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Environmental Report

National League of Cities

October 27, 1980

Cities Cut Noise Levels With 'Buy Quiet' Programs

The National "Buy Quiet" Program, established last year under the president's 1979 Urban Noise Initiatives Program and sponsored by the National Institute of Governmental Purchasing and NLC, is aimed at using city purchasing power to encourage widespread marketing of products that make less noise.

The following article, which introduces local officials to the basics of "buying quiet" for their communities, was adapted from an NIGP guidebook.

—Lloyd Chaisson

City operations and services can become quieter if officials take the important step of buying equipment that makes less noise and of requiring contractors to use quieter products. In this way, cities set a good example for community residents as they purchase lawnmowers, trucks, motorcycles and other noise-producing items.

A "Buy Quiet" program established in your community by your city purchasing agent will be very noticeable to constituents and local leaders. All of a sudden the once noisy city garbage trucks will be quiet; the lawnmower that shattered eardrums will be almost noiseless; and the incessant clanging of a pile driver will become a muffled tap.

A data bank for local officials seeking information on "buying quiet" has been set up at the National Institute of Governmental Purchasing, an organization of city purchasing agents drawn from the ranks of almost every NLC member city.

Every day of the week purchasing officers routinely prepare purchase descriptions for products and services. They are generally concerned with identifying the best product at the least cost, but they can extend local buying power beyond price and into areas that match local goals such as making the city a quieter place to live.

Agents in all cities can consult with NIGP to design purchase descriptions for quieter products and services. The data bank provides information on quieter models of commonly used products, as well as case histories of cities that have instituted "Buy Quiet" programs. Design, performance and noise level information on various products, specific product models and sample purchase descriptions and tabula-

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Sketch from National Institute of Governmental Purchasing handbook

Cooperative Buying Makes Cities Quieter

Cities all across the country are beginning "Buy Quiet" programs. In fact the program's success in some areas has hastened the development of local government purchasing cooperatives that pool purchasing power and save time and money. This article points out how cities are leveraging their purchasing power beyond cost saving and into environmental noise control. Every day of the week cities purchase goods and services to meet some collective local need, and this financial might is often used as a means to achieve a quieter environment.

—Lloyd Chaisson

by Steve Gordon

Communities asking for quieter models of noisy products are getting them, and at competitive prices.

More than a dozen individual cities and counties have established local "Buy Quiet" Programs, and various governmental groups have followed suit. Others are in the process of considering this promising, and different, approach to community noise control.

In New Orleans, for example, the purchasing bureau uses the data bank at the National Institute of Governmental Purchasing to prepare product specifications that will eliminate noisier models from consideration in future procurements. Products to be purchased with noise level specifications were selected by Mayor Ernest N. Morial, based on recommendations by the city's Office of Environmental Affairs.

Steve Gordon is director of the "Buy Quiet" Program and coordinator of education and professional development for the National Institute of Governmental Purchasing.

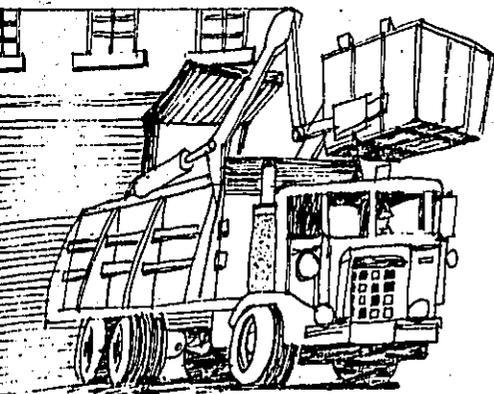
The cities of Chicago, Milwaukee, New York, Pittsburgh, and Austin, Tex., which also have "Buy Quiet" programs, are purchasing quieter models of lawn equipment, air compressors, pavement breakers and trash compactors, hoping that private firms and citizens using many of the same noisy items will follow the example. Shelby County, Tenn., and Pinellas County, Fla., are also committed to purchasing quieter products and services whenever practical and feasible.

Other local governments are cooperating with neighboring units in establishing and operating multi-government "Buy Quiet" programs. Sometimes the cooperation occurs through existing intergovernmental cooperative purchasing programs. In other areas the process is reversed: intergovernmental cooperative purchasing programs are built around the "Buy Quiet" concept.

