

DATE: June 20, 2018
TO: Cascade Locks Project Steering Committee
FROM: Terry Moore, Matthew Craigie, Margaret Raimann
SUBJECT: Cascade Locks Airport Study:
Development Options Final Report

The Port of Cascade Locks, with the support of the City of Cascade Locks and the State of Oregon, is evaluating options for future uses at the Cascade Locks Airport. This document is the final report of its preliminary investigation.

The purpose of this report is to describe a range of possible future uses, and the pros and cons of each. The report describes six future development options for the Cascade Locks airport that cover a range of possibilities: (1) no changes (status quo); (2) an expansion of airport facilities; (3) joint use of the property for aviation and other uses; and (4) conversion of the property from aviation to residential, commercial, or industrial use. The report is supported by technical appendices containing reports on existing conditions, and summaries and minutes of Steering Committee meetings.

A Project Steering Committee (PSC) comprising members of the community, pilots, and public agencies met between December 2017 and May 2018 to discuss future development options for the Cascade Locks Airport. In May 2018, it approved this report. In doing so, it is *not* making a recommendation about a preferred and agreed upon development option. That decision will be made, ultimately, by local and state public officials. Rather, the PSC's approval means that it believes that this report does a reasonable job of objectively representing the development options and the issues and perspectives associated with each.

1 Background

The Port of Cascade Locks (the Port) hired ECONorthwest and Century West Engineering (the consultant team) to provide technical analyses in support of a project to consider changes to uses at the Cascade Locks Airport. Such analysis included an evaluation of conditions (e.g., use of the airport, historical and likely growth in Cascade Locks, opinions of airport users and the broader community about current and future uses).

The Port formed a Project Leadership Team (PLT) and Project Steering Committee (PSC) to evaluate and discuss the results of the analyses during meetings throughout the process. The original scope of work aimed at having the PSC agree on a preferred option for future development at the airport property. Over the course of the project, it became apparent that consensus would not be reached among the PSC members: they represented different interests with strong positions. The PLT therefore decided to ask the PSC to take a smaller, achievable step: to review, amend as necessary, and ultimately agree that the descriptions of the development options were reasonably accurate and did a fair job of representing different interests.

At the first PSC meeting (December 2017), members shared their priorities for the future of the airport property. The discussion highlighted the divergent stakeholder interests and the need to solicit more input from a wider community. In response, the Port organized a Town Hall

meeting (February 2018) to gather broad community input on the existing and future use of the airport property.

After the first PSC meeting, the consultant team conducted technical analyses examining the existing conditions that would influence any decisions made regarding the potential future uses of the airport property. These analyses included considerations of demographic and economic trends, current land uses and development capacity within the community of Cascade Locks, and aviation usage at the airport property.

At the second PSC meeting (March 2018), the consultant team presented the results of two technical memoranda (demographic and economic conditions, and aviation conditions). After discussion, the PSC directed the consultant team to explore several options for the future development of the airport. These included:

- Leaving the airport as-is (status quo)
- Leaving the aviation functionality of the airport intact and developing on surplus land at the fringe of the state-owned properties
- Removing the airstrip and redeveloping the property into residential, commercial, or industrial uses.

At the third PSC meeting (May 2018), the consultant team presented a draft version of this report, which included the analyses of the development options. The purpose of reviewing the report with the PSC was to confirm the facts presented in the report, and to correct any inaccuracies or misleading statements. This final report includes the clarifications and corrections agreed upon by the PSC during the May 2018 meeting.

This report has five sections including this introduction:

- Section 1: Background
- Section 2: Methods
- Section 3: Evaluation of Development Options
- Section 4: Concluding Observations
- Section 5: Appendices

2 Methods

The broad purpose of this project never changed: take some first, fact-gathering steps in what would likely become a longer process of discussion and negotiation regarding the future use of the airport. What *did* change during the course of the project was the expectations for (1) the final recommendations of the PSC, and (2) the report in support of those recommendations. The PLT determined that the PSC's purpose should not be to provide a consensus recommendation regarding the future use of the airport property, but to confirm that several options for the airport's future are factually correct and reasonably assessed by the consultant team.

The Port, the City of Cascade Locks, and the State of Oregon will use this report and supporting information produced during this project as a basis for discussion and decision-making.

