transmit to the council the motion and report required by this proviso by April 30, 2011, in the form of a paper original and an electronic copy with the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers, the council chief of staff and the lead staff for the law, justice, health and human services committee or its successor."

BACKGROUND

Seattle-King County Department of Public Health (DPH) is committed to providing our customers with affordable plumbing and gas piping permits efficiently, while maintaining a high level of health protection for customers, the community, and the environment. In response to the proviso, Public Health undertook an analysis to see if there are more efficient and less costly ways to provide this service to the public. Specifically, we reviewed approaches to reduce costs by 1) achieving efficiencies within Public Health's plumbing and gas piping permit section; 2) consolidating our operations within King County's Department of Development and Environmental Services (DDES); and 3) partnering with other jurisdictions in the County and transferring responsibilities for some inspections to them.

We have concluded that the array of benefits and advantages, and efficiencies implemented to date, warrant maintaining operations within Public Health. This includes maintaining the new fee permit model that was just approved in the 2011 Adopted Budget, which incorporates cost-saving measures and enhanced alignment with the work being performed. We continue to strive for efficiencies; however, efficiencies gained by

moving this program outside of Public Health would be minimal, because 73% of this program's work is done in the City of Seattle which wishes Public Health to remain as its service provider. In addition, the DDES service model focuses on unincorporated areas with exceptions only for annexation transition and Comprehensive Planning. Since DDES does not already serve Seattle for other permitting needs, it would be difficult to find efficiencies in DDES serving Seattle for plumbing and gas piping inspection.

Finally, because of the complexity of many plumbing requirements, having less experienced staff conduct this work could pose significant health risks to the public. Faulty plumbing installation poses risks to the building occupants' health through unprotected connection of the drainage system, or non-potable water systems with the drinking water distribution system, and improper venting and combustion air for gas appliances, in addition to property damage as a result of leaks or blockages in sanitary drain lines.

The role of Public Health inspection in the plumbing and gas piping industry

The City of Seattle and King County have long recognized the importance of plumbing and gas piping in protecting the health and welfare of their residents. As early as 1920 the City of Seattle adopted an ordinance regulating plumbing installations (Ordinance No. 41079).

Seattle and King County present special plumbing challenges that requires a high level of expertise which Public Health staff are well positioned to provide given their skills and expertise:

- Complexity of high rise construction in Seattle;
- Hospitals, medical, dental, veterinary – medical gas systems for life support and surgical equipment;
- Compressed gas fueling systems – explosive gases at well over 3,000 pounds of pressure.

Further, plumbing and gas piping work is changing and becoming far more complex in general and particularly because of changes in demand due to Sustainable Development and Green Construction, including water reuse in major projects within Seattle.

The Seattle-King County Department of Public Health (DPH) maintains a very high level of plumbing technical competency to manage the complex and changing industry:

- Our Chief Plumbing Inspector is a key technical consultant for inspectors throughout King County and Washington. He is a nationally recognized expert on current and emerging plumbing systems, regularly serving on numerous committees nationally and at the state level for plumbing, mechanical and fuel gas code development and has served on Washington Department of Health boards and committees for drinking water and grey water rules. He serves as technical expert and instructor for the Washington Association of Building Officials and

provides training throughout the state to building departments, plumbers, engineers, architects, and sewer and utility districts.

- Public Health staff is regularly called on by other jurisdictions' building officials for high level technical advice on difficult plumbing problems. Our staff are both qualified and certified in the trade. All are Washington State certified journeyman plumbers, certified for both residential and commercial plumbing with extensive experience in the trade. The plumbing inspection staff average 30 years of plumbing trade experience in the State of Washington, 15 of those years in plumbing inspection. All receive yearly continuing education.

While building inspectors or others could potentially be trained to conduct basic plumbing and gas piping inspections, it would require significant investment to instill and sustain the level of technical competency necessary for the most complex inspections.

RESEARCH AND ANALYSIS OF PROPOSED METHODS

The following is the result of the research and analysis done by Public Health in response to this budget proviso.