Under the "Buy Quiet" project of a major intergovernmental purchasing program in Iowa, the Scott County Purchasing Association, the city of Davenport is joining hands with nine other units (including the county and area school districts) in buying quieter models of several noisy products. In addition to heavy equipment, the group will be focusing on indoor items such as vacuum cleaners and typewriters.

In the Southwest, an immense intergovernmental purchasing cooperative has been established as a direct result of a "Buy Quiet" Program spearheaded and coordinated by the North Central Texas Council of Governments. Approximately 40 government units will purchase quieter products and services

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Sketch by Bob Orban

Determining The Evaluated Bid Price

The formula for determining the evaluated bid price is:

$$EBP = P - [(x \text{ percentage}) (P_{AV}) (N - N)]$$

Where:

EBP = Evaluated Bid Price

P = Actual Bid Price

x Percentage = The percentage weight designated by the city to "reward" bidders for each decibel by which their model is quieter than the noisiest bid model

P_{AV} = Average bid price of all proposals

N_N = The noise level of the noisiest model bid

N = the noise level of the model on which the evaluated bid price is being determined

Sample Bid Tabulation

The bid tabulations for a purchase of quieter lawn mowers might look like this:

Bidder	Actual Bid Price	Noise Level (dBA)	Evaluated Bid Price (EBP)
(A) Smith Co.	\$145.00	86	\$145.00
(B) Robert Co.	\$154.00	85	\$151.02
(C) Jones Co.	\$147.00	82	\$135.08
(D) Watkins Co.	\$150.00	81	\$135.10

Calculation of Evaluated Bid Price

Assuming that the purchaser used a 2 percent "reward" factor for each decibel of in-

creased quietness, the Evaluated Bid Price for each bidder would be determined as follows:

(A) Smith Co.

$$\begin{aligned} EBP &= \$145 - .02 (\$149) (86-86) \\ &= \$145 - \$2.98(1) \\ &= \$145 \end{aligned}$$

(B) Roberts Co.

$$\begin{aligned} EBP &= \$154 - .02 (\$149) (86-85) \\ &= \$154 - \$2.98(1) \\ &= \$151.02 \end{aligned}$$

(C) Jones Co.

$$\begin{aligned} EBP &= \$147 - .02 (\$149) (86-82) \\ &= \$147 - \$2.98(4) \\ &= \$147 - \$11.92 \\ &= \$135.08 \end{aligned}$$

(D) Watkins Co.

$$\begin{aligned} EBP &= \$150 - .02 (\$149) (86-81) \\ &= \$150 - \$2.98(5) \\ &= \$150 - \$14.90 \\ &= \$135.10 \end{aligned}$$

Contract Award

Based on an evaluated bid price of \$135.08, the contract should be awarded to Jones Co. (bidder C) at the actual bid price of \$147 per unit for furnishing mowers with a (maximum) noise level of 82 decibels.

ways to purchase quiet products. Through the project, clear, open and accurate purchase descriptions that allow competitive bidding on these products were developed with industry help and endorsement.

Through a "Buy Quiet" program, local officials can control urban noise at virtually no cost. Using NIGP purchasing descriptions, cities can begin a program tomorrow. Because vendors compete fiercely for major city purchases, cities can be assured that a quiet product will be competitively priced. Also, the quietest models may be the most energy efficient because noise is wasted energy.

Noise Level Requirements

A specification for any product or service should:

- Identify minimum performance and design requirements,
- List test methods that may be used to determine compliance with these requirements,
- Allow and encourage competitive bidding, and
- Permit an equitable contract award.

A city interested in purchasing a quieter product or service must be sure that specifications describe

items that can be offered at a reasonable price by at least two, and preferably three or more suppliers. Cities should be familiar with commercially available products before embarking on a "buy quiet" purchase.

Vendor Compliance

There are at least two ways cities can be assured that they have been offered or have bought products that conform to specified requirements—laboratory and field testing by the city and "certified" test data from vendors.

