

Chapter 7

FINANCIAL ANALYSIS

Schedules of proposed development resulting from recommendations in this AMPU and estimates of development costs are discussed in this section. Recommended development is distributed over three periods (short-, intermediate- and long-terms), based on need (i.e. demand) and the funding capacity of the FAA, state and city). Private funding will also play a major role in future development at the airport.

Although each period has a designated length of time, projects identified for one period may overlap with another as demand and funding warrant. It should not be assumed that projects listed anywhere in this report will be funded or that they will take place in the period suggested. The Capital Cost tables presented later in this chapter list planning-level cost estimates and identify anticipated financial responsibility for each improvement, as well as the estimated cost shares for each funding agency.

Funding from the FAA and/or MDOT is not necessarily guaranteed because it is discussed in this document. At least two situations must occur before federal and state funding will be approved. First, the airport sponsor must indicate a willingness and financial capability to fund its share of the project; and second, the FAA and MDOT must agree to capitalize the project.

AIP FUNDING

The Airport and Airway Trust Fund provides the revenue source used to fund AIP projects. Taxes and user fees are collected from the various segments of the aviation community and placed in the Trust Fund. These revenue sources include taxes on airline tickets and freight waybills, international air carrier departure fees, and fuel taxes on aviation fuels.

Funding for the AIP is distributed under specific guidelines outlined in the 1982 Airport and Airway Improvement Act, as amended. The FAA distributes entitlement funding for commercial-service and primary airports based on the number of enplaned passengers using the airport. General aviation airports also receive their funding from the FAA, but individual states determine the distribution of funds based on a ceiling provided by the FAA.

The AIP assists the development of a nationwide system of public-use airports by providing funding for airport planning and development projects at airports included in the NPIAS (see Chapter 2, Page 15). It also provides funding for noise compatibility planning and noise compatibility programs established by the Aviation Safety and Noise Abatement Act of 1979.

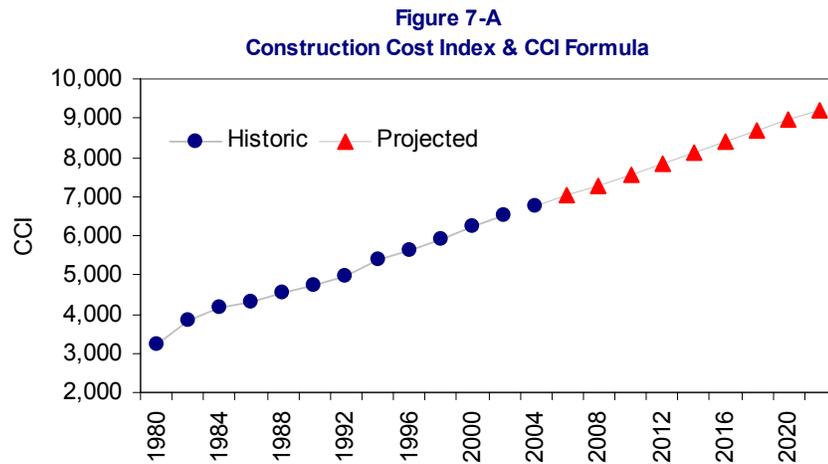
Funding of projects that qualify under the AIP is typically divided into three sources: federal, state and local. The Federal share of eligible costs for general aviation airports is currently 95 percent. The remaining five percent is divided between the state and airport.¹

Eligible projects include those improvements related to enhancing airport safety, capacity, security, and environmental concerns. In general, sponsors can use AIP funds on most airfield capital improvements or repairs except for terminals, hangars², and non-aviation development. Any professional services that are necessary for eligible projects - such as planning, surveying, and design - are eligible as is runway, taxiway, and apron pavement maintenance. Aviation demand at the airport must justify the projects, which must also meet Federal environmental and procurement requirements.

Projects related to airport operations and revenue-generating improvements are typically not eligible for funding. Operational costs - such as salaries, maintenance services, equipment, and supplies - are also not eligible for AIP grants.

