
CITY OF PORTLAND
HEARING CONSERVATION PROJECT

BUSINESS CASE

Version Number: 1.0

Version Date: 01/01/12

• EXECUTIVE SUMMARY

The City of Portland has a known hazard related to workplace noise in a variety of operational areas. The proposed Hearing Conservation Program (HCP) will provide the city with a systemic approach to identifying, testing, protecting, and mitigating workplace noise. The reasons for the HCP include:

- Both federal regulation and state statute requires the city to comply with Occupational Safety and Health Administration (OSHA) standards related to occupational noise.
- The City of Portland is self-insured and administered for Workers' Compensation coverage. [Under City Code 3.15.020 F](#). Office of Management and Finance (OMF) Risk Management (City Risk) is responsible to administer this program on behalf of all city bureaus. Workers' Compensation claims resulting from workplace noise levels are a substantial financial exposure to the city.
- Oregon statute and administrative rule obligates the city, as the self-insured entity, to maintain loss prevention services for known hazards in the workplace, City Risk has the responsibility to:
 - Implement and monitor policies and procedures;
 - Provide loss prevention services; and,
 - Provide program framework to ensure adequate implementation, monitoring and compliance of bureau specific policies, procedures and loss prevention programs for these workplace hazards.
- The past fiscal year, the Hearing Conservation Services contract has ran approximately \$31,000 over budget. In researching the reasons for the budget overruns, it became apparent noise level testing had not been conducted in city bureaus to establish which employees are required to receive these services. Completion of the HCP will ensure only those Employees exposed to excessive noise receive services under this contract.
- The HCP is consistent with the mission, values and goals outlined in the Office of Management and Finance (OMF) Strategic Plan.

• **INTRODUCTION**

PURPOSE OF BUSINESS CASE

The Business Case for the HCP assists the city and its organizational stakeholders in making decisions regarding the various proposed HCP components and implementation plans.

The intended audience of the HCP Business Case is project stakeholders such as the Bureau Safety Managers and senior leadership.

• **GENERAL PROJECT INFORMATION**

Submission Date	January 1, 2012
Requested By	OMF City Risk
Business Owner	Ronda Hollis
Contact Info.	Phone: (502) 823-5387 e-mail: Ronda.hollis@portlandoregon.gov
Project Name	Hearing Conservation Program
Desired Start Date	As soon as possible

• **PROJECT DESCRIPTION**

Business Need

Currently, the city does not have a comprehensive HCP. While components of the program exist in various states of completion and implementation, these efforts do not accomplish city compliance with federal regulations, state statute and administrative rules. Portland Police Bureau was recently cited by OSHA for lack of a city-wide Hearing Conservation Program. Implementation of the HCP will:

- Accomplish compliance in the areas described;
- Provide organized city-wide framework, consulting and facilitation to assist bureaus in a consistent approach to managing workplace noise and avoid duplication of efforts;
- Drive appropriate use of related contracted resources; and
- Allow the city to better utilize and demonstrate the benefits from the investment of budgeted dollars.

Goals/Scope

The primary purpose of the proposed HCP is to deliver a city-wide framework for compliance with federal regulation; state statute and administrative rules. The scope of the proposed HCP includes:

- Convene a stakeholder workgroup to discuss options and make decisions around policy and guideline wording; approach for noise level and Dosimetry testing; OSHA compliance; and, ongoing HCP responsibilities and monitoring.
- Development and implementation of City-wide [HCP Policy](#) and [Procedures](#).

- Implementation plans for noise level, employee hearing testing and City-wide noise level mapping project; and,
- Toolkit of available contracts, technical resources, forms, and links to other hearing conservation programs.

The expected short term operational goals and objectives for the project are to:

- Collaboratively work with bureau stakeholders to ensure the HCP meets city-wide needs and OSHA requirements.
- Implement, complete and monitor the city-wide effort at identifying, measuring and documenting areas of suspected noise.
- Ensure the best use of financial resources related to the HCP by having bureaus review employees' currently receiving hearing testing services. Only those employees identified as being required to be part of the HCP will receive further testing under the HCP. All other employees wanting hearing testing will be directed by the bureau to employee wellness and/or private health care resources.
- Once suspected areas are identified as excessive; City Risk will provide leadership and consulting services to ensure bureaus success in implementing plans for employee hearing testing, hearing protection devices, employee training, engineering and administrative controls, and recordkeeping.
- Achieve city-wide compliance with federal regulations, state statute, and administrative rules by no later than December 31, 2012.
- Improved efficiency of contracted resources through better planning and scheduling of hearing testing.