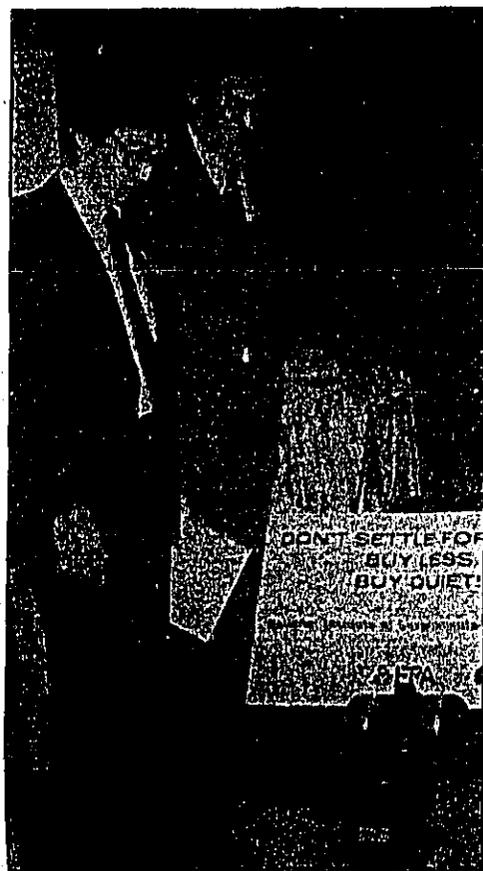
Cities may need to test items when they are submitted for evaluation to insure that they comply with bid specifications. In most instances, however, it is more practical to ask vendors to submit with their bids a third party's written certification that the product conforms with the city's noise specification. Remember, however, that the compliance testing procedure used must be known to vendors so that they can perform the same test before submitting their proposals.

The Evaluated Bid Price

The National Institute of Governmental Purchasing has developed an optional method of bid evaluation that allows cities to reward a bidder for offering a product that is even quieter than what is required by the purchasing specifications. For each decibel that a product is quieter than the loudest product bid (in conformance with the specification), a fixed percentage of the average actual bid price is subtracted from actual bid price. The difference is the evaluated bid price. (See box)

Evaluated bid prices, rather than actual bid prices, are compared in selecting the contract recipient. Since less product noise is a criteria in addition to cost, the bidder with the lowest price may not necessarily be the bidder with the lowest evaluated bid price.

To avoid paying an excessive premium for quieter products, cities using this contract award method should specify that the amount the city is willing to pay will not exceed the average of the actual bid prices by more than a certain dollar. □



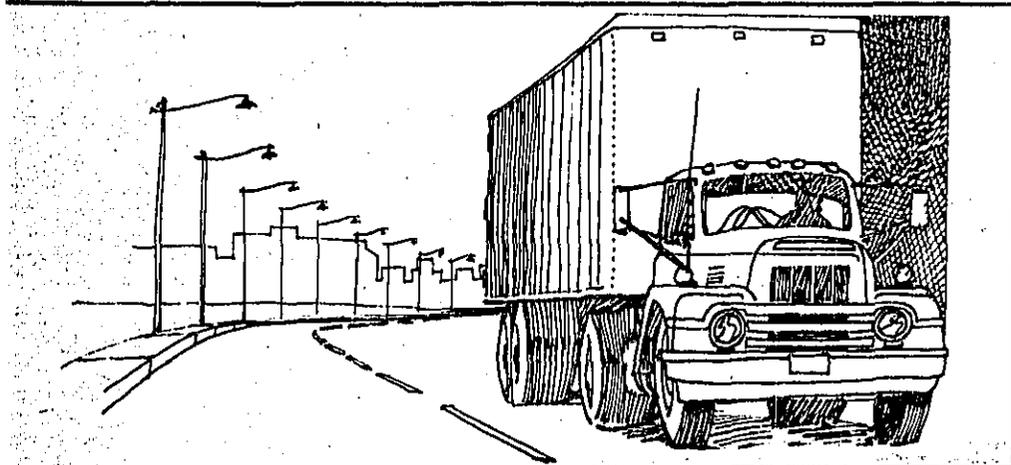
Steve Gordon, director of NIGP's "Buy Quiet" program, and Stan Durkee of EPA examine quiet lawn mowers on display at Dallas conference.

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tion sheets are also available, along with vendor recommendations from communities that encourage companies to offer the quietest products possible.