CONSTRUCTION COSTS AND INFLATION

Construction and planning cost estimates presented in this section are based on 2003 dollar values. To compute up-to-date cost estimates or revisions at any time in the future, refer to the Construction Cost Index (CCI)³. The CCI is revised every week to reflect changes in typical labor rates and material costs. Historic and projected CCI annual averages are shown in Figure 7-A, and are based on an index of 100 for the



$$\frac{(2004\text{ Estimated Cost}) \times (\text{Future CCI})}{2004\text{ Average CCI}(7,115)} = \text{Future Projected Cost}$$

¹ The President signed (12/17/2003) a bill reauthorizing AIR-21 and the AIP. Under this new legislation the FAA’s share is now 95%. The state share is 2.5%, with the remaining 2.5% the responsibility of the local community.

² Under the new legislation signed by the President (see Footnote 1), site improvement for hangars may be eligible.

³ Engineering News Record (<http://www.enr.com/features/conEco/costIndexes/default.asp>)

base year 1913. By applying future CCI numbers as they are determined (using the formula shown in Figure 7-A), cost estimates in this section can be updated to more accurately reflect ongoing inflationary factors.

IMPLEMENTATION SCHEDULE

The implementation schedule and cost estimates will evolve from technical and financial considerations. The technical concerns include, for example, the time it will take to develop the engineering design and complete the construction. This assumes all necessary approvals and prerequisites (permitting and inspections) have been completed. Financial considerations that affect the schedule relate to the availability and timing of capital financing. Federal and state aid may not always be available at the current levels, current indebtedness could delay early debt incurrence, or the financial market may not be suitable for debt financing. Therefore, there may be some adjustment in scheduling priorities.

The participation of the airport in developing the implantation schedule is critical in that the sponsor, rather than the consultant, can ascertain and adjust priorities. Schedules should be based on the three planning periods. Capacity oriented development, as it relates directly to demand levels, should be scheduled at the occurrence of those demand thresholds rather than at a specific point in time. This would not typically apply to the near term improvements where forecasts are likely to be met.

The long-range plan identifies the ultimate role of the airport, the airport-design type, and the concept for accommodating ultimate facility requirements. The intermediate-range plan is a more detailed description for sizing airport requirements and layout. The short-term plan is an immediate action program that recognizes realistic local, state, and federal funding levels. The immediate action program can be a useful document for the AIP formulation, and should not overlook such items as pavement rehabilitation, obstruction-removal, safety areas, and other items. The Capital Improvement Program (CIP) development schedule and cost summary is presented in Table 7-1. This is an itemized table that breaks down of the FAA, state, local, and other funding for the improvements proposed by this Study. In addition, it shows construction and planning costs, estimated engineering fees, and contingencies (unprogrammed costs).

As noted, cost projections are based on year 2004 dollars and include estimated engineering fees and contingencies (an allowance for unprogrammed fees and costs). These projections however, should be used for planning purposes only and do not imply that funding for these will necessarily be available. Each year indicates construction initiation and therefore, any environmental/design efforts will need to precede construction.

SHORT-TERM IMPROVEMENTS

This subsection outlines the projects anticipated for the short-term or those projects needed to satisfy existing demand and to correct any safety deficiencies. The airport should begin implementing short-term recommendations now because they are a direct result of existing safety and capacity deficiencies. The following are the planned short-term projects.

- ❖ Prepare Environmental Assessment (EA)
- ❖ Develop Vegetation Management Plan (VMP)
- ❖ Develop Storm Water Pollution Protection Plan (SWPPP)
- ❖ Acquire property
- ❖ Acquire aviation easements
- ❖ Install obstruction lights
- ❖ Clear obstructions
- ❖ Runway resurfacing
- ❖ Runway 06 RSA reconstruction
- ❖ Replace runway lights
- ❖ Replace airport beacon
- ❖ Apron resurfacing
- ❖ Upgrade/repair security fence in terminal area
- ❖ Construct SRE Building
- ❖ Hangar development