Long-term goals and objectives for the HCP are to:

- Maintain the city-wide HCP in a manner that ensures appropriate program monitoring, modification and changes as needed to ensure ongoing compliance.
- Periodically perform research of new technical information, tools and resources to improve and keep the HCP up-to-date.

Risks/Issues

The basic business and technical risks/issues associated with implementing the HCP are:

- Availability of City Risk and bureau safety staff to perform noise level testing may cause delays in completing other work assignments and projects.
- Unbudgeted or excessive City Risk costs related to the noise level and Dosimetry testing may result in cost in excess of current budgeted amounts. Until we do this testing, there is no way to determine the actual number of employees required to receive services under the HCP.
- Use of budgeted contract dollars from the Hearing Conservation Services contract to complete the noise level portion of the HCP, could potentially cause future issues with

availability of contract funding for needed hearing testing in areas determined to have excessive noise levels.

- Unbudgeted bureau costs related to providing hearing protection devices, employee training and implementation of engineering and administrative controls.

The basic business and technical risks/issues associated with not implementing the HCP are:

- Continued lack of knowledge about excessively noisy areas in city bureau operations.
- Continued lack of compliance with federal regulation, state statute and administrative rules related to the city's self-insured status and OSHA compliance.
- Vulnerability to fines, sanctions, revocation of self-insured status, and unfavorable media attention for lack of compliance.
- Additional employee complaints and grievances about the city's lack of action regarding workplace noise.
- Continued inefficient use of hearing testing resources by employees without exposure to workplace noise, resulting in a lack of available resources for employees required to have hearing testing.
- Potential for adverse workers' compensation claims experience related to hearing loss from workplace noise.

• HIGH LEVEL BUSINESS IMPACT

The business functions impacted by the project to ensure successful implementation are:

- City Risk staff will need to dedicate resources to lead, facilitate and assist bureaus in implementing the HCP. During this time, ongoing operations will be prioritized according to life/safety, importance and/or applicability.
- Bureau safety staff will need to dedicate resources for meetings, planning, access to areas for testing, collaboration in matching noisy areas, tools and equipment to job classifications, and finalization of reports.
- Contracted vendors will be necessary to deliver noise level, hearing testing, preparing and completing reports.
- The City Risk budget will be impacted by equipment cost, maintenance and calibration for in-house dosimeter and noise level meters.
- Financial funding will come from the Workers' Compensation Self-Insurance Fund.

Performance indicators, investment outcomes and progress toward addressing the business need will be measured by:

- Reduction in noise related Workers' Compensation claims.
- Reduction or elimination of OSHA complaints and citations related to noise exposures.
- Reduction or elimination of grievances related to workplace noise levels.

- Favorable compliance reviews and audits of the Workers' Compensation Self-Insurance Fund.
- Successful completion of city-wide noise level mapping.
- Successful implementation and monitoring of bureau specific HCP.
- Efficient and appropriate use of contracted services related to hearing testing.
- The ability to make accurate projections for future contract costs related to HCP services.

- **ALTERNATIVES and ANALYSIS**

Alternatives related to the HCP are limited by potential regulatory ramifications of different business decisions. However, alternatives around how the HCP could be structured, but still implemented, are less restrictive. The recommendation favored by City Risk is Alternative "B." These alternatives include:

- A. Remain "as is" and not implement a city-wide HCP.
- B. Implement HCP as outlined in Program Guideline with City Risk leading, planning, facilitating and providing extensive consulting services and assistance to bureaus.
- C. Implement HCP as outlined in Program Guideline with City Risk only providing written instructions, resources and tools to assist bureaus.
- D. Hire a contractor to implement the HCP providing leadership, planning, facilitating and extensive consulting services and assistance to bureaus.

- **Alternative A**

Remain "as is" and not implement a city-wide HCP.

The potential positive impact of selecting this alternative may be:

- City Risk and bureau safety staff would not be needed to perform noise level testing. Therefore, the HCP would not potentially cause delays in completing other work assignments and projects.
- There would be no unbudgeted or excessive City Risk costs related to noise level testing.
- It would not be necessary to use budgeted contract dollars from the Hearing Conservation Services contract to complete the noise level portion of the HCP.
- Bureau costs related to providing hearing protection devices, employee training and implementation of engineering and administrative controls may be less because these areas would likely not be identified.