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- (2) discusses the feasibility of consolidating the gas piping and plumbing inspections function into the Department of Development and Environmental Services; and
- (3) discusses the feasibility of partnering with other jurisdictions to achieve efficiencies in conducting gas piping and plumbing inspections.

(1) Identify ways to reduce gas piping and plumbing inspection fees.

Public Health's Plumbing and Gas Piping program maintains the highest level of efficiency in spite of the economic downturn. The program currently includes 11 staff, 10 inspectors and one supervisor, down from 20 staff during peak construction in 2006/2007. The program's entire inspection staff is based in Seattle, but permits can be obtained in Seattle and the Black River site in Renton, as well as online on the department's web site. Between 2005 and 2010 there were anywhere from 9,000 to 18,000 permits issued and 15,000 to 28,000 inspections performed annually. The jurisdictions covered under this program include the City of Seattle, unincorporated King County, and the cities of Medina, Clyde Hill, and Beaux Arts. 73% of our work is within the City of Seattle, 25% is in unincorporated King County, and 2% is in the contract cities.

Plumbing/Gas Piping Permits Issued				
by Year and by Jurisdiction				
Jurisdiction	2007	2008	2009	2010
Seattle	10,570	9,518	6,864	6,738
King County - unincorp	4,681	3,537	2,392	2,293
Incorporated Cities*	301	334	159	147
	15,552	13,389	9,415	9,178
Seattle	68%	71%	73%	73%
King County - unincorp	30%	26%	25%	25%
Incorporated Cities*	2%	2%	2%	2%
*Incorporated cities served are: Clyde Hill, Medina, and Beaux Arts.				

Recent and Current Efficiencies

Public Health has always recognized the need to provide a high level of quality customer service at affordable rates. We have enhanced efficiencies and continue to make improvements in efficiencies in the plumbing/gas piping program in efforts to contain costs and avoid unnecessary fee increases, including in the following ways:

- A single central filing system was instituted in 2004 to consolidate the permit files into one location rather than each inspector maintaining separate files according to assigned inspection areas.
- In 2005 we began using an automated phone line whereby customers can request inspections and verify the status of inspections. Administrative staff no longer needed to retrieve requests from voice mail and enter each inspection on a separate inspection report. The system also allows customers to check on the status of their inspection results.
- In conjunction with the automated inspection request system, the inspectors began using Blackberries in the field, thus reducing the amount of paperwork needed for the day's activity and improving communication among staff.
- Online permit application and purchasing went live in July 2010, significantly reducing the level of activity at the permit counters and the resulting paperwork. By March 2011, 46% of all plumbing and gas piping permits are being issued online, totaling more than 2,300 permits so far. One clerical position supporting the plumbing and gas piping program has been reduced as a result.
- All of the plumbing program staff were consolidated into one Seattle location in 2009, thus compressing the program's space utilization and gaining savings and

efficiencies. The centrally located office has also reduced travel time to areas outside of the City of Seattle.

- Inspectors are now beginning to use notebook computers in the field. Inspectors can complete more of their inspection data entry and reports in the fields. Continuing modifications are currently underway that will soon allow for wireless connectivity, thus allowing inspectors to spend more time in the field performing inspections and to allow access to the entire permit/inspection database while in the field. This will also improve communication and will enhance the retrieval of information with the ability to access information on the web, such as installation instructions or other product information needed during the inspection.

The efficiencies and cost-savings steps described above have been incorporated into the new fees that were included in the 2011 Adopted Budget.

Response to the proviso analysis of other potential efficiencies

In addition to the strategies identified above, Public Health also analyzed additional potential ways to reduce plumbing and gas piping fees. Reducing inspection time and travel time was evaluated, and service reductions were considered.

1. Inspection Time

The key factors in determining inspection time and cost are number of fixtures and distance from base. Inspection time has already been minimized to the extent possible and the only opportunity for savings is in travel time from base.