Prepare Environmental Assessment

Early preparation of an EA is necessary because of the urgent need to improve the Runway 06 safety area, which will involve wetland grading and fill. An environmental assessment is a concise document developed using FAA Order 5050.4A *Airport Environmental Handbook*. The EA requires only enough analysis to:

- ❖ understand the problem and identify reasonable alternative solutions, including the proposed action, if the sponsor has chosen an action among alternatives;
- ❖ determine whether any potential impacts are significant, which would trigger the environmental impact statement process;
- ❖ provide the basis for the FAA's finding of no significant impact if the proposed action has no significant impacts;
- ❖ identify and satisfy special purpose Federal laws, regulations, and executive orders;

- ❖ identify and satisfy state and local laws and regulations applicable to the proposal; and
- ❖ identify any permits, licenses, or other entitlements required by the proposal.

The estimated cost of this EA is \$100,000 and is eligible for funding through the AIP.

Develop Vegetation Management Plan

A VMP is essential to ensure existing and future obstructions to the airport's imaginary surfaces are correctly removed and the ground returned to a natural state. Over 110 acres were identified as having obstructions (see Figure 2-C, Page 25), primarily consisting of trees, and many are located in wetlands and on private property. The only way to ensure these obstructions are controlled with a long-term plan is through the development of a VMP.

The VMP will become a stand alone planning document that will provide guidance with the implementation of a long-term vegetation maintenance program for the airport. It will include the identification of obstructions located on and off-airport, and will recommend control and removal methods and maintenance programs designed to achieve and maintain obstruction-free airspace. In addition to specifying exact areas for tree removal, it will also provide a detailed analysis of how obstructions not removed will be controlled through the installation of obstruction lights. It will be prepared in accordance with FAA regulations, include FAR Part 77, as well as local, state and federal environmental regulations associated with obstruction removal projects. The estimated cost of a VMP for this airport is \$60,000.

Develop Storm Water Pollution Prevention Plan

Storm water runoff is simply rain water or snow melt that runs off the land and into streams, rivers, and lakes. When storm water runs through sites of industrial activity it may pick up pollutants and transport them into national waterways and effect commercial fisheries, restrict swimming areas, and affect the navigability of the nation's waters. Storm water runoff from residential, commercial, and industrial areas is responsible for 21 percent of impaired lakes and 45 percent of impaired estuaries in the United States. In addition, in the Mid-Atlantic Region alone, storm water is responsible for 5,265 miles of impaired streams.⁴

To help curb the problem of storm water runoff pollution the EPA (Environmental Protection Agency) has developed a program under the Clean Water Act. A major part of this program is the NPDES (National Pollution Discharge Elimination System) which requires industrial activities, including airports, to register for a discharge permit. Many industrial activities can apply under a general permit. The airport must develop and implement a SWPPP that consists of at least five different phases: Planning and Organization, Assessment, BMP (Best

⁴ Environmental Protection Agency

Management Practices) Identification, Implementation, and Evaluation/Monitoring. The estimated cost of a SWPPP for the airport is \$20,000.

Acquire Property

Property acquisition through both fee simple and easements is recommended for several reasons. The airport presently sits in a small track of land that does adequately provide control over existing activities. The existing Runway 06 RPZ rests almost entirely off airport property and the existing Runway 06 RSA extends into private land as well. Extensive obstructions (mostly trees) exist in the primary and transitional Part 77 surfaces, many on private land along the airport's southern boundary.

It was recommended in Chapter 5 (*Alternative "A" Property Acquisition*, Page 105) that one parcel located west of the airport be acquired in fee simple. The estimated cost of acquiring this undeveloped land in fee simple is \$96,876, which may be eligible under the AIP. However, unlike other AIP projects, with land acquisition projects the sponsor is not reimbursed until after closing.

❖ Property assessed value.....	\$70,200
❖ Contingencies.....	10,530
❖ Acquisition fees	<u>16,146</u>
❖ Total	\$96,876

Acquire Avigation Easements

Additionally, 14 parcels were identified that contain obstructions that penetrate Part 77 imaginary surfaces. Acquisition in the form of an avigation easement was recommended (Chapter 5, Page 106). The estimated cost is \$27,600 per parcel for a total of \$386,400, which is AIP eligible. However, unlike other AIP projects, with easement projects the sponsor is not reimbursed until after the transaction is completed.

