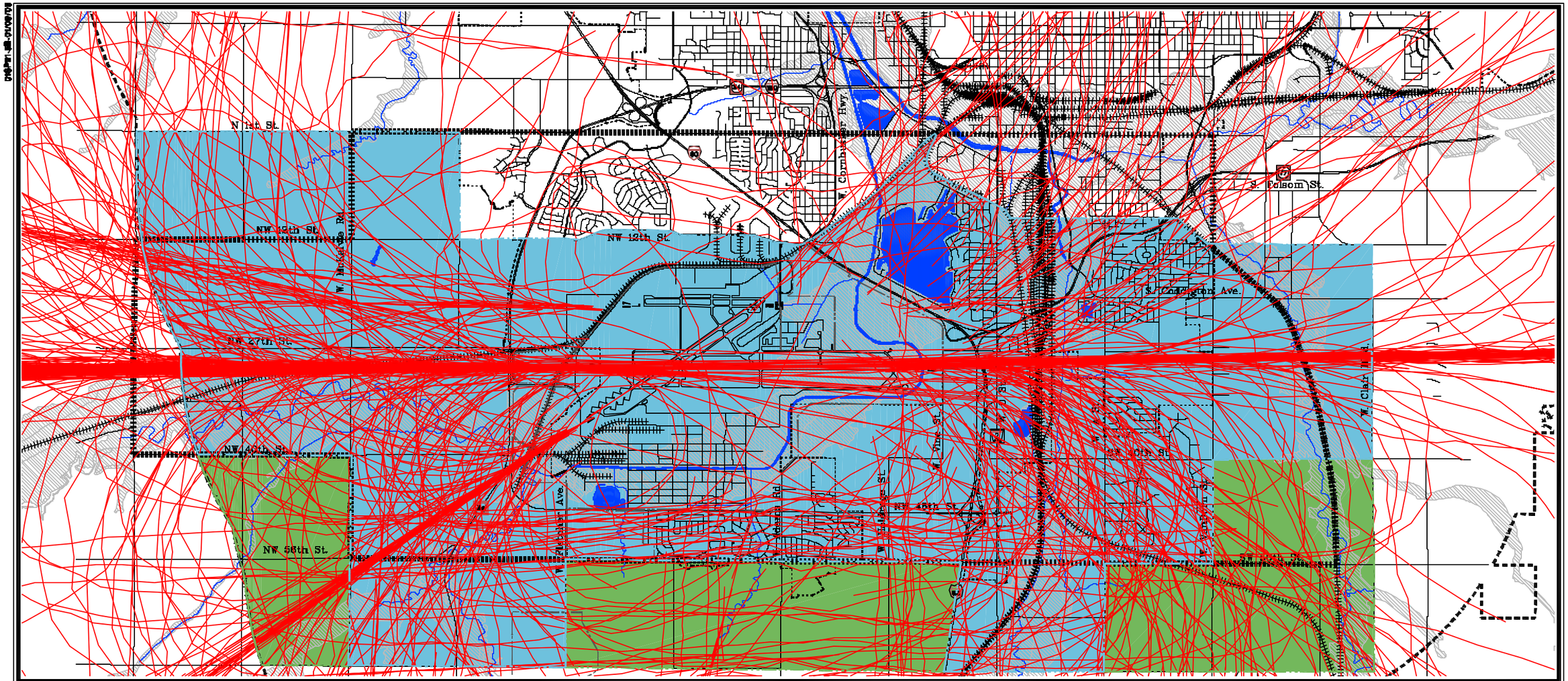

LEGEND

- Airport Property
- Municipal Boundaries
- Extra-territorial Jurisdiction
- Railroad Tracks
- Study Area
- Floodplains
- Airport Environs Noise District
- Alternative Airport Environs Noise District Boundary Adjustments
- Radar Flight Track Data (Does not include General Aviation or Overflights)

Source: Base Information and Map:
City of Lincoln Geographic
Information System, May 2002.
Coffman Associates Analysis.

NORTH

0 6000
SCALE IN FEET

Lincoln Airport

Exhibit 5B
ALTERNATIVE AIRPORT ENVIRONS NOISE DISTRICT BOUNDARIES

practical." (The Ldn descriptor is now required by FAA to be referred to as DNL.) Unfortunately, due to the size of the contours prepared for the 1980 ANCLUC study, it was not practical to limit noise-sensitive development beyond the 65 DNL noise contour as recommended in the study.

Consideration should be given to incorporating the 60 DNL as the contour of significance. The intent of the 1980 ANCLUC study; the growing trend of communities using the lower contour levels for restricting noise-sensitive development; research that demonstrates the contour of significance should be based on the ambient noise levels of the area; and the fact that aircraft noise complaints registered at the airport are all outside the 65 DNL noise contours are all valid reasons for considering the adoption of the 60 DNL noise contour as the contour of significance for land use planning purposes.

