



LAKE COUNTY FOREST PRESERVES  
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Preservation, Restoration, Education and Recreation

**DATE:** June 29, 2017

**MEMO TO:** S. Michael Rummel, Chair  
Finance Committee

**FROM:** Mary E. Kann  
Director of Administration

**RECOMMENDATION:** Recommend approval of an Ordinance amending the Personnel Policies and Procedures by adding Policy 11.10 – Hearing Conservation Program.

**STRATEGIC DIRECTION SUPPORTED:** Organizational Sustainability.

**FINANCIAL DATA:** There is no financial impact.

**BACKGROUND:** During the most recent PDRMA Loss Control Review, it was recommended that the District consider developing a Hearing Conservation Policy and program. Using the Occupational Safety and Health Agency (OSHA) noise exposure standard, the District conducted sound level testing to determine if any employees are exposed to continuous noise levels in excess of 85 a-weighted decibels (dBA). Based on this testing, it is recommended that the District implement a Hearing Conservation Program that includes a formal Policy. Approval is requested for the addition of Personnel Policies and Procedures 11.10 – Hearing Conservation to the District Personnel Policies and Procedure Manual.

**REVIEW BY OTHERS:** Executive Director, Human Resources/Risk Manager, Corporate Counsel.

STATE OF ILLINOIS)  
  ) SS  
COUNTY OF LAKE )

**BOARD OF COMMISSIONERS  
LAKE COUNTY FOREST PRESERVE DISTRICT  
REGULAR JULY MEETING  
JULY 12, 2017**

**MADAM PRESIDENT AND MEMBERS OF THE BOARD OF COMMISSIONERS:**

Your **FINANCE COMMITTEE** presents herewith “An Ordinance Amending the Personnel Policies and Procedures by Adding Policy 11.10 – Hearing Conservation” and requests its adoption.

**FINANCE COMMITTEE:**

Date: \_\_\_\_\_  Roll Call Vote: Ayes: \_\_\_\_\_ Nays: \_\_\_\_\_

Voice Vote Majority Ayes: \_\_\_\_\_ Nays: \_\_\_\_\_

**LAKE COUNTY FOREST PRESERVE DISTRICT  
LAKE COUNTY, ILLINOIS**

**AN ORDINANCE AMENDING THE PERSONNEL POLICIES AND PROCEDURES BY  
ADDING POLICY 11.10 – HEARING CONSERVATION**

**WHEREAS**, on August 15, 1980 the Lake County Forest Preserve District (the “District”) passed and approved certain Personnel Policies and Procedures, which have been amended from time to time (the “Policies”); and

**WHEREAS**, it is in the best interests of the District to amend the Policies by adding a new Policy 11.10 titled “Hearing Conservation,” relating to compliance with the Occupational Safety and Health Agency (OSHA) noise exposure standard (the “New Policy”); and

**WHEREAS**, the New Policy shall be in the form of Exhibit A attached to this Ordinance and incorporated herein by this reference;

**NOW, THEREFORE, BE IT ORDAINED** by the Board of Commissioners of the Lake County Forest Preserve District, Lake County, Illinois, **THAT**:

**Section 1: Recitals.** The recitals set forth above are incorporated as a part of this Ordinance by this reference.

**Section 2: Approval of New Policy.** The New Policy is hereby approved. The Executive Director of the District is hereby authorized and directed to add the New Policy to the Policies.

**Section 3: Effective Date.** This Ordinance shall be in full force and effect from and after its passage and approval in the manner provided by law.

PASSED this \_\_\_\_ day of \_\_\_\_\_, 2017.

AYES:

NAYS:

APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2017.

\_\_\_\_\_  
Ann B. Maine, President  
Lake County Forest Preserve District

ATTEST:

\_\_\_\_\_  
Julie Gagnani, Secretary  
Lake County Forest Preserve District

Exhibit No. \_\_\_\_\_



## 11.10 Hearing Conservation Program

*Effective Date: July 12, 2017*

### **Policy**

It is the policy of the District to protect employees from uncontrolled exposure to hazardous noise by reducing employee exposure and providing appropriate hearing protection.

The District's hearing conservation program includes the identification and control of hazardous noise within work areas through the use of engineering and administrative controls combined with the selection and use of proper hearing protection.

### **Procedure**

#### **Responsibilities of the Department Director**

Directors support the efforts of Risk Management by providing leadership support for the identification and mitigation of noise hazards.

#### **Responsibilities of Risk Management**

Risk Management is responsible for the implementation, training and administration of the hearing conservation program, including:

- Coordinate and supervise any noise exposure monitoring.
- Identify employees to be included in the program.
- Designate equipment and areas where hearing protection must be worn.
- Coordinate and supervise audiometric testing and recordkeeping.
- Assist with hearing protection selection.
- Coordinate initial and annual employee training.
- Update the program upon notification by District Departments that new equipment has been introduced.