The main components of the research and facilitation follow:

- **Existing Conditions.** The consultant team produced two technical memoranda for the PSC to review at the second PSC meeting. ECONorthwest completed an economic development existing conditions analysis, and Century West completed an aviation conditions analysis for the airport property. These memoranda are provided in the appendix to this report. The PSC used the information in these reports to understand the past, present, and potential future of the airport property. These technical analyses formed the foundation of understanding for the status of the airport property, enabling informed discussions on the property’s potential future.
- **Stakeholder Priorities.** Many members of the PSC represent various interests in the use of the Cascade Locks Airport. The Port and City of Cascade Locks represent the broader community and have a responsibility to uphold statewide land use goals and policies. Pilots that use the facility are interested in a continuation of the aviation function of the airport. Cascade Locks community members have a range of interests, from keeping the airport open to replacing it entirely. Based on discussions during the project—at PSC meetings, during the Town Hall, and conversations with the Port, City, Oregon Department of Aviation, and others—Exhibit 1 describes the priorities of the airport’s stakeholder groups. These priorities helped form the criteria for evaluating future development options of the airport property.
- **Future Uses.** The second PSC meeting concluded with direction to the consultant team to consider a range of development options for the airport property. The consultant team, with the PLT, concluded that six options would generally cover the range of possibilities:¹
 1. *Status Quo.* Keep the airport open and functioning with no upgrades or improvements
 2. *Enhanced Aviation Use.* Keep the airport open and functioning with additional improvements to increase or improve aviation use.
 3. *Airport with Additional Residential Use.* Keep airport open and functioning and redevelop adjacent property with residential use.
 4. *Airport with Additional Commercial or Industrial Use.* Keep airport open and functioning and redevelop adjacent property with a compatible commercial or industrial use.

¹ Some of the options could be combined (e.g., it would be possible to add both residential and commercial development in options 3 and 4, or 5 and 6).

5. *Redevelop as Residential Use.* Remove airport and redevelop entire property with residential use.
6. *Redevelop as Commercial or Industrial Use.* Remove airport and redevelop entire property with commercial or industrial use.

Section 3 provides more information on these options including estimated development needs, potential impacts for development, and an assessment based the evaluation criteria described below.

Exhibit 1. Summary of Stakeholder Priorities

Stakeholders	Priorities
Port of Cascade Locks	<ul style="list-style-type: none"> • Efficient development of land in city limits, especially considering the restrictions of expanding the UGB • Opportunities for effective economic development
City of Cascade Locks	<ul style="list-style-type: none"> • Efficient development of land in city limits, especially considering the restrictions of expanding the UGB • Opportunities for effective economic development • Increased supply of housing units, to address increased demand from Hood River and Portland markets, to align with goal of affordable housing available to Cascade Locks residents
Oregon Department of Aviation (ODA)	<ul style="list-style-type: none"> • Maintain or enhance function as remote access/emergency service airport. • Maintain current role in system of Oregon airports.
Pilots	<ul style="list-style-type: none"> • Airport stays open and functioning, with potential improvements that increase aviation-related uses
Community Members: Status Quo	<ul style="list-style-type: none"> • Airport stays open for use as open space • Airport continues to function as an emergency helicopter landing site and staging area during wildfires or other natural disasters.
Community Members: Redevelopment	<ul style="list-style-type: none"> • Redevelop all or part of airport property to commercial or industrial use that increases economic development and tourism opportunities • Redevelop all or part of the airport property to include residential development • Designate area (on-site or off-site elsewhere in the City) for emergency helicopter landing site and staging area.

- **Evaluation Criteria.** ECONorthwest used stakeholder priorities (Exhibit 1) to create criteria for a qualitatively evaluation of each development option:
 - *Keeps airport open to aviation.* The airport stays open and the aviation functionality remains intact.
 - *Enhances aviation uses and safety.* The aviation use of the airport is enhanced or improved above its current use today.

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- *Keeps emergency access (helicopter).* Preserves a life-flight or other helicopter access location for both landing and emergency staging at the airport.²
 - *Adds land for development.* The development option converts airport land not currently available for development into developable land.
 - *Supports City/Port Goals for Economic Development.* The development option supports the City and Ports' goals for increased economic activity within the community.
 - *Ease of Implementation.* The criterion represents the development options ease by which it could be accomplished. Factors such as development cost and regulatory hurdles are considered.

Each criterion was evaluated on the following scale:

- *High.* (Symbol ●) The development option either already meets the criterion, or there would be few barriers to meeting the criterion.
- *Medium.* (Symbol ◐) The development option would likely meet the criterion, but there may be an increased number of regulatory or cost factors to implementation.
- *Low.* (Symbol ○) The development option would not meet the primary objective of the criterion.

3 Evaluation of Development Options

3.1 Introduction

The State of Oregon, through the Oregon Department of Aviation (ODA) owns the properties that, together, contain the Cascade Locks Airport and some associated lands. The state-owned parcels, about 47 total acres, are zoned either Public, Open Space, or Low-Density Residential. For this analysis, the consultant team considered six options for the state-owned parcels, identifying each parcel with a corresponding map label, and indicating its acreage, current zone, and redevelopment potential (Exhibit 2). The redevelopment potential of each parcel also depends on the proposed type of future development, which is discussed in more detail in each development option later in this section. Additional information about the existing conditions of the state-owned properties and the airport's context in the City of Cascade Locks is provided in the technical appendices.