❖ Easement cost per parcel.....	\$20,000
❖ Total parcels.....	14
❖ Easement cost.....	\$280,000
❖ Contingencies.....	42,000
❖ Engineering/Planning.....	<u>64,400</u>
❖ Total	\$386,400
❖ Cost per parcel	\$27,600

Install Obstruction Lights

In those areas where property acquisition is not financially possible, the installation of obstruction lights was recommended. This includes the area along the airport's southern boundary where trees extended into the Part 77 transitional surface (see *Alternative "A" Part 77 Analysis*, Page 103, and Figure 5-C, Page 104). The lights will be solar-cell units mounted on poles (must extend above highest obstruction). This eliminates the need for extensive and expensive trenching and underground cables. The cost of installing seven obstruction lights is \$105,000.

❖ Lighting units (installed) on poles	\$105,000
❖ Contingencies.....	15,750
❖ Engineering.....	<u>30,188</u>
❖ Total	\$150,938

Clear Obstructions

Excluding the area where obstruction lights are recommended, there are approximately 92 acres of both private and public land that contain trees that must be removed or topped. These trees are obstructions to air navigation and must be controlled. The cost of tree removal, grubbing, grading and reseeding is approximately \$5,000 per acre for a total cost of \$460,000. These types of projects are normally eligible for AIP funding, but on a one time basis only. Once the trees are removed the airport must maintain the area free of obstructions, hence the need for a VMP addressed earlier (Page 164). This project will most likely be spread over several years, after completion of the VMP.

❖ Obstruction removal, grading, grubbing, seeding.....	\$460,000
❖ Contingencies.....	69,000
❖ Engineering.....	<u>105,800</u>
❖ Total	\$634,800

Runway Resurfacing

Runway 06-24 is in poor condition with a PCI rating of 65 (see *Runway Inventory*, Page 26). The last runway overlay occurred in 1992 (Table 2-3, Page 18). On-going maintenance, including crack sealing must occur to stretch out the life of the runway as long as possible. However, within the next two to three years the runway must be resurfaced, otherwise a full-depth reconstruction will be necessary at a considerably higher cost. The estimated cost in 2004 dollars for a resurfacing is less new runway lights (see Page 167) is \$730,000.

❖ Construction	\$600,000
❖ Contingencies.....	90,000
❖ Engineering.....	<u>40,000</u>
❖ Total	\$730,000

Runway 06 Safety Area Reconstruction

The Runway 06 safety area does not extend the required length (see *Runway Safety Area*, Page 26, and Figure 2-C, Page 28). The RSA is only 220 feet long, but should extend 300 feet under Aircraft Design Group II standards. The existing area drops off sharply into a ravine and wetland area (see *Wetlands Plan*, Figure 6-A, Page 150).

Reconstruction would require extensive fill and grading, which cannot be started until after completion of an EA (see Page 163). The estimated cost of the RSA reconstruction is \$276,000.

❖ Construction	\$200,000
❖ Contingencies.....	30,000
❖ Engineering.....	<u>46,000</u>
❖ Total	\$276,000

Replace Runway Lights

Several airport lighting upgrade projects were recommended (see Table 5-4, Page 115), two must occur in the short-term. The rotating beacon replacement can occur anytime in the next several years; however the runway light project should occur in concert with the runway resurfacing project. The estimated total cost is \$301,900.

❖ Replace Runway and Threshold Lights	\$210,000
❖ Contingencies and unprogrammed fees.....	31,500
❖ Engineering.....	<u>60,400</u>
❖ Total	\$301,900

Replace Airport Beacon

The airport rotating beacon is not FAA approved (see *Rotating Beacon*, Page 34). This unit should be replaced within the next few years at an estimated cost of \$8,050.

