7. Implementation Plan

The implementation plan presented in this section outlines a feasible development sequence and schedule for the recommended Airport Development Plan (ADP) through the planning period (2029). The ADP includes all recommended Master Plan development described in previous sections of this report.[1] The development sequence of projects in the implementation plan is subsequently assessed in the financial plan described in Section 8. Cost estimates that were developed in support of the implementation plan and the financial plan are also included in this section.

7.1 Factors Affecting Implementation and Phasing

The overall goal of the implementation plan is to ensure that critical projects are in place when they are needed. Factors affecting the implementation and phasing of projects included in the ADP include the following:

- **Demand** – In some cases, the need for future development correlates with specific levels of demand. For example, taxiway/taxilane development proposed for the east side of the Airport will be necessary to accommodate projected demand for hangar facilities to accommodate based aircraft, as well as to support other aviation-related development. Factors that could influence the volume and type of growth at the Airport include the strength of the economy and fleet mix changes. These factors may necessitate implementation of certain projects sooner than expected, or may push implementation of certain projects beyond the planning period.
- **Funding** – The availability of funds often affects the implementation schedule for airport development projects. Funds available for capital development projects at TWF in any given year are limited. In some cases, funds may need be saved over the course of multiple years in order to construct a large project. In other cases, the implementation schedule for certain projects may need to be shifted due to a lack of funding that was previously anticipated, or to take advantage of unexpected funding opportunities. Section 8 describes the funding plan for the ADP.

[1] It should be noted that the projects included in the ADP account only for future capital development projects recommended in the Master Plan Update and do not reflect the needs of the Airport sponsor to undertake additional projects through the planning period related to maintaining existing Airport facilities/conditions. The financial impacts of these additional projects, in conjunction with the projects included in the ADP, are analyzed in Section 8.

- **Priorities** – In some cases, projects may not necessarily be based on or triggered by future demand. For example, realignment of the crosswind runway has been proposed to correct existing deficiencies relative to FAA design standards. Consequently, implementation of this project could be undertaken at any point within the planning period, at the discretion of the Airport sponsor, in consideration of factors such as available funding and the need to implement projects that are more sensitive to increasing demand.
- **Enabling projects** – In some cases, particularly for larger capital development projects, one or more projects or actions may need to be completed in order to fully implement the project. Therefore, the implementation plan must account for the time necessary to complete these enabling projects prior to construction. For example, prior to constructing the replacement crosswind runway, an environmental assessment will need to be completed, followed by design. When factoring in a phased construction schedule, full implementation of the runway and associated taxiways may take several years from initiation of the environmental assessment.

7.2 Phased Implementation Plan

In consideration of the factors identified previously, this subsection describes a potential phasing plan for project development, identifying the individual projects in the ADP, and illustrating the progression of development to transition the Airport from existing conditions through full development of the ADP. **Exhibit 7-1** presents the recommended ADP and illustrates the potential implementation schedule for each project.