² Two points are important in understanding the evaluation of this criterion. First, the City of Cascade Locks notes that there are several other locations within the community that could serve as a helicopter emergency landing site. Thus, elimination of a helipad at the airport site would not mean the elimination of emergency services via helicopter to Cascade Locks. Second, *any* of the options could be pursued with the requirement that a functional emergency helipad is accommodated at the properties no matter the land use change to the rest of the facility.

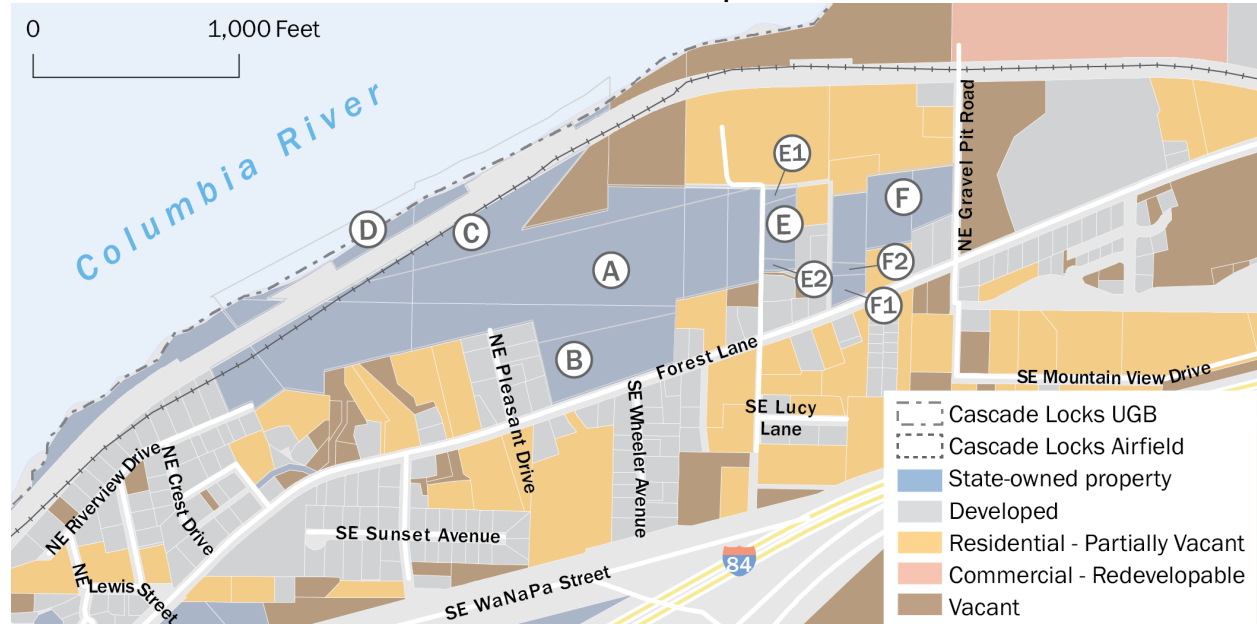
Exhibit 2. Description of Acreage and Uses on State-Owned Property at Cascade Locks Airport.

Map Label	Acreage (approx.)	Current Zone	Current Use
A	25.0	Public	Airport
B	4.0	Public	Airport property, ballfield (developable)
C	5.0	Public	Airport property (potentially developable)
D	7.2	Open Space	Airport property (on shoreline, not developable)
E	1.0	Low-Density Residential	Airport property, protection zone
E1	0.3	Low-Density Residential	Airport property, building restriction line
E2	0.1	Low-Density Residential	Airport property, building restriction line
F	4.0	Low-Density Residential	Airport property, protection zone
F1	0.5	Low-Density Residential	Airport property (potentially developable)
F2	0.3	Low-Density Residential	Airport property, building restriction line

Source: City of Cascade Locks

As part of the Economic Development Conditions Report (see Appendix), ECONorthwest completed a buildable land capacity analysis. The results indicated that some parcels immediately adjacent to the state-owned properties are vacant or partially vacant (Exhibit 3). These underutilized properties could present additional development opportunities for private property owners, however, because they are not publically owned they are not included in the development options analysis. Parcels labeled A-F, as indicated on the map in Exhibit 3 and referenced in Exhibit 2, are included in the development options analysis.

Exhibit 3. Characteristics of Land near Cascade Locks Airport



Source: ECONorthwest. GIS analysis of Hood River County GIS data, 2018
 Note: see text for characteristics of parcels labeled A through F2 in this exhibit.