❖ Light unit installed	\$7,000
❖ Contingencies.....	<u>1,050</u>
❖ Total	\$8,050

Apron Resurfacing

Like the runway, the two airport aprons are in poor condition (see Figures 2-G, 2-H, 2-H, starting on Page 36). Immediate crack sealing will help prevent the need for full-depth reconstruction; however, both must be resurfaced in the next five years. Both aprons consist of about 105,000 square feet including the entrance taxiway. The estimated cost of resurfacing all three areas is \$434,700.

❖ Construction.....	\$315,000
❖ Contingencies.....	47,250
❖ Engineering.....	<u>\$35,000</u>
❖ Total.....	<u>\$397,250</u>

Upgrade/Repair Airport Security Fence

It was originally recommended that the airport install a full-perimeter security fence, however the airport sponsor elected not to pursue this project (see Preferred Alternatives, Page 137). Instead the airport will concentrate on protecting the terminal area, which is partially protected with a four foot fence around the terminal building and apron, with a rope barrier between the airport entrance road (Landry Street) and the main apron (see Figure 2-G, Page 36). The rope barrier must be replaced with a fence and locking gate, preferably controlled from inside the FBO. The same holds true fence around the apron. Sections of it must be replaced and a locking pedestrian gate installed, with access only by a passkey issued to trusted airport personnel and locally based pilots. The estimated cost is between \$5,000 and \$10,000 depending on the level of security.

Construct SRE Building

The airport acquired its own fleet of snow removal equipment in 2004, but does not have a permanent storage facility; a requirement of the FAA grant assurances program. A minimum 3,000 square foot facility is required to house the existing fleet. The estimated cost of constructing this AIP eligible facility is \$414,000.

❖ Construction.....	\$300,000
❖ Contingencies.....	45,000
❖ Engineering.....	<u>69,000</u>
❖ Total.....	<u>\$414,000</u>

Develop Hangars

It is estimated that the airport needs approximately 31 total hangar spaces between now and the end of the short-term. There are currently 26 spaces on the airport, so an additional six will be needed in the next 3-5 years at an estimated cost of \$35,000 each for a total cost of \$242,000, all privately funded.⁵

Total Short-Term Project Costs

Total short-term capital project costs are \$3,923,374. Short-term operations and maintenance (O & M) expenses are \$166,000. Table 7-1 shows the breakout by project and funding cost shares.

INTERMEDIATE-TERM IMPROVEMENTS

Several projects are recommended for consideration in the intermediate-term. In addition, those projects not completed in the short-term will typically be carried over, particularly those tied to demand, such as hangar development.

Install PAPI Runway 06

Runway 06 is the instrument runway and used primarily at night. As such, the existing VASI should be replaced by a PAPI system, which provides a more accurate glideslope. The VASI should be moved to the Runway 24 end, which has no visual approach system. The cost of this project is \$160,000.

Update Airport Master Plan

This report should be updated in the intermediate-term at an estimated cost of \$120,000.

Runway and Apron Crack Repair

Continuous inspection and repair of cracks on all airport pavement surfaces is essential. For planning purposes, the cost of repairs is included in this report.

⁵ As previously discussed, under newly signed legislation, hangar site development may now be eligible under the AIP; however, until all safety related improvements are completed, funding for projects of this nature is unlikely.

Install ASOS

A number of federal and state agencies have installed, and continue to install various automatic weather reporting systems. The most common system today is the automatic weather observation system, or ASOS. ASOS and its equivalent AWOS (automatic weather observation system) have been installed around the country, and continue to be deployed as funding permits by the FAA, National Weather Service, Department of Defense and state aviation agencies.

There are no federal contracts currently in place. Usually a state or airport will purchase an ASOS (or AWOS) with assistance from the AIP. Other funding opportunities do materialize periodically, particularly to those communities that take an active role in its pursuit.

An ASOS not only provides valuable data to arriving and departing pilots, it also aids in flight planning by providing data via direct telephone and over the internet, if so equipped. Additionally, the data is provided universally to television and radio outlets through the NWS, making it a vital tool to not only the aviation community, but the general public, police, fire, and other public officials.