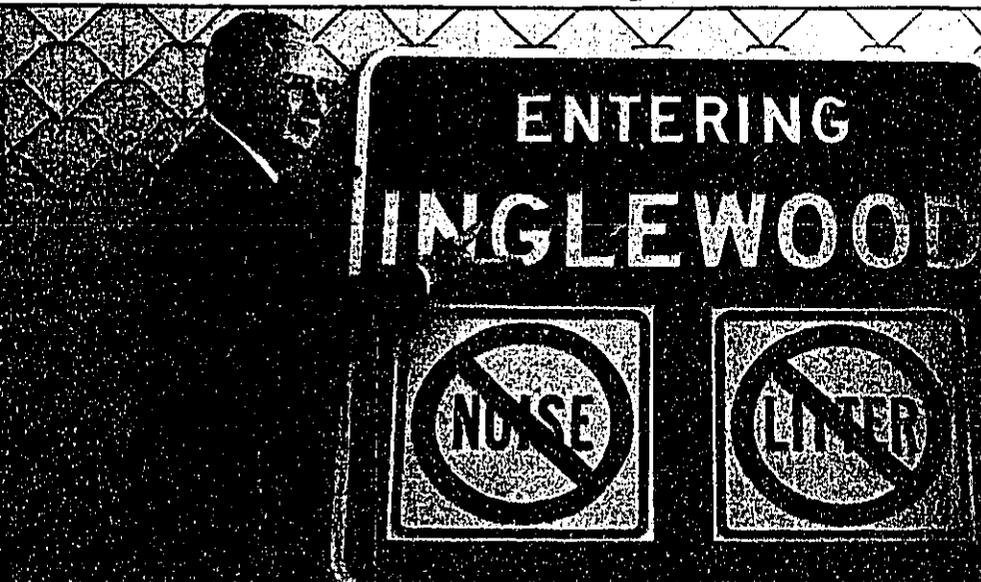
Some cities have agreed to obtain products with contracts that require quieter products or from companies that offer them. New York City, Chicago, Philadelphia, Washington, D.C., Dallas and Des Moines, as well as purchasing cooperatives in the Las Vegas and Saint Paul areas, have made such commitments.

The institute is also speeding up the marketing of less noisy products through a quieter products project. Model purchase descriptions for lawnmowers, chain saws, garbage trucks, pavement breakers, motorcycles and vacuum cleaners were prepared in city-industry conferences where city purchasing officials met face-to-face to discuss fair and economical



Motor Vehicle noise enforcement is a top priority in many communities. Sketch by Bob Orban.

Urban Noise Control Is Important Issue For Many Residents



Mayor Lee Weinstein of Inglewood, Calif., displays noise and litter control sign at NLC noise consultation meeting in January.

by Lloyd Chaisson

Noise is a real problem. Many people complain about it, but even more are annoyed by it and hurt by physically as well as psychologically.

City dwellers are especially affected by noise and are surprisingly aware that it is a real problem. In a recent survey of urban residents' attitudes toward their cities, the Gallup organization found that "quiet" was the third most sought after urban amenity (after friendly people and good housing) for those who live in cities with more than 50,000 people. Forty percent of the respondents thought noise was a fairly serious problem in their city and almost 50 percent thought that the problem was not being dealt with properly.

In his message to Congress on the environment, President Carter called attention to the ever growing problem of urban noise. One of the priorities of the 96th Congress is to control noise; not to diminish vibrant urban lifestyles, but to help cities reduce or eliminate noises that threaten citizens' well-being in the next decade and beyond.

Because noise is intrinsically an urban problem, much of the federal effort to control noise focuses on local solutions. The U. S. Environmental Protection Agency's Office of Noise Abatement and Control is working with NLC to develop programs that show local officials how to deal with community noise problems, that introduce them to the latest technological

developments and that solve specific problems in specific communities.

NLC's Urban Noise Program

NLC is confronting the problem of urban noise in three principle ways:

- Each Community Helps Others—The ECHO program matches volunteer noise control experts with communities needing help in solving particular noise control problems. Federal presence is minimal and the program is designed to share local knowledge, not federal mandates. Aid can range from one-shot technical assistance to long-term programs. Community noise advisors from cities that have established noise control programs donate time to ECHO, receiving funds to cover out-of-pocket expenses.

- Noise Information Updates—Frequent articles in "Nation's Cities Weekly" and other publications keep

city officials informed on new and alternative technologies for noise control. Features cover health aspects of noise control, ways that local officials can control noise and in-depth looks at particular noise programs. Legislative and regulatory updates and the latest information on state and local developments are also included.