3.2 Airport Development Options

3.2.1 A1. Status Quo

Description

This option preserves the current use at the Cascade Locks Airport and surrounding property. The Oregon Department of Aviation (ODA) would maintain ownership of the property, and existing aviation operations would continue. No additional changes to the property would take place.



Development needs

Besides ongoing property maintenance and periodic capital improvements, no other development needs are necessary.

Development outcomes

The properties would remain “as-is.”

Other considerations

N/A

Criteria	Impacts	Assessment
Keeps Airport Open to Aviation	No change to the airport property; existing aviation operations can continue.	●
Enhances Aviation Uses/Safety	No enhancements to the aviation uses or safety.	○
Preserves Emergency Access (Helicopter)	Preserves access for emergency helicopter landing on the airport property.	●
Adds Land for Development	No change to the airport property; no additional development would occur.	○
Supports City/Port Goals for Economic Development	The airport currently generates relatively little economic activity. This status quo option is not likely to increase the property's economic output.	○
Ease of Implementation	No further implementation action required.	●

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

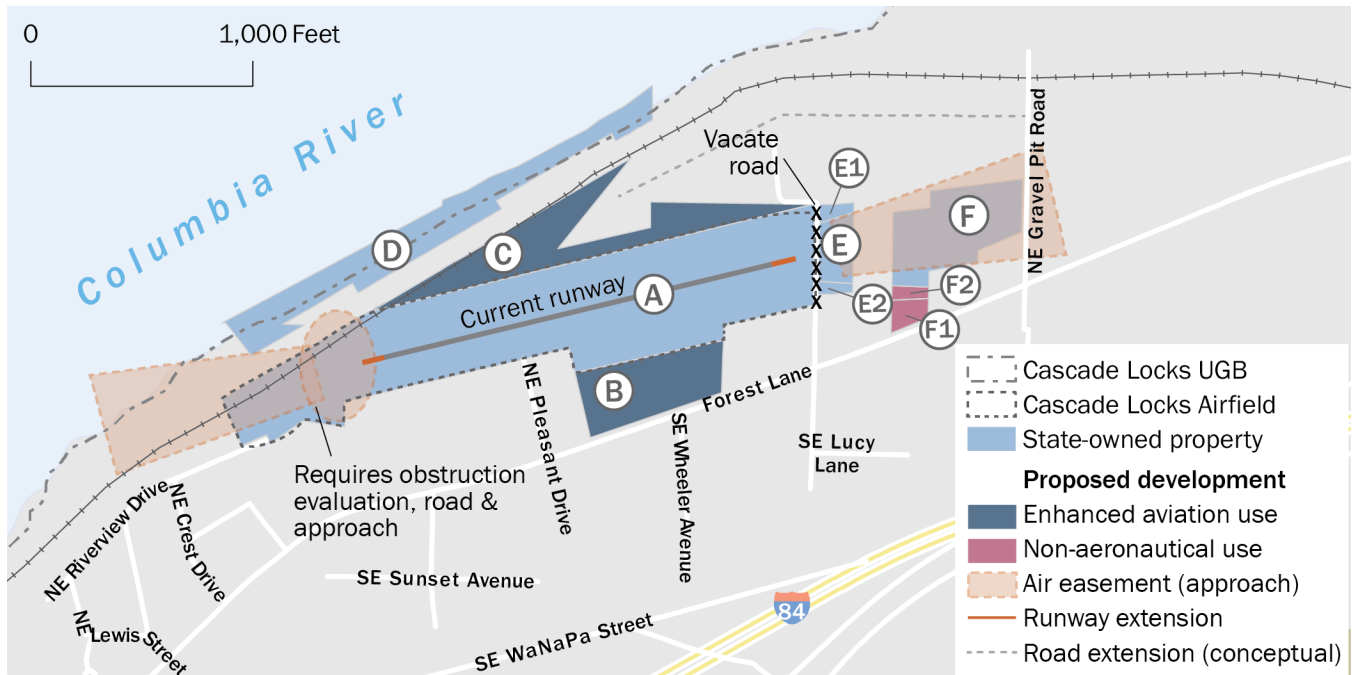
The status quo option meets three of the evaluation criteria at the high level: the airport remains open to aviation, the emergency helicopter landing is preserved, and the development option would be easy to implement.

However, under the status quo option, the property does not undergo additional development, meaning that there are no aviation or safety enhancements, no added developable land, and little opportunity to increase the property's economic output. Thus, the assessment for the status quo option to meet each of these criteria is low.

3.2.2 B1. Enhanced Aviation Uses

Description

This option preserves and enhances the current use of the airport property. Improvements to the runway would occur and there would be the opportunity for additional aviation-related development on the airport properties. These additional enhancements could include; aircraft hangars, a pilot's lounge, runway lighting, and/or a weather station.