The potential negative impact of selecting this alternative may be:

- Continued lack of compliance with federal regulation, state statute and administrative rules related to the city's self-insured status and OSHA compliance.
- Vulnerability to fines, sanctions, revocation of self-insured status, and unfavorable media attention for lack of compliance.
- Additional employee complaints and grievances about the city's lack of action regarding workplace noise.

- Continued budget overruns and inefficient use of hearing testing resources by employees without exposure to excessive workplace noise. This may result in a lack of available resources for employees required to have hearing testing.
- Potential for adverse workers' compensation claims experience related to hearing loss from workplace noise.

Alternative B

Implement HCP as outlined in Program Guideline with City Risk leading, planning, facilitating, providing extensive consulting services, and assistance to bureaus.

The potential positive impact of selecting this alternative may be:

- Provide organized city-wide framework, consulting and facilitation to assist bureaus in a consistent approach to managing workplace noise and avoid duplication of efforts;
- Drive appropriate use of related contracted resources;
- Allow the city to better utilize and demonstrate the benefits from the investment of budgeted dollars;
- Accomplish compliance with federal regulation, state statute and administrative rules related to the city's self-insured status and OSHA compliance;
- Reduce vulnerability to the city for fines, sanctions, revocation of self-insured status, and unfavorable media attention for lack of compliance;
- A potential reduction in employee complaints and grievances about the city's lack of action regarding workplace noise;
- Efficient use of hearing testing resources only by employees with exposure to workplace noise, resulting in a lack of available resources for employees required to have hearing testing; and,
- Reduced exposure for adverse workers' compensation claims experience related to hearing loss from workplace noise.

The potential negative impact of selecting this alternative may be:

- Availability of City Risk and bureau safety staff to perform noise level testing may cause delays in completing other work assignments and projects.
- Unbudgeted or excessive City Risk costs related to the noise level testing.
- Use of budgeted contract dollars from the Hearing Conservation Services contract to complete the noise level portion of the HCP, could potentially cause future issues with availability of contract funding for needed hearing testing in areas determined to have excessive noise levels.
- Unbudgeted bureau costs related to providing hearing protection devices, employee training and implementation of engineering and administrative controls.

Alternative C

Implement HCP as outlined in Program Guideline with City Risk only providing written instructions, resources and tools to assist bureaus.

The potential positive impacts of selecting this alternative may be:

- Provide organized city-wide framework to assist bureaus in a consistent approach to managing workplace noise;
- Improvement to the appropriate use of related contracted resources;

- Accomplish compliance with federal regulation, state statute and administrative rules related to the city's self-insured status and OSHA compliance;
- If successful, there may be reduced vulnerability to the city for fines, sanctions, revocation of self-insured status, and unfavorable media attention for lack of compliance;
- There may be fewer employee complaints and grievances about the city's lack of action regarding workplace noise;
- If carried out in the methods outlined in Alternative A, efficient use of hearing testing resources only by employees with exposure to workplace noise, resulting in a lack of available resources for employees required to have hearing testing;
- Reduced exposure for adverse workers' compensation claims experience related to hearing loss from workplace noise.

The potential negative impact of selecting this alternative may be:

- A lack of availability, technical ability, time, and resources of bureau safety staff to perform noise level testing may cause:
 - Delays in completing other work assignments and projects;
 - Issues with the accuracy, reliability and consistency of noise level testing results;
 - The potential for bureau safety representatives not completing the project and/or not achieving the desired results;
 - Unbudgeted or excessive bureau costs related to the noise level testing costs e.g. consultants, tools, equipment, and reporting;
 - Smaller bureaus may not have safety staff with technical knowledge and skills to perform this work accurately, timely, or efficiently;
 - City Risk would not have the same amount of control over the positive outcome of the project e.g. results could be inaccurate, reports inconsistent, lack of or uneven completion of work between bureaus, and program may not be fully implemented;
 - If conducted by bureau safety staff, use of budgeted contract dollars from the Hearing Conservation Services contract to complete the noise level portion of the HCP, could potentially result in inefficient processes and cause future issues with availability of contract funding for needed hearing testing; and,
 - Unbudgeted bureau costs related to providing hearing protection devices, employee training and implementation of engineering and administrative controls.

Alternative D

Hire a contractor to implement the HCP which will provide leadership, planning, facilitation, extensive consulting services, and assistance to bureaus.