The estimated cost of purchasing, site assessment, and installation is \$200,000.

Intermediate-Term Project Costs

Total intermediate-term capital project costs are \$1,068,500. Intermediate-term O & M expenses are \$231,150. Table 7-1 shows the breakout by project and funding cost shares.

LONG-TERM PROJECTS

Replace Runway 24 VASI with PAPI

By this planning period, the VASI, which was originally installed on the Runway 06 end and moved to this end in the short-term, will be ready for replacement because of age. It should be replaced with a PAPI at an estimated cost of \$72,000.

Runway and Apron Crack Repair

Continuous inspection and repair of cracks on all airport pavement surfaces is essential. For planning purposes, the cost of repairs is included in this report.

Master Plan Update

This report should be updated in the intermediate-term at an estimated cost of \$120,000.

Install Jet-A fuel system

It is anticipated that within the next 10 to 15 years the use of kerosene based jet fuel will equal or surpass sales and use of 100LL, the current predominant fuel in general aviation. Installation of a Jet-A fueling system will be required for the airport to remain competitive in the aviation market. Because fuel sales are a major portion of airport revenue, keeping pace is mandatory. The estimated cost of installing a system is \$50,000.

Long-Term Costs

Total long-term capital project costs, which is spread over 10 years, is \$911,500. Long-term O & M expenses are \$557,750. Table 7-1 shows the breakout by project and funding cost shares.

Table 7-1 Biddeford Municipal Airport Capital Improvement Plan (2005-2024)