Development Needs

Expansion of the current runway, both lengthening and widening. The likely maximum viable runway size that could fit on the property would be 2,000 x 60 ft. This runway expansion would require extension of 100 ft. to the east and 100 ft. to the west.

An expansion of the runway would require a vacating of Jackson Roberts Road. An alternative road, an extension of NE Gravel Pit Road, could connect existing properties located to the north of the airport. This extension could actually improve access to these parcels. Currently, Jackson Roberts Road is narrow and graveled. An extension to NE Gravel Pit Road could include a road improvement—paving and a redesign into a standard two-way road with a 50-foot-wide right of way.

Additional runway safety, object free areas for runway and expanded air easement zones would be required.

Hangars and/or a pilot's lounge would require infrastructure improvements to serve the facilities. Adding lighting to the runway would increase safety for aircraft operations.

Development Outcomes Enhanced safety of airport operations (takeoffs and landings).
Enhanced aviation facilities for airport users.
Potential development opportunities associated with the extension of NE Gravel Pit Road.

Other Considerations Due to its location away from the other airport properties and outside of aviation related easements, parcel F1 could become surplus land and, therefore, could support non-aviation focused development.

Funding considerations for improvements to the Cascade Locks airfield are provided in the Aviation Opportunities and Constraints Memorandum (see Appendix). One important funding consideration: the airport is not an FAA regulated facility, and, therefore, there is a limited opportunity to capture Federal dollars for airport improvements.

Criteria	Impacts	Assessment
Keeps Airport Open to Aviation	Enhances airport facilities within feasible limits.	●
Enhances Aviation Uses/Safety	Provides additional runway length and width to enhance safety of airport operations.	●
Preserves Emergency Access (Helicopter)	Preserves access for emergency helicopter landing on the airport.	●
Adds Land for Development	Provides space for aviation related development on the airport properties. The extension of NE Gravel Pit Road could improve access to private parcels of land located to the north of the airport.	○
Supports City/Port Goals for Economic Development	Runway improvements will make airport operations safer than they are today, potentially increasing the number of flyers using the facility. However, at a maximum runway length of 2,000 feet and given the cross winds and approach challenges, the technical	○

ability required to use the airport will still limit more widespread use.

It is unclear if there is sufficient demand for other airport enhancements, such as leasable hangars or a pilot's lounge to significantly increase the airport's use or create a sizeable increase in local economic activity.

The extension of NE Gravel Pit Road could incentivize property development to the north of the airport properties.

Ease of Implementation

Runway enhancements requiring lengthening and widening of the runway facility, road vacation and additional easements could be costly. Partial implementation of this enhanced option within current property boundaries—especially a widening of the runway—would pose few physical or regulatory challenges. ◐/○

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

The enhanced aviation uses option keeps the existing airport open, provides additional aviation and safety enhancements, and preserves the emergency helicopter landing. The assessment for this option to meet these criteria is high.

This development option does have the potential to provide space for aviation related development on the airport properties and the extension of NE Gravel Pit Road could provide better access to airport land to the north. However, the overall assessment for this option to add developable land is low.

Lengthening the runway to a maximum of 2,000 feet under this development option could potentially increase the number of flyers using the facility. However, due to cross winds and approach challenges, the assessment for this option to increase the economic output of the property through increased usage is low.

This option would also be costly to implement, since it would require lengthening and widening of the runway facility, as well as the addition of other facilities. However, a partial implementation of this development option could be achieved at a lesser cost.

Additional considerations for enhancing the runway and the potential location of an Automated Weather Observation System (AWOS) are provided in the maps in the next section.