- Urban Noise Task Force—Through NLC, a local official consultation committee advises EPA's noise office on development of overall program strategy, with an emphasis on local assistance. This group advises the agency on the relationships between noise and city revitalization, urban growth, economic development, transportation, and other issues and assists in developing practical federal goals to combat noise.

Noise is a nuisance, but non-technical solutions to the problems it presents do exist. Many of the problems can be corrected through public education—if city officials know how to go about it.

The problem is growing, however, and by next year the solutions may not be so simple. Numbers of motor vehicles are increasing two-and-a-half times as fast as numbers of people, and by the 21st century, urban noise levels will double unless something is done now.

Not only is the problem going to get worse in the near future, but solving it is going to become much more expensive. Airport use and road traffic, for example, will continue to grow, while energy shortages will probably bring more people to the city.

These developments could create more noise problems. But they can be avoided if intelligent land-use planning is used today. The best—and least expensive—time to solve an environmental problem is before it occurs.

That's also the best time to solve a political problem, and urban noise complaints are one of the crucial problems faced by local officials. Attention today could mean a quieter city—and a quieter telephone at city hall—tomorrow.

For more information on controlling noise, contact Director, Urban Noise Program National League of Cities, 1620 Eye St., NW, Washington, D.C. 20006 (202) 293-7174. □

Motor Vehicle Noise Handbook

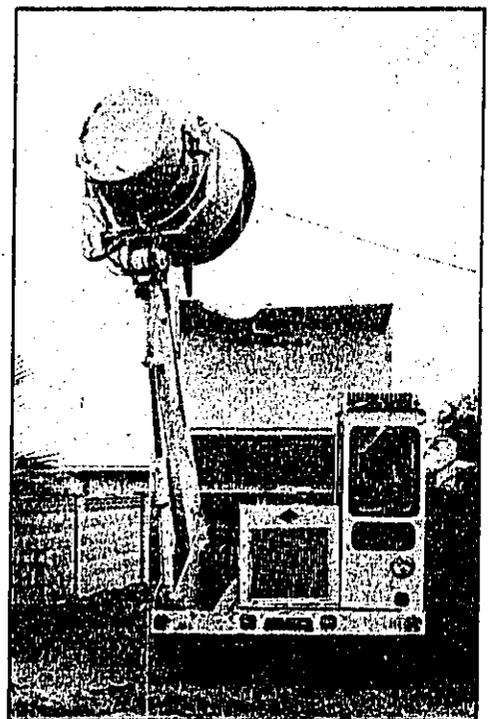
A handbook aimed at helping city officials to understand how motor vehicle noise enforcement works is available from the U.S. Environmental Protection Agency.

Based on the premise that mounting motor vehicle noise problems call for simple, workable noise enforcement procedures, the book strives to help mayors, council members, police chiefs, judges and other officials to become familiar with vehicle noise control basics. Topics range from enforcement procedures to how a sound level meter works—an important fact to know to winning local support of a noise control ordinance.

Single copies of the 44-page guide are available from U.S. Environmental Protection Agency, Region V Noise Program, Chicago, Ill. 60604. (Please mention NLC in your request.)



Noisy equipment near homes is especially annoying to many community residents.



Selecting Vendors For Quiet Products

All major methods of competitive product and service procurement recognized by the National Institute of Governmental Purchasing—competitive sealed bidding, multi-step competitive sealed bidding and requests for competitive sealed proposals—can be used to purchase quiet products and services for communities.

Competitive sealed bidding is the preferred and most common method and should be used when clear and adequate specifications are available or can be developed and when adequate competition is available. It involves simply choosing the best offer in open one-shot competition. Cities use this method when the type of product they want, as well as the price they are willing to pay, is clear.

Multi-step competitive sealed bidding can be used when time is not a critical factor and when available specifications are inadequate or too general to permit full and free competition without technical evaluation or discussion. The first step is a request for information to which potential suppliers respond with unpriced technical offers. The next step is very similar to regular competitive sealed bidding; vendors who submitted acceptable offers submit competitive sealed bids based on those offers.

Cities may also consider government-industry conferences involving purchasing officials, city officials and manufacturer representatives as an alternative to the multi-step method. Such meetings involve line-by-line discussions of proposed purchase descriptions.