Project/Capital Expense		Priority	Construction and Equipment	Engineering and Planning	Unprogrammed Fees and Costs (Contingencies)	Total Development Cost	FAA Funding (AIP)	MDOT/OPT Funding	Local Funding	Private Funding
SHORT-TERM (2005-2009)										
Capital Projects	Prepare Environmental Assessment (EA)	1	\$0	\$100,000	\$0	\$100,000	\$95,000	\$2,500	\$2,500	\$0
	Develop Vegetation Management Plan (VMP)	1	0	60,000	0	\$60,000	\$57,000	\$1,500	\$1,500	0
	Develop Storm Water Pollution Prevention Plan (SWPPP)	1	0	20,000	0	\$20,000	\$19,000	\$500	\$500	0
	Runway and apron crack repair	1	10,000	0	1,500	\$11,500	\$0	\$9,200	\$2,300	0
	Acquire property (1 parcel)	2	70,200	16,146	10,530	\$96,876	\$92,032	\$2,422	\$2,422	0
	Acquire easements (14)	2	280,000	64,400	42,000	\$386,400	\$367,080	\$9,660	\$9,660	0
	Install obstruction lights (7)	3	105,000	30,188	15,750	\$150,938	\$143,391	\$3,773	\$3,773	0
	Clear obstructions (92 acres)	3	460,000	105,800	69,000	\$634,800	\$603,060	\$15,870	\$15,870	0
	Runway resurfacing	4	600,000	40,000	90,000	\$730,000	\$693,500	\$18,250	\$18,250	0
	Runway safety area improvements (Runway 06 end)	4	200,000	46,000	30,000	\$276,000	\$262,200	\$6,900	\$6,900	0
	Runway and threshold lights	4	210,000	48,300	31,500	\$289,800	\$275,310	\$7,245	\$7,245	0
	Apron Resurfacing	5	315,000	35,000	47,250	\$397,250	\$377,388	\$9,931	\$9,931	0
	Construct SRE Building	5	300,000	69,000	45,000	\$414,000	\$393,300	\$10,350	\$10,350	0
	Replace airport rotating beacon	6	7,000	0	1,050	\$8,050	\$7,648	\$201	\$201	0
	Upgrade/repair terminal area security fence and gates	6	10,000	2,300	1,500	\$13,800	\$13,110	\$345	\$345	0
Develop hangars	7	242,000	55,660	36,300	\$333,960	0	0	0	333,960	
Total Short-Term Capital Improvement Costs			\$2,809,200	\$692,794	\$421,380	\$3,923,374	\$3,399,018	\$98,648	\$91,748	\$333,960
O & M	Maintenance (\$18,000/year)		90,000	0	13,500	103,500	0	0	103,500	0
	Utilities (\$2,000/year)		10,000	0	1,500	11,500	0	0	11,500	0
	Salaries (\$1,100/month)		66,000	0	9,900	75,900	0	0	75,900	0
	Total Short-Term Operations and Maintenance Costs			\$166,000	\$0	\$24,900	\$190,900	\$0	\$0	\$190,900
TOTAL SHORT-TERM (2005-2009)			\$2,975,200	\$692,794	\$446,280	\$4,114,274	\$3,399,018	\$98,648	\$282,648	\$333,960
INTERMEDIATE-TERM (2010-2014)										
Capital Projects	Install PAPI Runway 06 and Relocate	1	\$0	\$100,000	\$0	\$100,000	\$95,000	\$2,500	\$2,500	\$0
	Relocate Runway 06 VASI to Runway 24	1	0	60,000	0	\$60,000	\$57,000	\$1,500	\$1,500	0
	Runway and apron crack repair	1	10,000	0	1,500	\$11,500	\$0	\$9,200	\$2,300	0
	Master Plan Update	2	0	120,000	18,000	\$138,000	\$131,100	\$3,450	\$3,450	0
	Install AWOS	3	200,000	46,000	30,000	\$276,000	\$262,200	\$6,900	\$6,900	0
	Develop Hangars	4	350,000	80,500	52,500	\$483,000	\$0	\$0	\$0	483,000
Total Intermediate Short-Term Capital Improvement Costs			\$560,000	\$406,500	\$102,000	\$1,068,500	\$545,300	\$23,550	\$16,650	\$483,000
O & M	Maintenance (\$20,000/year)		100,000	0	15,000	115,000	0	0	115,000	0
	Utilities (\$2200/year)		11,000	0	1,650	12,650	0	0	12,650	0
	Salaries (\$1,500/month)		90,000	0	13,500	103,500	0	0	103,500	0
Total Intermediate-Term Operations and Maintenance Costs			\$201,000	\$0	\$30,150	\$231,150	\$0	\$0	\$231,150	\$0
TOTAL INTERMEDIATE-TERM (2010-2014)			\$761,000	\$406,500	\$132,150	\$1,299,650	\$545,300	\$23,550	\$247,800	\$483,000
LONG-TERM (2015-2024)										
Capital Projects	Replace Runway 24 VASI with PAPI	1	\$50,000	15,000	7,000	\$72,000	\$68,400	\$1,800	\$1,800	\$0
	Runway and apron crack repair	1	10,000	0	1,500	\$11,500	\$0	\$9,200	\$2,300	0
	Master Plan Update	2	0	120,000	18,000	\$138,000	\$131,100	\$3,450	\$3,450	0
	Install Jet-A fuel system	3	150,000	34,500	22,500	\$207,000	\$0	\$0	\$0	207,000
	Develop Hangars	3	350,000	80,500	52,500	\$483,000	\$0	\$0	\$0	483,000
Total Intermediate Short-Term Capital Improvement Costs			\$560,000	\$250,000	\$101,500	\$911,500	\$199,500	\$14,450	\$7,550	\$690,000
O & M	Maintenance (\$22,000/year)		220,000	0	33,000	253,000	0	0	253,000	0
	Utilities (\$2,500/year)		25,000	0	3,750	28,750	0	0	28,750	0
	Salaries (\$2,000/month)		240,000	0	36,000	276,000	0	0	276,000	0
Total Long-Term Operations and Maintenance Costs			\$485,000	\$0	\$72,750	\$557,750	\$0	\$0	\$557,750	\$0
TOTAL LONG-TERM (2015-2024)			\$1,045,000	\$250,000	\$174,250	\$1,469,250	\$199,500	\$14,450	\$565,300	\$690,000

Amounts are in 2004 dollars. See Figure 7-A, Page 162 to compute current costs.
Source: Dufresne-Henry, Inc., analysis

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REVENUE

The current financial status of the airport, including the current rate and fee structure was addressed in Chapter 2 (see *Financial*, Page 13). The airport appears to be meeting its financial needs in that revenue has exceeded expenses during the past two years analyzed. Table 7-2 that follows projects revenue throughout the entire planning period and is based on several assumptions that are addressed at the bottom of the table. Most importantly, the airport can produce sufficient revenue to pay for the proposed projects throughout the entire planning period without significantly raising fees beyond normal inflationary adjustments.