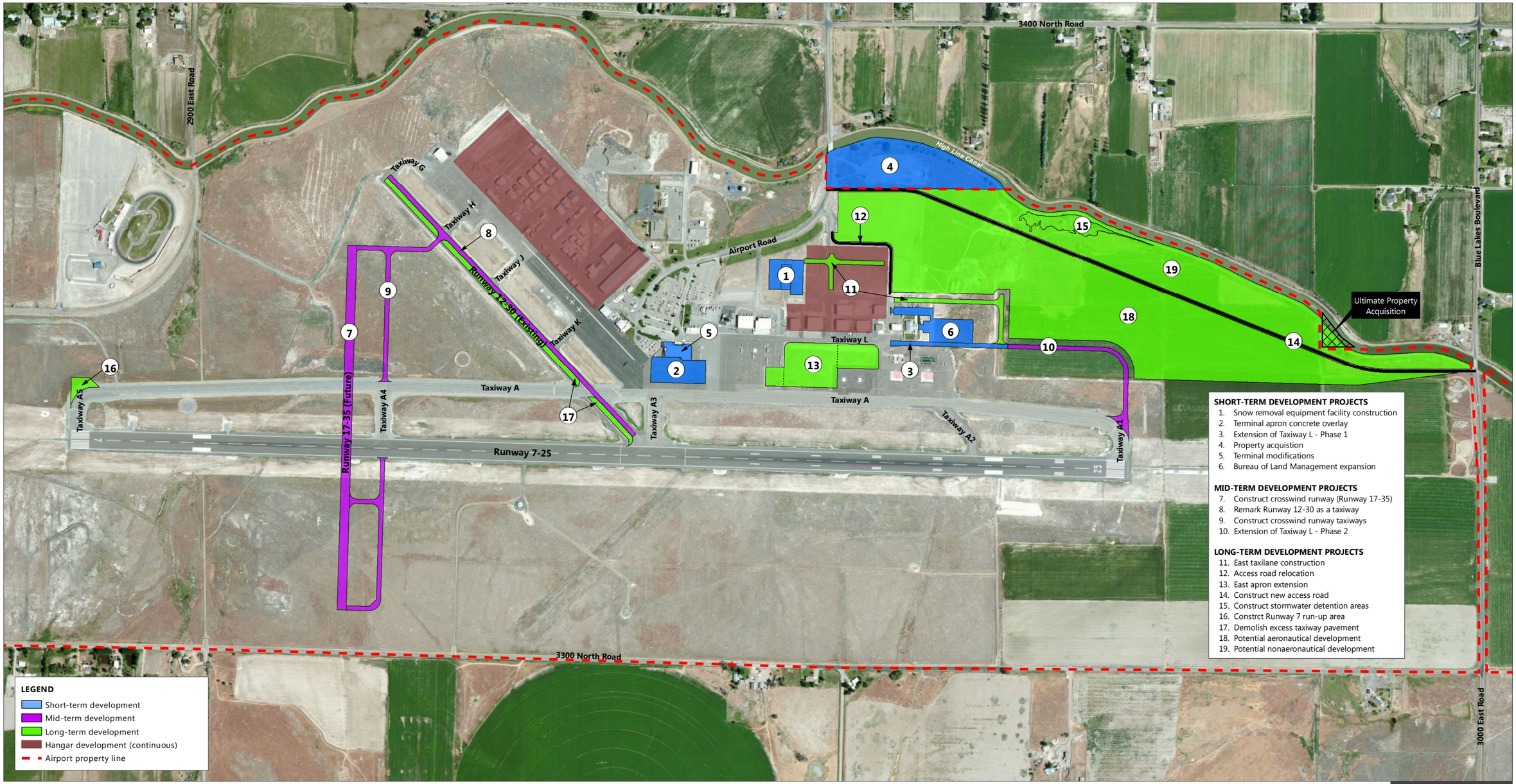
The implementation plan is divided into three phases. The first phase covers short-term development (2013-2016). The second phase covers mid-term development (2017-2021), and the third phase covers long-term development (2022-2029). The following subsections include the projects for all three phases of the ADP. All years are based on the City's fiscal year, which runs from October 1 through September 30.

7.2.1 SHORT-TERM PROJECTS (2013-2016)

Table 7-1 describes the short-term projects, which consist of Airport facilities, infrastructure, and other actions to be developed/completed in the immediate future (by 2016).

It is anticipated that the terminal modification study will be conducted as part of the pre-design phase for the terminal modification project, and will define the nature and extent of future terminal modifications. Full design and construction of the recommended terminal modifications would be anticipated to occur shortly after completion of the terminal modification study, provided that adequate funding is available and all appropriate approvals and permits have been received.

The environmental assessment and design conducted for the replacement crosswind runway represent the two enabling projects anticipated to be completed prior to actual construction of the runway. It is anticipated that each of these tasks would take approximately one year to complete, with design commencing subsequent to environmental approval.



SOURCES: ESRI, May 2010 (Bing Maps aerial photograph); Riedesel Engineering, Inc., January 2011 (airport property line); City of Twin Falls, Airport Department and Riedesel Engineering, Inc., December 2012 (project implementation schedule).
PREPARED BY: Ricondo & Associates, Inc., December 2012.