Competitive sealed proposals are requested when a city must purchase non-standard items (such as those involving relatively new technology) and when competitive sealed bidding is not advantageous. Requests for proposals include a description of the product or service to be purchased and criteria that will be used to compare proposals. Price may not be the major or even the determining criterion for contract award. Unlike the competitive sealed bidding process, which compares the evaluated bid prices of responsive bidders, the competitive sealed proposal method objectively evaluates proposals against each other to determine contract award.

NIGP "buy quiet" methods can be applied to each of the three purchasing methods.

Noise Information Helps City Officials Buy Quiet Products

The National Institute of Governmental Purchasing has prepared product information supplements to help city purchasing agents select noise levels for various products. The supplements describe the product and give the noise level range and the average noise level for all known models.

Wording for "noise level" requirements of purchase descriptions is suggested, as well as the best method of encouraging bidders to offer models with noise levels below those of the specification requirements.

A list of product manufacturers is included, together with a list of cities that have already purchased products with "noise limiting" specifications.

Current "Buy Quiet" supplements cover:

- Rotary Power Lawnmowers
- Trash Compactors (Garbage Trucks)
- Pavement Breakers and Rock Drills
- Motorcycles
- Vacuum Cleaners

For copies and further information write to Steve Gordon, "Buy Quiet" Program Director, National Institute of Governmental Purchasing, Inc., 1001 Connecticut Ave. NW, Washington, D.C. 20036.

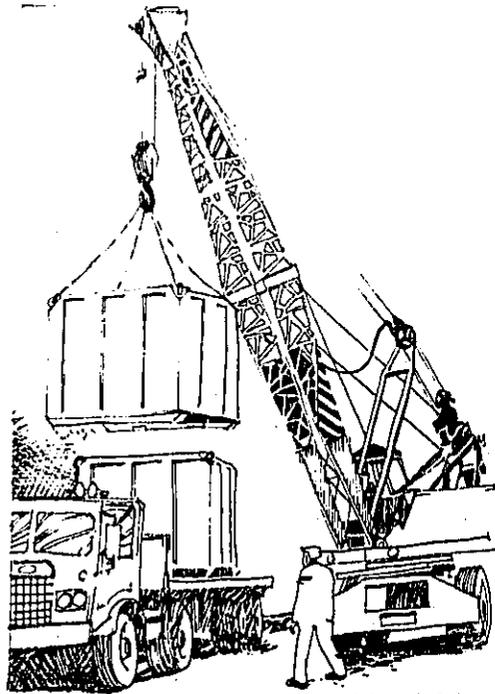
Correspondence Course On Noise Fundamentals

A correspondence course in community noise fundamentals for city officials who will be involved in designing and supervising a local noise control program is offered by Pennsylvania State University.

The course presents the basics of sound, including its measurement, health effects and control. Also covered are methods for designing local regulatory and enforcement procedures and guidelines for noise compatible land use planning.

The training offers local officials all the necessary information required to begin an effective community noise control program, university officials say.

Information about the Community Noise Fundamentals course is available from Pennsylvania State University, Continuing Education Department, Three Shields Building, University Park, Pa. 16802.



Sketch by Bob Orban

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under joint purchasing agreements coordinated through the council's newly-established Regional Public Purchasing Officials Committee.

Another intergovernmental purchasing program in the Twin Cities area of Minnesota, involves a cooperative effort directed toward both noise control and increased productivity. Seven governmental units, including the state, three counties the cities of Bloomington, Minneapolis and St. Paul and the University of Minnesota are involved. □

Municipal Leagues Will Help Communities To Start Noise Programs

The Indiana Association of Cities and Towns, the League of Iowa Municipalities and the League of Minnesota Cities, which have received Quiet Communities Grants from EPA's Office of Noise Abatement and Control, will be helping member cities to develop effective noise control programs.

Iowa, Indiana, and Minnesota cities that already have local programs will be assisting other communities under a statewide ECHO (Each Community Helps Others) program that matches these cities with other communities that want to establish local noise programs. Statewide workshops and training sessions aimed at helping local elected officials to find ways to assist their communities to cut down on excessive noise will also be included. Motor vehicle noise enforcement will be emphasized most by the state leagues during the program's first three years, with training aimed at planners, city attorneys and police chiefs.

Quiet communities grants, which come under Section 14 of the Noise Control Act of 1972, provide financial help to state and local governments to combat urban noise. □

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