2. Travel Time

One possible way to reduce travel time costs is to hold (or “batch”) requests for inspections in more remote areas of King County until there are multiple jobs to inspect. This approach would be similar to what we currently do with Vashon Island, where inspections are conducted only on Wednesdays. As can be seen in the attached map, because only 25% of permits are issued in unincorporated King County and only a small portion of those are in outlying areas, the potential cost savings would not be significant. Currently 95% of inspection requests are handled within 24 hours of receipt of the request, irrespective of location. Customer service and satisfaction would be reduced if we follow the approach currently employed on Vashon Island.

3. Service Reductions

A third potential way of reducing costs is to reduce the number of inspections performed per permit, but this is not recommended. Currently every permit is subject to at least two and potentially three inspections:

- Ground work – Plumbing or gas piping that is installed below grade and must be inspected prior to cover of backfill material and construction.
- Rough in – Plumbing or gas piping that is installed within construction that must be inspected prior to finishing construction of walls, floors and ceilings, and;

- Final inspection – Installation of plumbing fixtures and plumbing or gas piping appliances and equipment.

The final inspection is the only inspection not specifically required by the plumbing code. While it could legally be eliminated in order to save costs, this approach is fraught with risk. Each of these inspections is conducted in order to assure correct plumbing installations and to protect the public's health. Review of our 2008 – 2010 data indicates that a significant percentage of final plumbing installations are deficient in some manner and require corrective action. Specifically, 25% of single family residential, 20% of multi-family residential and 18.5% of commercial installations require corrections at the final inspection. Forgoing these final inspections would pose significant health and monetary risk to occupants.

(2) Discuss the feasibility of consolidating the gas piping and plumbing inspections functions into the Department of Development and Environmental Services.

Seattle-King County Department of Public Health's (DPH) plumbing and gas piping permitting and inspection services cover Seattle, unincorporated King County and under agreement to the cities of Clyde Hill, Beaux Arts, and Medina. In 2010, 73% of permits were for the City of Seattle, and 25% were for unincorporated King County with the remaining 2% going to Clyde Hill, Medina, and Beaux Arts. The attached map shows plumbing and gas piping permits issued in 2010.

The Director of DDES has indicated that consolidation of plumbing and gas piping services into DDES, which currently does not provide this service, is feasible. DDES indicates this could potentially result in a single permit system for plumbing and building permits which may enhance customer experience and reduce administrative costs.

However, the effect of this consolidation may be minimal. DDES only serves unincorporated King County, which is just 25% of our business in Public Health. DDES does not provide permit and inspection services to any incorporated jurisdictions. While DDES's Director indicated a willingness to provide service to Clyde Hill, Beaux Arts, and Medina, service to Seattle which is 73% of plumbing and gas piping inspections in the current program, would be a poor fit with DDES' service model. Since DDES does not already serve Seattle for other permitting needs, it would be difficult to find efficiencies in DDES serving Seattle for plumbing and gas piping inspection.

Moving services DDES would involve significant staffing issues, including: 1) training building inspectors to conduct plumbing inspections, or 2) relocating Public Health plumbing inspectors to DDES.

1) Training building inspectors to conduct plumbing inspections: Although training a building inspector to conduct plumbing inspections could provide efficiencies, as indicated earlier, the complexity of current and future plumbing needs demands a high level of expertise that building inspectors at DDES do not currently possess. This

approach could be viable for the simpler categories of work, such as basic residential permits, for the jurisdiction served by DDES.

2) Relocating Public Health plumbing inspectors to the Department of Development and Environmental Services (DDES): Locating plumbing inspectors with DDES will not result in cost savings or improved customer service because the benefit of conducting combined inspections will not be realized. Public Health already provides high level of customer service in part due to our central location and the customer service and efficiency improvements as discussed above. This move would raise labor issues and may need to be processed through collective bargaining.

The challenges of these two options make them unlikely to produce significant savings for serving just the unincorporated area and contract cities (25% of total permits), if the function were split and Seattle plumbing and gas piping inspections were retained within Public Health.