The potential positive impact of selecting this alternative may be:

- If a qualified contractor familiar with city operations was selected, the city may receive an objective and professionally organized city-wide framework, consulting and facilitation to assist bureaus in a consistent approach to managing workplace noise and avoid duplication of efforts;

- If appropriately selected, contractors may have more equipment, tools and current expertise to accurately complete testing and produce technical reports than City Risk or bureau safety representatives;
- Assist in driving appropriate use of related contracted resources;
- Allows the city to better utilize and demonstrate the benefits from the investment of budgeted dollars. Accomplish compliance with federal regulation, state statute and administrative rules related to the city's self-insured status and OSHA compliance;
- Reduced vulnerability to the city for fines, sanctions, revocation of self-insured status, and unfavorable media attention for lack of compliance;
- There may be fewer employee complaints and grievances about the city's lack of action regarding workplace noise;
- Efficient use of hearing testing resources only by employees with exposure to workplace noise, resulting in a lack of available resources for employees required to have hearing testing;
- Reduced exposure for adverse workers' compensation claims experience related to hearing loss from workplace noise.

The potential negative impact of selecting this alternative may be:

- Availability of contractors to perform noise level testing may result in delays;
- Use of contractors to complete this work will be substantially more expensive than use of City Risk or bureau safety representatives;
- If not appropriately selected, contractors may have less or no expertise to accurately complete testing and produce technical reports;
- Contractors may not have the same ability to fully and effectively implement the HCP within city bureaus;
- This method may result in unbudgeted or excessive City Risk costs related to the contracted noise level testing; and,
- Use of budgeted contract dollars from the Hearing Conservation Services contract to complete the noise level portion of the HCP, could potentially cause future issues with availability of contract funding for needed hearing testing in areas determined to have excessive noise levels.

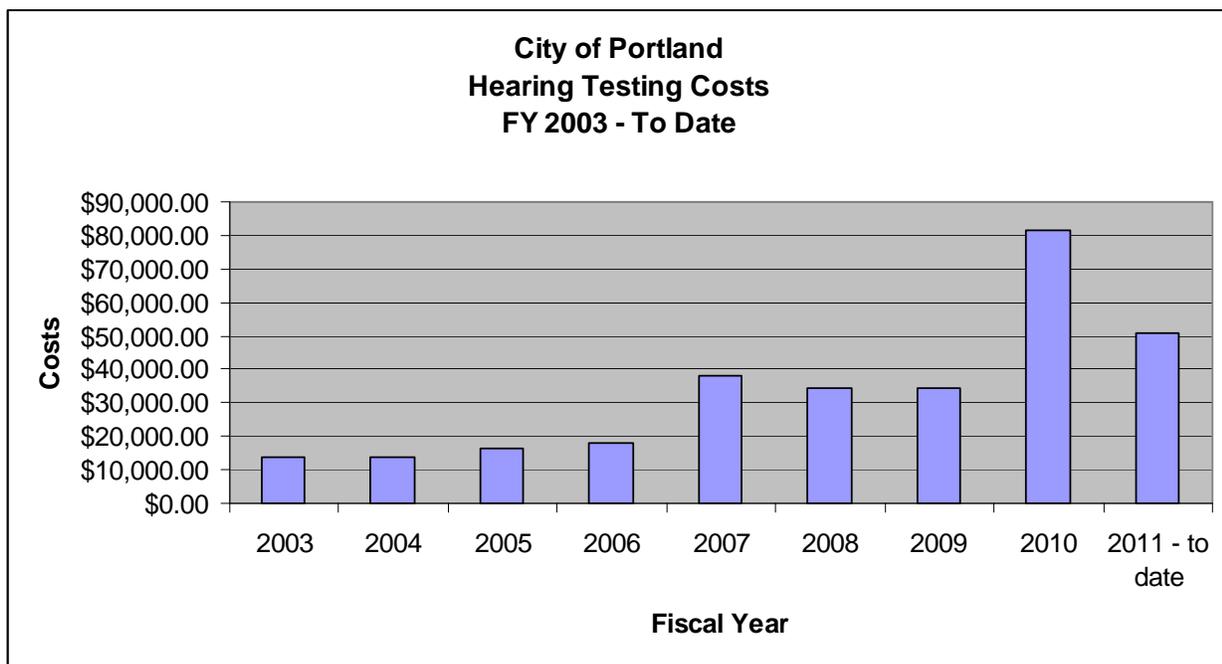
• **The Preferred solution is Alternative B.**