Implementation of Suggested Changes to Existing Land Use Planning Boundaries

The implementation of the land use planning boundaries discussed in this section would most appropriately be contained within the City of Lincoln's Airport Environs Noise District regulations. Modifications to these existing regulations will be presented within the Regulatory Techniques section of this chapter beginning on page 5-8.

LAND USE MANAGEMENT TECHNIQUES

This section outlines the land use management techniques that are used to promote noise compatibility. These techniques are grouped under three headings: **policy** and **regulatory** techniques which guide future development, and **expenditure** techniques which involve potential payments for mitigation assistance. Examples of each of these techniques are illustrated in **Exhibit 5C**.

The potential suitability of each technique is discussed in this chapter and evaluated by two factors: effectiveness and feasibility. The criteria used for judging effectiveness include near and long term suitability to address the land use issues discussed at the beginning of this chapter. If a technique appears to be effective, and does not create undesirable side affects, the feasibility of implementing it is evaluated. Feasibility criteria include cost to local governments and citizens, eligibility for FAA financial aid, political acceptability, state statutory authorization, and administrative ease or complexity.

The 2002 noise contours will be used during evaluation of the various techniques. This contour was the largest of the three evaluated in Chapter Three and allows for the evaluation of a "worst case" scenario.

POLICY TECHNIQUES

Policy techniques which can be used to guide future development include:

- The community's comprehensive plan; and
- Project review guidelines

Comprehensive Plan

A community's comprehensive plan establishes policies for the development and improvement of the community. It provides the basis for the local zoning ordinance, which contains the regulations that govern the use and development of land.

- EVALUATION

The *2025 Lincoln and Lancaster County Comprehensive Plan* is the only comprehensive plan applicable within the study area. The various components of this plan were discussed in detail in Chapter One.

Within the comprehensive plan, reference is made to the City's Airport Environs Noise District and Airport Zoning Regulations. Consideration could be given to incorporating an exhibit depicting the boundaries of the various districts into the plan. Many individuals utilize comprehensive or general plans when considering the purchase of property. Incorporating an exhibit depicting the areas impacted by airport operations into the general plan would allow for further fair disclosure of the impact of the airport on its environs.

- CONCLUSION

Consideration could be given to incorporating the 2002 noise contours and Airport Environs Noise District into the existing comprehensive plan.

Project Review Guidelines

Planning commissions and local governing bodies are often required to use their own discretion and judgement in making recommendations and decisions on community development issues such as general plan amendments, rezonings, variances, conditional use applications, subdivision applications, and proposed public improvement projects. The exercise of this discretion is constrained by the legal requirements of the applicable ordinances. Where opportunities remain for planning commissions and governing bodies to use their own discretion in the review of development proposals, it may be appropriate to adopt procedures ensuring the consideration of noise compatibility issues in their deliberations.

- EVALUATION

The City of Lincoln could consider adopting airport land use compatibility guidelines that would allow for discretionary review of development

POLICIES

- Comprehensive / General Plan
- Project Review Guidelines

CHECKLIST FOR REVIEW OF NOISE-SENSITIVE DEVELOPMENT PROJECTS

✓ 1. Is proposed land use "noise-sensitive"?

✓ 2. If yes, is proposed land use in 60 DNL contour? (If so, route application to Airport Manager.)

_ 3. Is sound insulation proposed?

_ 4. Can site be arranged to reduce noise exposure?

REGULATIONS

- Compatible Use Zoning
- Zoning Changes - Residential Density
  - Large Lots, Planned Unit Development
- Airport Noise Overlay Zoning
- Subdivision Regulations
- Building Codes
- Transfer of Development Rights
- Environmental Zoning
- Fair Disclosure By Sellers

EXPENDITURES

- Property Acquisition
- Noise and Avigation Easement Purchase
- Development Rights Purchase
- Purchase Assurance
- Sales Assistance
- Sound Insulation

Lincoln Airport

Exhibit 5C
LAND USE TECHNIQUES TO PROMOTE
NOISE COMPATIBILITY

TECHNIQUES FOR GUIDING NEW DEVELOPMENT TO PREVENT FUTURE NOISE IMPACTS

POLICY TECHNIQUES - Non-regulatory governmental actions to encourage noise-compatible development near airport.

Comprehensive Planning: Policies supporting land use compatibility near airport. Involves land use plans and policies to guide consideration of rezonings, variances, conditional uses, public projects.

Project Review Guidelines: Adoption of guidelines which ensure that noise compatibility issues are considered during reviews of development proposals.

REGULATORY TECHNIQUES - Local land use regulations requiring compatible development in airport area.

Compatible Use Zoning: Commercial, industrial, agriculture, or open space zoning.

