

PSRC Airport Compatible Land Use Program

Scope of Services and Project Schedule

BACKGROUND

Airport compatible land use (related to FAR Part 77 height hazards and airport noise) is a critical issue in planning for airport systems, as well as planning for the growing communities they serve. The region's healthy economy has resulted in growing airport activity and increased urban development at those airports' borders. Adopted comprehensive plans in the Central Puget Sound Region show there is the potential for development of new incompatible land uses adjoining the region's airports. In 1996, in response to the growing issue of land use encroachment around the state's airports, the State legislature amended the Growth Management Act (GMA). The law now requires cities and counties to use their comprehensive plans and development regulations to discourage the siting of incompatible uses adjacent to general aviation airports (RCW 36.70.547).

Implementing the new law involves partnerships between local planning agencies, airport sponsors, the Washington State Department of Transportation (WSDOT) and State Department of Community Trade and Economic Development (DCTED), and the Regional Council, and each has a unique role. Local agencies develop plans and regulations in consultation with airport sponsors and the state. The WSDOT Aviation Division provides information and technical assistance to local agencies to help them develop effective policies and plans. The Regional Council incorporates airport compatible land use into its process for reviewing and certifying the transportation elements of local agency comprehensive plans under GMA. The goals of the process are to provide information exchange, facilitate discussions between the Regional Council and local agencies, improve local land use planning decisions, and protect the region's airports from further land use encroachment. This work program is intended to advance the region's existing planning process related to airport compatible land use.

In addition to these state regulations, Federal Aviation Administration grant assurances require airport sponsors to work with local land use agencies to address land use issues related to their airports. FAA Grant Assurance 21 (Compatible Land Use) states: *It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which federal funds have been expended.*

WORK TASKS

Task 1: Establish airport compatible land use working group / refine scope of services

- Create a regional airport compatible land-use working group to provide technical guidance for development of the airport compatible land use program.
- Review and refine project scope of services as appropriate.

Task 1 Products

- Final Scope of Services
- Airport compatible land use working group member list with contact information

Task 2: Develop FAR Part 77 Surface Layers and airport noise contours in GIS Format

For Task 2 Mead & Hunt staff will provide guidance to PSRC staff in the development of FAR Part 77 surfaces and airport noise contours in PSRC's existing GIS database. PSRC staff will prepare actual Part 77 surface layers and noise contours.

- Research the extent of existing FAR Part 77 and noise contour mapping for airports in the PSRC region. For airports with existing mapping, determine whether existing mapping is appropriate for use in this program, or whether new mapping is needed. Based on the results of this analysis, prepare a list of airports showing those for which existing mapping is sufficient to meet the needs of this program and those for which new FAR Part 77 and/or noise contour mapping is needed. This will be the basis for possible changes to the project budget.
- Develop standard GIS templates for mapping FAR Part 77 surfaces (primary, approach, transitional, horizontal, and conical) for airport runway and approach types.
- Apply templates at each applicable airport in the PSRC airport system to develop electronic maps of imaginary surfaces.
- Prepare generalized graphical images/photos/drawings as needed to portray a visual representation of the Part 77 surfaces.
- For airports with noise contours, the existing files, if in an electronic format, will be inserted in the GIS database to provide additional background information.
- To assist those airports without noise contours, a brief guidance document will be developed that will provide airports and PSRC staff with a summary of the types of information necessary to be collected to conduct a noise analysis using the Integrated Noise Model (INM). For example, local agencies or airport sponsors would need to collect information regarding the local aircraft fleet, runway, operations, and other data to allow preparation of noise input files for running of the Integrated Noise Model (INM).

Task 2 Products

- Background paper defining FAR Part 77 surfaces and describing the methodology for mapping FAR Part 77 surfaces (this brief paper will suffice as a user's manual for PSRC staff, who will use the template as an ongoing tool).
- GIS maps of FAR Part 77 surfaces and noise contours for airports which all ready have noise contours in an electronic format.
- Background paper defining information necessary to conduct an INM noise analysis. This will define the various types of information and how to collect them but the information itself will not be collected for the study airports.

Task 3: Evaluate existing comprehensive plan policies and provisions as they relate to FAR Part 77 height hazards and airport noise

- Collect and review existing local agency comprehensive plan policies and provisions, zoning provisions, and development regulations
- Document existing land use controls and regulations related to Part 77 and noise, and determine adequacy of controls and regulations.
- Evaluate plan policies and provisions in light of existing State and PSRC requirements.
- Identify gaps where local agency plans and regulations do not meet State and/or PSRC requirements.
- Develop a set of suggested revisions or amendments to plan policies and provisions to address gaps for each land use jurisdiction associated with each of the 28 public use airports in the region (see Attachment A: Public Use and Military Airports included in the PSRC Regional Airport System).

Task 3 Products

- Tabulation of Task 3 results, in spreadsheet or other acceptable form (see Attachment B for sample)
- Technical paper describing Task 3 results and recommendations

Task 4: Develop Airport Compatible Land Use Guidelines related to FAR Part 77 height hazards and airport noise

- Collect and review existing and emerging sources of technical guidance on compatible land use in Washington and other states, including the WSDOT Airports and Compatible Land Use, Volume 1 (1999), California Airport Land Use Planning Handbook (2002), and others.
- Outline most appropriate information for use in the regional program.
- Identify data gaps and determine need for and availability of new data.