#### **Responsibilities of the Superintendent/Division Manager**

Superintendent's responsibilities include:

- Notifying Risk Management if a change in the workplace results in higher noise exposure levels.
- Ensuring that employees properly use and maintain their hearing protection.
- Ensuring employees comply with the requirements of this policy.
- Ensuring proper hearing protection is available.



**Responsibilities of the Employees**

Employee responsibilities include:

- Notifying their supervisor if a change in the workplace results in exposure to higher noise levels.
- Using noise control measures as required.
- Using hearing protection as required.
- Attending all training and audiometric testing.
- Notifying their supervisor of any complicating medical problems as soon as possible.

**Noise Monitoring**

Noise exposure monitoring will be conducted to:

- Determine whether hearing hazards exist.
- Determine whether noise presents a safety hazard by interfering with speech communication or recognition of audible warning signals.
- Identify employees for noise control efforts and establish hearing protection practices.
- Identify specific noise sources that require engineering and administrative controls.
- Evaluate the success of noise control efforts.

Risk Management will determine which areas need monitoring. Monitoring will be performed using a Sound Meter. All monitoring for noise exposure levels will be conducted by Risk Management or an outside consultant.

Monitoring will be conducted whenever there is a change in equipment, process or controls that may affect the sound levels. This includes the addition, removal or replacement of machinery, or change to the building structure. Superintendents/Division Managers are responsible for informing Risk Management when these types of changes are implemented.

If the results of any monitoring equals or exceeds the action level (85 dBA Time Weighted Average) Risk Management will:

- Provide appropriate hearing protection for exposed employees.
- Work with supervisors to ensure hearing protection is worn by employees at all times while in the noise area.
- Investigate and implement feasible engineering and administrative controls to reduce the noise levels.

**Noise Control**

**Engineering and Administrative Controls**

The District will first attempt to control existing noise hazards by implementing as many engineering controls as possible. These controls involve modifying or replacing equipment, or making related



physical changes at the noise source or along the transmission path to reduce the noise level at the employee’s ear.

If engineering controls are not feasible, then administrative controls will be examined. Administrative controls are changes in the workplace or schedule that reduce or eliminate the employee exposure to noise such as modification of work schedule and personal distance from equipment.

**Hearing Protection**

When engineering and administrative controls are not feasible or do not eliminate the hazardous noise, hearing protection will be required. Additionally, all employees shall properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area.

Employees will be provided with an appropriate selection of hearing protection. The selection will include three distinct types; molded earplugs, foam earplugs and earmuffs. The hearing protection selection must:

- Reduce all employee exposures to a level below 85 dBA TWA<sub>8</sub>.
- Include various sizes and shapes to fit ear canals.
- Hearing protection should be appropriate for different types of working conditions.

To determine specific hearing protection effectiveness, the following formulas will be used:

Type of Hearing Protection	Effective Protection
Single hearing protection	Estimated Exposure (dBA) = TWA (dBA) – [(NRR – 7) x 50%]
Dual hearing protection	Estimated Exposure (dBA) = TWA (dBA) – {[(NRR – 7) x 50%]+5}

**An Example of Reducing the NRR**

8-hour TWA noise exposure: 93 dBA  
 NRR of hearing protectors: 29 dB  
 Subtract 7 dB from the NRR: 29 dB - 7 dB = 22 dB  
 Divide by 2: 22 ÷ 2 = 11 dB  
 Subtract 11 dB from the  
 8-hour TWA noise exposure: 93 dBA - 11 dB = 82 dB  
 Decide if 82 dB (known as the “Protected Exposure”) is below the PEL for noise



### **Non-Required Hearing Protection**

Employees who work in areas or perform tasks that produce noise levels below the action level may still wear hearing protection for comfort reasons as long as it does not impact work communication or emergency announcements. The employee's supervisor will determine whether an employee can wear his personal hearing protection.

### **Audiometric Testing Program**

All employees required to wear hearing protection must have a baseline audiogram and a follow-up audiogram every year thereafter. The annual audiogram will be compared to the baseline to determine if any hearing shift is occurring. The District will utilize an occupational medical center to perform the audiograms and results will be documented in the employee's medical file.

Prior to the baseline audiogram, the employees should be notified that they should not be exposed to any high noise levels (greater than or equal to 85 dBA) during the 14-hour period before the test. This also applies to the annual audiogram, but the employee may use the hearing protection as a means for maintaining the level required.

If a shift in the audiogram has occurred, the employee should be notified in writing within 21 (twenty-one) days. A new audiogram can be obtained after 30 (thirty) days and the results can be made the new baseline. If a shift from the baseline has occurred, the root cause will be investigated to determine the cause of the shift.

### **Employee Training**

Employees included in the program will be required to attend initial and annual training on noise exposure and the Hearing Conservation Program. Topics will include:

- Effects of hazardous noise on hearing.
- Purpose of hearing protection.
- Advantages, disadvantages and attenuation of various types of hearing protection.
- Instructions on selection, fit, use and care of hearing protection.
- The locations and equipment where hearing protection is required.
- Explanation of audiometric testing.
- Rules and procedures concerning hearing protection and requirements for hazardous noise areas.