3.2.3 B1.1 Enhanced Aviation Uses with Runway Shift

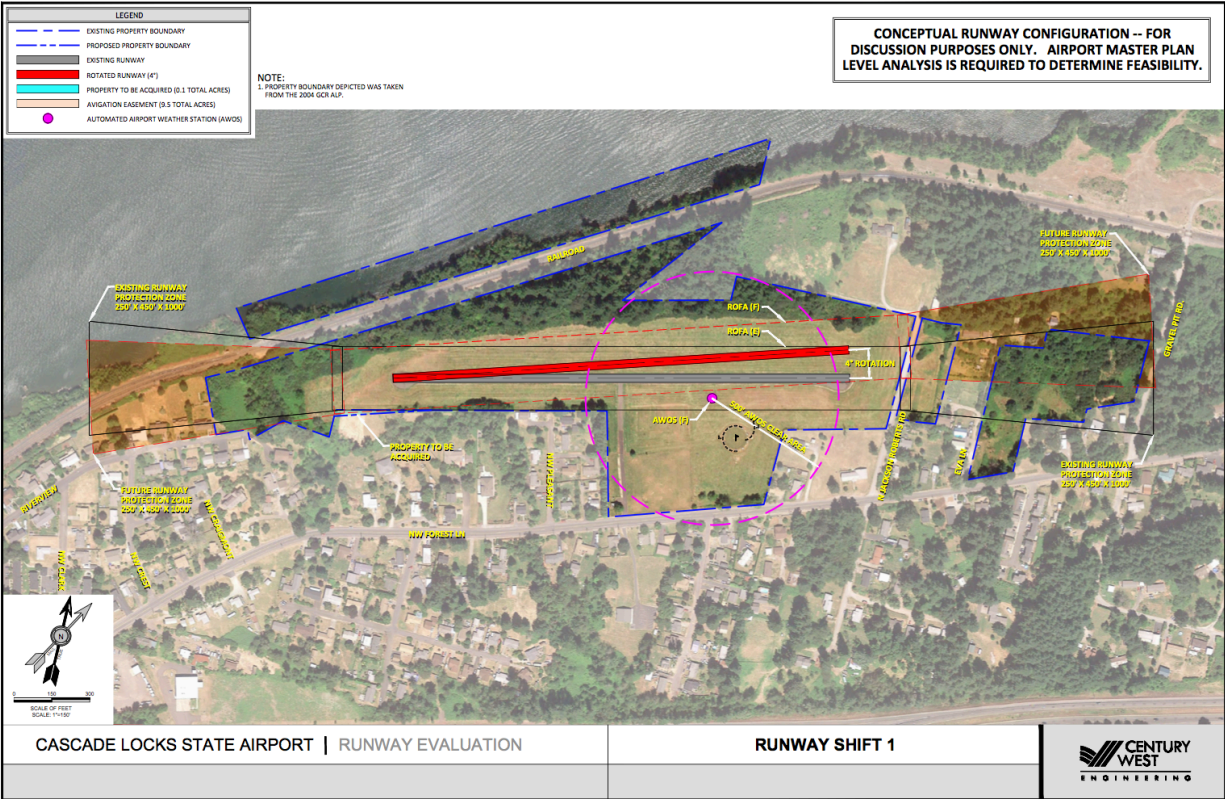
During the third PSC meeting (May 2018), PSC members requested to see a high-level analysis of a runway reorientation to create more developable land on the southern portion of the airport property. Century West Engineering conducted two studies that explore the potential for a shifted runway. These options are presented and discussed in this subsection.

Description

Runway Shift 1 (Shift east end of runway four degrees to the north): In this option, the eastern end of the runway is shifted northwards a few degrees. The western end of the runway remains at its existing location. This option keeps runway clearance areas on current state-owned property. Restricted runway easements would shift slightly, some, especially to the west, would affect several existing and developed parcels. Some key considerations for this sub-option include:

- Keeps most of the runway footprint on existing airport land (requires vacating Jackson-Roberts Road or realigning outside of runway safety area)
- Requires complete runway reconstruction and removal of existing pavement
- Wind study required to confirm prevailing wind direction
- Opens up some additional land for development
- Runway Protection Zone (RPZ) impacts need to be evaluated (small increase in residential activity in west RPZ)
- Avigation easements (height & hazard) recommended for portions of RPZs located off airport property
- Weather station (AWOS) siting may be limited by existing obstructions (trees, built items) in the 500-foot clear area

This option is likely to be regulatorily feasible. However, the benefit of a few hundred square feet more of developable land to the south is likely disproportionate to the costly undertaking of shifting the runway. Altogether this sub-option ranks similarly to the B1 parent option. Of note, “Ease of Implementation” would be low (○).