Zoning Changes, Residential Density: Large-lot zoning or planned unit development.

Noise Overlay Zoning: Special regulations within high-noise areas.

Subdivision Regulations: Require dedication of noise and avigation easements, plat notes.

Building Codes: Require sound insulation in new construction.

Transfer of Development Rights: Zoning framework to authorize private sale of development rights to encourage sparse development in high-noise areas.

Environmental Zoning: Environmental protection zoning to support airport land use compatibility.

Fair Disclosure Regulations: Require seller to notify buyer of aircraft noise.

TECHNIQUES FOR MITIGATING EXISTING NOISE IMPACTS

EXPENDITURE TECHNIQUES - Because of high costs, these techniques are usually applied only within 65 DNL contour where Federal funding assistance may be available.

Property Acquisition: Outright purchase of property.

Noise and Avigation Easement Purchase: Purchase of easement only.

Development Rights Purchase: Purchase of rights to develop property.

Purchase Assurance: Airport acts as buyer of last resort, then resells property and retains easements.

Sales Assistance: Provide assistance to property owners in selling homes. Airport retains noise easements.

Sound Insulation: Installation of sound insulation in existing homes and noise-sensitive institutions.

Lincoln Airport

Exhibit 5C (Continued)
LAND USE TECHNIQUES TO PROMOTE
NOISE COMPATIBILITY

projects within the Airport Environs Noise District. These guidelines would most appropriately be contained in the general plan. The process would add little cost or administrative burden to the review process. A simple checklist could be prepared listing the important factors to consider in reviewing development proposals within the Airport Environs Noise District. The following criteria are suggested.

- Determine the sensitivity of the subject land use to aircraft noise levels based on the 2002 noise contours.

- Advise the airport management of development proposals involving noise-sensitive land uses within the airport influence area.

- Locate noise-sensitive public facilities outside the 60 DNL contour, whenever possible.

- Discourage the approval of rezonings, exceptions, variances, and conditional uses which introduce noise-sensitive development into areas exposed to noise exceeding 60 DNL.

- Where noise-sensitive development within the 60 DNL contour must be permitted, encourage developers to incorporate the following measures into their site designs.

  (1) Where noise-sensitive uses will be inside a larger, mixed-use building, locate noise-sensitive activities on the side of the building opposite the prevailing direction of aircraft flight.

  (2) Where noise-sensitive uses are part of a larger, mixed-use development, use the height and orientation of compatible uses, and the height and orientation of landscape features such as natural hills, ravines, and man-made berms, to shield noise-sensitive uses from ground noise generated at the airport.

- CONCLUSION

The City of Lincoln could consider adopting airport land use compatibility guidelines for review of development projects within the Airport Environs Noise District. These would be appropriately included in the general plan.

REGULATORY TECHNIQUES

Regulatory techniques are land use and development controls established through local legislation. These techniques include:

- Compatible Use Zoning
- Zoning Changes/Residential Density
- Airport Compatibility Overlay Zoning

- Subdivision Regulations
- Building Codes
- Transfer of Development Rights
- Environmental Zoning
- Fair Disclosure Regulations

Compatible Use Zoning

The most common zoning technique in noise compatibility planning is to eliminate residential zoning from the noise-impacted area and replace it with commercial, industrial, open space, or other compatible zoning designation.

A potential limitation of compatible use zoning is the need to balance the supply of industrial and commercial-zoned land with demand. If the market for commercial or industrial land is weak, and if the property owners perceive that they are unable to develop or use their land, they can exert political pressure or, in extreme cases, sue in court to force rezoning of their land. This could occur if the total supply of commercial and industrial land vastly exceeds demand, or if the land which has been zoned for commercial and industrial use is not suited for that use because of site problems, such as poor access or inadequate water and sewer service.

In making rezoning decisions, the impact of the proposed zoning on the neighboring area must also be recognized. Problems can occur where the vacant land being considered for commercial or industrial zoning is near an established residential area. The residents may strongly object to the intrusion of non-residential uses into their neighborhood.

- EVALUATION

The majority of the area contained within the 2002 65 DNL noise contour is currently zoned for compatible land uses. The areas zoned for compatible land uses are depicted on **Exhibit 5D.** When possible, the areas that are zoned for compatible uses should be maintained.

Much of the area within the 60 DNL noise contour is also zoned for compatible uses. Recognizing the need to balance industrial and commercially zoned land with residential development, consideration could be given to maintaining the current compatible land use zoning within the 60 DNL noise contour.

- CONCLUSION

Whenever possible, areas within the 2002 60 DNL noise contour that are zoned for compatible land uses should be maintained.

Change in Residential Density

Another way of using conventional zoning to promote noise compatibility is to reduce the potential number of future residents in the high noise area, rather than preventing residential development altogether. This can be done by reducing the permitted housing densities in the noise-impacted areas.