Issues related to the City of Seattle

The Operations Manager for Seattle Department of Planning and Development (DPD) indicates that Seattle continues to be satisfied with the current service delivery model and would want to continue working with Public Health irrespective of who conducts the program in the balance of the County. He stated that Seattle DPD is satisfied with the quality, timeliness and cost of services to the public that Public Health provides to their customers. As stated above, providing the inspection program in Seattle would be a change of business for the DDES inconsistent with their business model and current service to unincorporated areas only.

Issues related to contracts with other cities to perform plumbing and gas piping inspections

Public Health currently has plumbing and gas piping permitting and inspection authority for the jurisdictions of Medina, Clyde Hill, and Beaux Arts. DDES has indicated that it would be willing to take over plumbing and gas piping inspection activities in these jurisdictions. However, that decision rests with the respective jurisdictions that contract with Public Health. They would continue to provide their own building permits, so a change from Public Health to DDES for plumbing and gas piping would not create efficiency in combining these two types of inspection visits.

Issues related to labor contracts

Public Health's plumbing and gas piping inspectors are represented by the United Association of Journeyman and Apprentices of the Plumbing and Pipefitting Industry (UA) Local 32. Breaking up the Public Health team by placing some inspectors under DDES with the remainder staying at Public Health to conduct Seattle inspections would require revisions to the collective bargaining agreements. Eliminating plumbing inspectors and training building inspectors to conduct plumbing inspections would present major labor challenges.

(3) Discuss feasibility of partnering with other jurisdictions to achieve efficiencies in conducting gas piping and plumbing inspections.

Incorporated cities in King County, except Medina, Beaux Arts, and Clyde Hill, currently have inspectors who conduct plumbing inspections within their jurisdictions, calling on Public Health staff frequently for technical assistance. Public Health investigated the possibility of partnering or contracting with other jurisdictions to perform plumbing and gas piping inspections but determined that this is not a feasible option for assuring coverage of the entire County.

Our investigation shows that those cities that might be inclined to contract to provide services would likely do so only in those unincorporated areas immediately adjacent to their cities. This would involve creating contracts or agreements with each of those jurisdictions. Even so, there would almost certainly be large areas of the County that could not be covered by adjacent cities and which would then have to be served by the County.

This partnering option would be potentially confusing for customers in unincorporated King County. Customers would have to go to the partner city for plumbing permits and to DDES for building permits.

Finally, this presents a problem because partner jurisdictions can only provide inspection services, but cannot enforce King County Code requirements. Enforcement of the plumbing and gas piping codes would still be subject to King County ordinances.

SUMMARY

The plumbing and gas piping permit fees adopted in the 2011 budget resulted in fee decreases in some categories and fee increases in other categories as a result of better linking of fees to the required work. Numerous efficiencies and cost-savings steps have and continue to be implemented to keep the fees as low as possible while maintaining our high level of customer service.

Public Health serves both the City of Seattle and unincorporated King County, making us the largest city or county plumbing/gas piping inspection jurisdiction in the State of Washington and in the Northwest. Seattle has the highest level of complex plumbing and

gas piping installations in the region. Appropriately, we also have the highest level of technical knowledge, skill, and expertise to meet the challenge of the ever increasing complexity and variety of these systems. We are a leader in Washington State and nationally. We believe that dismantling the Public Health Plumbing and Gas Piping Program at a time when the field is evolving and expertise is needed more than ever would send a message to those whom we serve and to those who look to us for guidance that plumbing and gas piping systems are not a public health concern.

In conclusion, we believe that it is essential that we continue to look for efficiencies but that our current program model and fee schedule is appropriate. We also believe it is important to maintain our current highly skilled workforce in the program. Public Health has evaluated the various options outlined in this proviso and has determined that the problematic issues and health risks outweigh the perceived benefits of using the options evaluated in this proviso research.

Plumbing and Gas Piping Permits Year 2010, King County WA