- Determine need for additional guidance not included in existing sources, and decide whether this can be accommodated within this work scope, or whether additional work is required.
- Develop a recommended set of compatible land use guidelines, including sample comprehensive plan policies and provisions, for use by PSRC and local agency planners.
- Develop recommendations for land use controls to implement comprehensive plans.
- Develop sample land use control and model height hazard zoning (based on FAR Part 77) ordinance language.
- Coordinate and work with one or two communities in a case study format. Apply the airport compatible land use guidelines, recommended land use controls, and sample plan language. Evaluate results and fine tune Task 4 products as needed.

Task 4 Products

- Revised PSRC Airport Compatible Land Use Guidelines
- Sample airport land use control and model height hazard zoning (based on FAR Part 77) ordinance language
- List of outstanding issues and data gaps requiring future study

Task 5: Revise PSRC Plan Review and Certification Process

- Using the results of Tasks 3 and 4, refine the plan certification process under GMA as it relates to compatible land use adjacent to general aviation airports.
- Develop airport compatible land use criteria to be used by Regional Council staff in their plan review and certification process, incorporating the guidelines prepared in task 4 above.
- Incorporate criteria into the Regional Council's *Plan Review Questionnaire*, which outlines GMA requirements and provides guidance to local planners in developing their plans. These criteria will provide more clarity for the PSRC plan review process by documenting the technical review criteria and establishing a consistent plan review process, which will be used throughout the region.
- Develop sample plan policies and provisions addressing airport compatible land use for incorporation into comprehensive plans.
- Using the results of task 4, review and revise, as needed, PSRC's *Airport Compatible Land Use and Local Comprehensive Plans - Background and Guidelines for Local Agencies*.

Task 5 Products

- Technical paper documenting the results of Task 5, including revised plan certification process, airport compatible land use criteria, revised *Plan Review Questionnaire*, sample plan policies and provisions, and airport compatible land use guidelines for use by local agencies.

Task 6: Program Implementation / PSRC Procedures

- Review and provide recommended revisions to the Multi-county Planning Policies (MPP) and Countywide Planning Polities (CPP) as needed to insure consistency with the airport compatible land use guidelines (Task 3) and the PSRC plan review and certification process (Task 4), and incorporate changes into Vision 2020 and Destination 2030. [this task is not FAA eligible].
- Develop additional implementation approaches as needed, in consultation with local agencies.
- Design an ongoing program for PSRC to collect and monitor comprehensive plans, land use and development data (including building permits), airport obstruction mapping, and plan implementation measures, related to airport compatible land use.
- Lay out a plan for communication and information exchange between PSRC, airports, and land use agencies, including staff-to-staff contacts, types of information needed, and timing.
- Monitor local agency plan update schedules to identify opportunities for timely coordination and points to influence future outcomes.
- Communicate the results of the work effort to local agencies responsible for land use planning around each public use airport within the region.

Task 6 Products

- Technical paper summarizing the results of Task 6
- Master calendar showing timing of local agency plan development and adoption process and relationship to new PSRC airport compatible land use requirements and review process

TASK IS CONTINGENT ON ADDITIONAL FAA FUNDING

Task 7: Build a regional airport compatible land use database related to FAR Part 77 height hazards and airport noise

Three options for Task 7 have been considered (each has implications on the budget):

Option A: Static maps

Option B: Interactive mapping (external web host)

Option C: Interactive mapping (internal web host)

- Develop a regional airport compatible land use database. The database design will use GIS, MS Access, Excel, and/or other programs to store and maintain airport compatible land use data for airports and their surrounding jurisdictions. The database will include: airport name and sponsor; surrounding jurisdictions and contact data (staff names, phone numbers, E-mails, etc.); existing land use; planned land use; status of plan policies and provisions; land use controls; local development trends (including building permits); and height hazard and obstruction data (as available). This task will include initial database design and data collection. The database will then be turned over to PSRC staff for on-going use in the

airport compatible land use program. This task will also include work with PSRC staff to coordinate/integrate the airport compatible land use database with other PSRC data products and analytical tools.

- Develop methodology for evaluating land use and development data with respect to FAR Part 77 height hazards and airport noise, and incorporate into the regional airport compatible land use and development database design.
- Assess the feasibility of using aerial photography, WSDOT's Height Hazard Database, Light Detection and Ranging (LIDAR) technology, National Aeronautical Charting Office (NACO) data, and other sources for initial mapping of object heights around the region's airports and to support an ongoing airport compatible land use program (including a possible FAR Part 77 airport obstruction component). Prepare recommendations regarding how this information could be incorporated into PSRC's airport compatible land use program.
- Coordinate with TRB's Airport Cooperative Research Program (ACRP) project related to use of LIDAR for airport obstruction mapping and incorporate results as appropriate.
- Collect data and populate the database with land use and development information, residential building permit data from PSRC's ongoing permit database system, and object height data.
- Evaluate land use and development data, building permit data, and airport obstruction data, and identify key issues (with respect to FAR Part 77 height hazards and airport noise) which may be addressed in PSRC's airport compatible land use program.

Task 7 Products

- Computer database containing all FAR Part 77 height hazard data and airport noise data
- Technical paper documenting the methodology and results of Task 7

ATTACHMENTS

Attachment A: Public Use and Military Airports included in the PSRC Regional Airport System

Attachment B: Sample of Data Storage Format for Airport Compatible Land Use Information