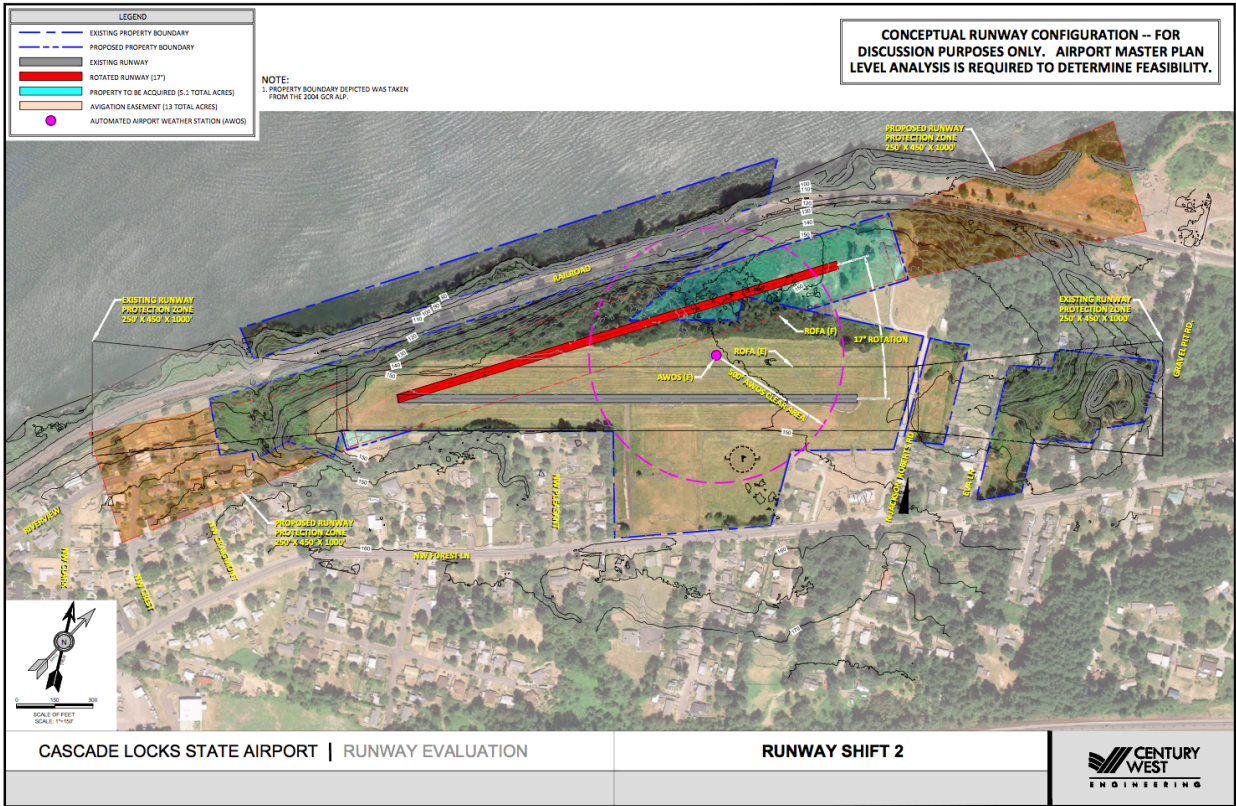
Description

Runway Shift 2 (shift east end of runway 17 degrees to the north): In this option, the runway is shifted more dramatically to the north. Like the first option, the runway pivots on its current western terminus, with the eastern end of the runway rotating north. This option would require private property acquisitions and major changes to runway clearance areas, buffer zones, and easements. Some key considerations for this sub-option include:

- Requires complete runway reconstruction and removal of existing pavement
- Requires additional taxiway construction for runway access
- Wind study required to confirm prevailing wind direction
- Requires significant tree clearing and site grading
- Requires property acquisition of 10 acres (+/-) including existing residential properties
- Runway Protection Zone impacts need to be evaluated (significant increase in residential activity in west RPZ)
- Avigation easements (height & hazard) recommended for portions of RPZs located off airport property
- Opens up additional land for development; opportunity to relocate aircraft parking and other potential aeronautical uses north (adjacent to runway)
- Weather station (AWOS) siting requires clearing existing obstructions (trees, built items) in the 500-foot clear area (majority contained on property shown “to be acquired”)

Further study would be necessary to establish if this option is possible from an engineering standpoint.

If undertaken, this option would open up a considerable amount of developable land on the southern portion of the airport property. However, this option would face major regulatory and cost challenges. This sub-option scores similarly to the B1 parent option, with the exception that “Adds land for development” would rank at a medium level (●), and “Ease of implementation” would rank low (○).



3.2.4 C1. Airport Stays, Additional Residential Development

Description

This option keeps the current use of the airport and adds additional residential development on adjacent land. The recent increase in residential permits in the City of Cascade Locks shows a demand for housing. Residential development on land near the airport would help to increase the supply of dwelling units in the City of Cascade Locks where the Urban Growth Boundary is constrained by the National Scenic Area. An extension of NE Gravel Pit Road to the west could incentivize residential development on airport Parcel C, as well as adjacent private properties.



Development Needs

Typical residential infrastructure improvements (water, sanitary sewer, stormwater, electrical power)

Transfer of property ownership and reconfiguration to accommodate new residential development

New road construction may be warranted to “unlock” some parcels for residential development. An extension and improvement of NE Gravel Pit Road to the west may incentivize residential development on airport Parcel C, as well as adjacent private properties.

Parcel B currently contains a ballfield. Any future development on this parcel would need to consider the removal or modification of the ballfield.

Most of the airport properties currently have a “Public” zoning code (Exhibit 3); one that prohibits residential development. Rezoning is likely to be required for areas to be redeveloped into residential land.

Development Outcomes

Adds approximately eight (8) net acres³ of new residential development from current publicly owned airport land. Additional private land may also become desirable to develop into residential land.