EXHIBIT 7-1

NORTH 0 800 feet

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Implementation Plan for Master Plan Projects

Table 7-1 Short-Term Development Projects (2013-2016)

PROJECT NAME	PROJECT DESCRIPTION	EXHIBIT 7-1 REFERENCE
Snow Removal Equipment Facility Construction	Construction of a snow removal equipment storage building, and associated apron	1
Terminal Apron Mill and Concrete Overlay	Strengthening of the terminal apron by milling the existing asphalt pavement and applying a concrete overlay	2
Terminal Modification Study	A study to further define and assess potential modification/ expansion of the passenger terminal building (see Section 5.2.2 for additional details)	Not Depicted
Extension of Taxiway L - Phase 1	Phase 1 of a planned extension of Taxiway L to be ultimately connected with Taxiway A	3
Reeder Property Acquisition	Acquisition of approximately 10.5 acres of property located along the High Line Canal and adjacent to Airport Road	4
Terminal Modifications	Modification/expansion of the passenger terminal building to accommodate demand and improve the overall passenger experience	5
Environmental Assessment for Crosswind Runway	An Environmental Assessment for construction of replacement crosswind Runway 17-35	Not Depicted
Design Cross Wind Runway	Engineering design for replacement crosswind Runway 17-35	Not Depicted

SOURCES: City of Twin Falls, Airport Department, and Riedesel Engineering, Inc., December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

Planned expansion of BLM facilities at the Airport is not listed in Table 7-1 because such development would be conducted and funded solely by the BLM. The BLM will also ultimately determine an implementation schedule for its proposed development. However, for purposes of this implementation plan, it is assumed that the BLM will undertake development projects within the short-term timeframe.

Additional projects that are separate from the Master Plan ADP, but are anticipated to be completed within the short-term development period, include the following:

- Pavement design and reconstruction
- Pavement Condition Index (PCI) survey/report
- Runway 7-25 slurry seal/paint/remark as Runway 8-26
- Tree obstruction removal
- New Airport beacon
- Updates to the Airport's lighting control system
- New snow removal equipment and ARFF vehicle
- Pavement maintenance (slurry seal/crack fill)

7.2.2 MID-TERM PROJECTS (2017-2021)

Table 7-2 describes the mid-term projects, which consist of airfield development to be completed between 2017 and 2021.

Table 7-2 Mid-Term Development Projects (2017-2021)

PROJECT NAME	PROJECT DESCRIPTION	EXHIBIT 7-1 REFERENCE
Construct Crosswind Runway (Runway 17-35)	Construction of the replacement crosswind Runway 17-35	7, 8
Construct Crosswind Runway Parallel Taxiway and Connections	Construction of the parallel taxiway and connector taxiways associated with crosswind Runway 17-35	9
Extension of Taxiway L - Phase 2	Completion of Taxiway L extension to Taxiway A	10

SOURCES: City of Twin Falls, Airport Department, and Riedesel Engineering, Inc., December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

As shown on Table 7-2, mid-term development related to the ADP is anticipated to be dominated by airfield development projects. In particular, construction is anticipated for the replacement crosswind Runway 17-35 and associated taxiways. Due to funding and construction season limitations, it is anticipated that construction of the replacement crosswind runway and construction of the associated taxiways will occur in different, but consecutive construction seasons.

As discussed in Section 5, construction of Runway 17-35 will necessitate temporary closure of a portion of Taxiway A and Runway 7-25, since some milling/grading and repaving will be required on both Taxiway A and Runway 7-25 such that the intersection of those pavements with Runway 17-35 meets FAA grade/slope requirements. However, it is anticipated that construction would be scheduled to take place during low activity periods and construction activities will be managed in such a way as to limit the overall downtime of Taxiway A and Runway 7-25.

It is anticipated that Runway 17-35 will be commissioned and open for aircraft operations once construction has been completed. At the time Runway 17-35 is officially commissioned, existing Runway 12-30 will be decommissioned and no longer usable as a runway. The runway construction project includes remarking existing Runway 12-30 as a taxiway. Initially, all pavement not designated as taxiway pavement would be painted and/or marked in such a way as to clearly indicate pavement not suitable for aircraft taxi operations. As funding permits, it is anticipated that this excess pavement would be demolished.

Until the parallel taxiway and connector taxiways are constructed, it is anticipated that aircraft would taxi to/from Runway 17-35 using back-taxi procedures. For example, aircraft landing to the south on Runway 17 would come to a stop, turn around on the runway, taxi north across Runway 7-25, and turn east onto Taxiway A. Likewise, aircraft taking off on Runway 17 would take Taxiway A west, turn north onto Runway 17-35, turn around at the end of the runway, and then takeoff. Similar procedures would be used for landings and takeoffs conducted on Runway 35. ATCT procedures would be in place to ensure the safety of these operations.