The airport charges a fair price for hangars and apron tiedown spaces, as well as fuel, which are all consistent in price with other airports of this size in the region. FBO lease agreements allow for fair and competitive increases in fees and do not seem to have a detrimental impact on business.

The single most important element tied to future revenue growth will be the timely and financially responsible development of new hangars and increased ramp space. As already addressed, the steady forecasted growth in based aircraft will place an increase demand on the need for more hangars. Unfortunately, hangar development is not eligible for AIP grant funding, and in most cases must be funded through private sources. However, apron development is and should be pursued as soon as possible.

Periodic adjustments in lease rates, apron/tiedown rates, and fuel flowage fees should be made; however, with one other key airport in the region (Sanford Municipal), remaining competitive is essential. Realistically, no new fees should be considered until several improvements are made, such as obstruction removal, a security fence, and expanded apron. Some key changes have already occurred that will have a positive impact on the airport. They include new the appointment of an airport manager and a new FBO operator. These two intangible changes are signs that the city and airport are serious about the facility, and both have had an impact on the airport already.

Table 7-2 Revenue Projections

Source	Short-Term		Intermediate-Term		Long-Term	
	Annual	Total	Annual	Total	Annual	Total
Fuel Flowage Fees	\$2,300	\$11,500	\$2,500	\$12,500	\$2,700	\$27,000
Tie-Downs	6,200	\$31,000	7,300	\$36,500	8,700	\$87,000
Hangar Land Lease	12,200	\$61,000	18,500	\$92,500	26,500	\$265,000
FBO Lease	12,800	\$64,000	13,500	\$67,500	18,300	\$183,000
Airport Revenue	\$33,500	\$167,500	\$41,800	\$209,000	\$56,200	\$562,000
Property Tax	\$25,700	\$128,500	\$34,600	\$173,000	\$58,200	\$582,000
Total Revenue	\$59,200	\$296,000	\$76,400	\$382,000	\$114,400	\$1,144,000

Notes:

1. These are average annual projections. Revenue at the beginning of each planning period will be lower than the end of each period.
2. Fuel flowage fees are based on a constant rate of \$0.05 per gallon and extrapolated for forecasted growth in operations.
3. Tie-down fees are based on the current rate of \$30.00 per month with allowance for inflation and extrapolated for forecasted changes in based aircraft using apron space v. hangars.
4. Hangar land lease fees are based on the current rate of \$400 per year with allowance for inflation times the number of estimated units on the airfield.
5. FBO lease is based on the current rate of \$1,100 per month and adjusted for inflation.
6. Property tax is based on the current city assessed value and mill rate of \$17.45 per thousand and increased for the number of estimated units with an average increase of 1% per year.

Source: Dufresne-Henry, Inc., based on current rates and charges and FY-2001 and 2002 revenue obtained from the City Comptroller and Assessors offices (refer to Chapter 2, Table 2-1, Page 16)

FINANCIAL SUMMARY

Table 7-1 (Page 171) lists each of the short-, intermediate-, and long-term projects just described, with a financial breakdown. The current and anticipated funding sources are listed along with their anticipated share of costs. This list is not a commitment for funding and does not necessarily reflect the timing or priority of each project listed. It is based on data obtain over the course of the past year in developing this report and reflects demand related issues as a result of forecasts developed herein, and capacity requirements based on current FAA design criteria. In addition, the cost data shown is in 2004 dollars and will go up with each passing year as a result of inflation, changes in labor laws and rates, etc. The amounts shown must be adjusted using the formula shown in Figure 7-A (Page 161), using current design changes.