• **Financial Considerations**

- Exhibit 1 below demonstrates the rising costs of the HCP. The increased costs between FY 2006 and 2007 appear to be due to increased hearing testing as bureaus became more aware of OSHA requirements for an active HCP.
- [Attachment 3](#) contains spreadsheets from fiscal year 7/1/2010 – 7/1/2011 demonstrating the expenditures under the HCP services contract and an approximate \$31,000 cost overrun from the budgeted amount of \$50,000 per fiscal year.
- [Attachment 4](#) contains spreadsheets from fiscal year 7/1/2011 – present. Spring is the peak season for hearing testing, so we know additional costs for this year will be coming. At this time, we also know that the vendor is about 1 – 1 ½ months behind on billing. We estimate expenditures for this fiscal year will be close to last year.

- If Alternative B is selected, as noise level testing is completed, City Risk will be able to accurately determine each employee required to be part of the HCP. This information will assist us with the ability to accurately budget for ongoing costs and the resources needed from both City Risk Loss Prevention and bureaus to sustain the HCP going forward.
- City Risk is currently borrowing a noise level and Dosimetry meters from Bureau of Environmental Services. This equipment is due for yearly re-calibration at a cost of approximately \$500 annually. The equipment City Risk needs to adequately support the HCP is estimated at approximately \$6,500. As Loss Prevention planned this project, budget constraints and uncertainty around the amount of funding for adequate equipment and vendor costs to complete this project has caused delays and made progress difficult. As processes, equipment and tools are purchased or change, there will be a need for ongoing noise level and Dosimetry testing. Vendor charges for these services are prohibitive e.g. over \$1,000 each time a vendor provides noise level of Dosimetry testing. Bureaus have not budgeted for these internal resources, services, tools or equipment. City Risk will need to make internal business decisions and work with bureau stakeholders to determine the best method for maintaining this program going forward.

Exhibit 1 – Hearing Testing Costs:



- **Preliminary Work Breakdown Structure**
- See [HCP Action Plan](#) for a breakdown of the work to be completed on this project.
- **Assumptions and Constraints**

- Noise level testing of areas, equipment and tools using a noise level meter is the industry standard method to determine employees' exposure to excessive noise in the course and scope of their jobs. Where this data is inconclusive, a Dosimeter is attached to an employees' clothing for the work shift to record actual noise exposure levels. The city has not previously conducted noise level testing on city bureau operations, equipment and tools or Dosimeter testing on specific employees. Therefore, at this time, there is no accurate way to determine the exact number of city employees exposed to excessive noise in the course and scope of their jobs.
- Budget constraints, staff and affordable contractor availability have substantially limited the options available for completion of HCP work.
- It has been reported that employees working in office setting are currently receiving hearing testing services under the HCP contract. With a few exceptions of office workers near or seated in industrial settings, we are assuming employees working in office settings will not be required to be in the HCP.
- We are assuming that bureaus have previously been sending their employees clearly exposed to excessive noise for hearing testing. It is possible that noise level and Dosimetry testing will add a significant number of employees to the HCP. If this occurs, it will be necessary to discuss budget constraints around HCP costs.
- It was necessary we move forward before doing additional research to project total costs due to OSHA compliance issues and threat of additional citations. Because initial cost projections to have a contractor complete this work were prohibitive, it has been necessary to move forward using staff to complete the noise level and most of the Dosimetry work.
 - Assumptions of staff and resource costs were necessary. In order to establish project costs for the noise level and Dosimetry testing phase of this project, we had to gather data from the beginning phases.
 - Comprehensive noise level testing was not previously completed on city operations, tools and equipment. Therefore, there was no way to initially project the quantity needing tested.
 - We are using the data gathered on initial timeframes to project total staff and resource costs moving forward. Those projections will be completed by June 1, 2012.
 - We used methods, approach, goals, and lessons learned from peers in other public entities with similar HCP exposures and consulted with OR-OSHA. During the initial noise level testing, we surveyed bureaus to establish quantities. This information is reflected in the attached HCP Action Plan and we are continuing to document as the project progresses.
- We assume we will need to use some contracted services where conditions or results are inconclusive, difficult or technically advanced. We estimate the costs for these services to be less than \$7,500.
- A final project report will be issued when work on the HCP is completed per the Action Plan. We know ongoing work will be required. We will be taking data gathered during

the project to make assumptions for projections of future resources, tools and equipment needed to support the HCP. At project milestones, progress reports will be issued.