Additional projects that are separate from the Master Plan ADP, but are anticipated to be completed within the mid-term development period, include the following:

- PCI survey/report
- PAPI/REIL upgrades
- Master Plan Update
- Pavement maintenance (slurry seal/crack fill)

7.2.3 LONG-TERM PROJECTS (2022-2029)

Table 7-3 describes the long-term projects, which consist of Airport infrastructure to be developed/ completed in between 2022 and 2029 (the end of the planning period).

Table 7-3 Long-Term Development Projects (2022-2029)

PROJECT NAME	PROJECT DESCRIPTION	EXHIBIT 7-1 REFERENCE
East Apron Extension and East Taxilane Construction	Extension of east apron area, northern extension of Taxilane 13, new east/west taxilane, eastern extension of Taxilane 14 with connection to extended Taxiway L, and relocation of access road	11, 12, 13
Construct Access Road – Blue Lakes	Construction of a new/secondary Airport access road from Blue Lakes Boulevard to Airport Road	14
Construct Stormwater Detention Areas	Construction of stormwater detention areas on the east side of the Airport along the High Line Canal	15
Construct Runway 7 Run-up Area	Construction of a run-up area adjacent to the Runway 7 threshold	16
Demolish Excess Taxiway Pavement	Removal of excess pavement not required for the taxiway that would be converted from former crosswind Runway 12-30	17

SOURCES: City of Twin Falls, Airport Department, and Riedesel Engineering, Inc., December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

Construction of the east taxilanes will increase the amount of lease are available for general aviation or other aviation-related development (i.e., hangars). However, it is assumed that general aviation hangar development, both on the east side and west side of the Airport, could and will occur throughout the planning period and would be financed by the tenant. Therefore, for purposes of the implementation plan, such development is not depicted to occur in any one timeframe.

Exhibit 7-1 depicts areas of potential long-term aeronautical and nonaeronautical development on the east side of the Airport. It is anticipated that the new/secondary access road and stormwater detention area would need to be constructed prior to any significant development in these areas. While such development is anticipated to take place in the long-term timeframe, the projects could be re-prioritized if demand warrants development of the aeronautical/nonaeronautical areas during an earlier timeframe.

7.3 Environmental Considerations

NEPA requires environmental processing for all airport development projects that require a federal (i.e., FAA) action for implementation. The three levels of environmental processing include a categorical exclusion, an environmental assessment, and an environmental impact statement. A determination of categorical exclusion identifies that a project or projects would not have an environmental impact. An environmental assessment is needed when it is determined that a project or projects may have an environmental impact. If it is determined that an impact will occur and it cannot be mitigated, an environmental impact statement is required to make a final determination on the viability of the project.

The effects of development on environmental resources have been considered throughout the master planning process, from defining environmental resources in the Airport environs (see Section 2) to incorporating environmental considerations into the evaluation of development concepts (see Section 5). These considerations provide a general understanding of the environmental issues related to the projects included in the ADP.

An overview of environmental conditions related to the ADP projects was assessed in relation to the environmental impact categories outlined in FAA Order 1050.1E and typically considered under NEPA. Based on known environmental conditions at the Airport (defined in Section 2) and the nature of the development associated with the recommended ADP projects, the following potential environmental impacts have been preliminarily identified:[2,3]

- **Air quality** – All construction projects at the Airport may generate temporary air pollutant emissions resulting from engine exhaust, earthmoving activities, and other sources. The nature and amount of such construction activity would dictate whether or not resulting emissions would be considered significant. In particular, grading/earthmoving activities related to construction of the replacement crosswind runway and associated taxiways would be a major source of fugitive dust.
- **Biotic resources** – Subsequent environmental study would determine any potential impact related to the loss of habitat for wildlife and/or rare plant species.
- **Compatible land use** – Existing policies to prevent land use that is incompatible with TWF can be strengthened through development of a comprehensive land use compatibility plan and zoning ordinance, as recommended in Section 6. Specific impacts would need to be determined through a future noise analysis.

[2] Environmental impact categories listed in FAA Order 1050.1E that are not applicable to TWF or would not be expected to be significantly impacted as a result of implementation of the ADP, are not listed/described in this section.

[3] More specific environmental analyses will be required when individual projects near the development stage and are submitted for environmental review.

- **Construction impacts** – Temporary pollutant emissions would be generated by construction activities. Runway restrictions would be implemented during construction of Runway 17-35.
- **Energy supplies, natural resources, and sustainable design** – Planned development and facility expansions may increase energy consumption at TWF.
- **Environmental justice and socioeconomic impacts** – It is anticipated that proposed development would avoid compatible land use and noise issues, although further study to this effect would be required. Terminal building modifications may potentially impact terminal businesses, such as the restaurant. No long-term economic impacts to on- or off-Airport businesses would be anticipated as a result of recommended development.
- **Farmlands** – Areas designated as "prime farmland if irrigated" occur on and around the Airport. Determination of a significant impact to these lands would require additional investigation to determine if a dependable irrigation source of adequate quality is available within the prime lands.
- **Hazardous materials** –Runway 17-35 has been planned to remain clear of the former County landfill, which may contain hazardous materials, although the RPZ off of the Runway 17 threshold would encompass the landfill area. Best management practices would reduce the potential for releases of hazardous materials.
- **Historic, architectural, archaeological, and cultural resources** – The former County landfill site may be eligible for listing on the NRHP. Any development activities near the High Line Canal will need to be conducted in consideration of the historic nature of the canal.
- **Noise** – Detailed noise analysis related to Runway 17-35 would be conducted, as needed, through a future environmental assessment. Previous noise analyses suggest minimal area affected by the DNL 65 contour produced by the existing crosswind runway. Land use planning would minimize any potential impact to sensitive land uses.
- **Solid waste** – Solid waste would be generated during construction activities. There are no known capacity issues with existing landfills with regard to accommodating the increased solid waste.
- **Water quality** – Stormwater pollution prevention practices would be implemented during construction to prevent significant impacts to surface water quality. An increase in impervious surfaces at the Airport would result in increased stormwater runoff.

7.4 Implementation Plan Project Costs and Schedule

Table 7-4 presents the preliminary cost estimates and schedule for all ADP projects. This table breaks down the projects by phase, identifies preliminary project cost estimates, and identifies the projected year of implementation for each project. The cost estimates are provided in current (2012) dollars and account for contingencies, as appropriate. It should be noted that the preliminary cost estimate for passenger terminal modifications is based on an assumed increase in square footage, although the proposed terminal modification study will determine a more detailed cost estimate for any necessary modifications. The estimated cost of the ADP (in current dollars) is estimated to be approximately $13.9 million.

Table 7-4 Airport Development Plan Estimated Costs and Schedule

PROJECT NAME	ESTIMATED DEVELOPMENT YEAR	ESTIMATED PROJECT COST [1/]
Short-Term Development Projects		
Snow Removal Equipment Facility Construction	2013	$1,603,362 [2/]
Terminal Apron Mill and Concrete Overlay [3/]	2013	600,000
Terminal Modification Study	2014	100,000
Extension of Taxiway L - Phase 1	2014	150,000
Reeder Property Acquisition	2014	80,000
Terminal Modifications	2015	750,000
Environmental Assessment for Crosswind Runway	2015	250,000
Design Cross Wind Runway	2016	300,000
		$3,833,362
Mid-Term Development Projects		
Construct Crosswind Runway (Runway 17-35)	2017	$3,200,000
Construct Crosswind Runway Parallel Taxiway and Connections	2018	1,800,000
Extension of Taxiway L - Phase 2	2021	1,410,000
		$6,410,000
Long-Term Development Projects		
East Apron Extension and East Taxilane Construction	2025	$1,500,000
Construct Access Road – Blue Lakes	2026	900,000
Construct Stormwater Detention Areas	2026	250,000
Construct Runway 7 Run-up Area	2026	250,000
Demolish Excess Taxiway Pavement	2029	750,000
		$3,650,000
Total Airport Development Program (ADP) [4/]		**$13,893,362**

Notes:

1/ Estimated project costs are in current 2012 dollars.

2/ Costs for construction of the snow removal equipment facility reflect actual bids received November 2012.

3/ The terminal apron concrete overlay project is part of a broader apron reconstruction and apron mill and overlay project with a total estimated cost of approximately $2.8 million.

4/ Estimated costs for the ADP account only for future capital development projects recommended in the Master Plan Update and do not reflect the needs of the Airport sponsor to undertake additional projects through the planning period related to maintaining existing Airport facilities/conditions.

SOURCES: City of Twin Falls, Airport Department, and Riedesel Engineering, Inc., December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.