For the eight net acres of current airport land, possible housing densities could be the following:

- Low Density Residential: 2-5 homes/acre (16-40 homes)
- Medium Density Residential: 6-10 homes/acre (48-80 homes)

Other Considerations

There are several privately owned parcels of land adjacent to the airport that are currently vacant or partially vacant and are zoned low density residential. These properties would likely benefit from residential infrastructure development of the airport properties and therefore either in combination or through a phased approach, could provide additional land for residential development.

Residential development is not completely incompatible with an adjacent airport use but is generally not advisable. To protect the airport use, aviation easements⁴ could be considered for any additional adjacent residential development. There is likely limited demand for an “airpark”; residential communities that feature private home-accessible airplane hangars.

Criteria	Impacts	Assessment
Keeps Airport Open to Aviation	This option would limit residential development to the fringe areas of the airport and only development that does not affect the aviation functionality of the airport	●

³ Net acreage calculation assumes about 25 percent of 10 available gross acres for ROW development and other necessary services.

⁴ Aviation easements protect the use of an airport. Property owners with an aviation easement agree to accept living near the airfield and the reasonable activities (e.g., noise effects) that occur at an airfield.

	would be allowed. Existing aviation operations would continue with limited changes from today's use.	
Enhances Aviation Uses/Safety	No enhancements to the aviation uses or safety.	○
Preserves Emergency Access (Helicopter)	Preserves access for emergency helicopter landing on the airport property.	●
Adds Land for Development	This option adds approximately 8 net acres of residential development on the airport property itself. Private land adjacent to the airport may also become desirable for development. Some current parcels at the airport are oddly shaped or may be too topographically challenging to develop, therefore limiting total development capacity.	◐
Supports City/Port Goals for Economic Development	The eight net acres of additional residential land in this option could provide enough space for between 16 to 80 new homes. New homes would provide tax revenue and residences for area workers.	◐
Ease of Implementation	This option would require a rezoning of some airport properties, along with infrastructure development to meet the scale of the future housing development. An extension and improvement to NE Gravel Pit Road could be costly. Legal considerations include adding an aviation easement to the residential property to protect airport use. Development at Parcel B should be done in coordination with the community to understand the importance of use of the existing ballfield.	◐

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

This option preserves the existing aviation facility and keeps the emergency helicopter landing open, but does not add aviation or safety enhancements to the facility. It has the potential to add eight net acres of residential land on the fringes of the airport facility; a relatively small increase in developable land.

The residential land added would have space for 16 to 80 new homes, which would provide tax revenue for the city and housing for area workers. For this reason, this option has medium-level potential to increase the economic output of the property and support the City/Port's goals for economic development.

The assessment for the ease of implementation criteria is medium. Some rezoning of airport properties would be necessary in order to allow residential development. Upgrades to infrastructure on the property would also be needed to support future housing development, which would include a potentially costly extension and improvement of NE Gravel Pit Road. Avigation easements would preserve the airport use, requiring owners of residential land to agree to the effects of airport uses near their property.

3.2.5 C2. Airport Stays, Additional Compatible Commercial or Industrial Use

Description

This option keeps the current use of the airport and adds additional commercial or industrial development on select airport properties. There are a variety of uses allowed in commercial or industrial zones in Cascade Locks, though aviation-related commercial development may align well given the adjacency to the airport. At the current time, there are several vacant industrial and commercial properties scattered across the city. With the exception of Parcel B, it is unlikely that other airport parcels would be attractive for industrial or commercial development in the near to mid-term.



Development Needs

Commercial or industrial infrastructure improvements would be required. These could include: potable water, sanitary sewer, stormwater improvements, heavy power, upgraded roadways and intersections.

Transfer of property ownership and reconfiguration to accommodate new commercial or industrial development.

Most of the airport properties currently have a “Public” zoning code (Exhibit 3); one that prohibits commercial or industrial development. Rezoning is likely to be required for areas to be redeveloped into commercial or industrial land.

The ballfield at Parcel B is currently used for recreational purposes. Any development on this parcel should be coordinated with community needs.

Development Outcomes

In total, approximately 10 gross acres of airport land could be redeveloped without substantially altering the current aviation use. However, due to the necessary scale of most commercial and industrial developments, not all of these parcels may be suitable for industrial or commercial development. For example, parcels F1 and F2 are less than an acre in size and would not accommodate most types of industrial development. The shape of parcel C would also make commercial or industrial development difficult to implement without aggregating the land with adjacent parcels. The location best suited for commercial or industrial development on the airport property is on Parcel B. Its size (three net acres⁵) and rectangular shape would lend itself to a variety of industrial or commercial development types. With typical building to land ratios, this parcel could accommodate an 85,000 to 115,000 square foot industrial or commercial building.

Other Considerations

In the near term, there are other more attractive industrial and commercial vacant sites in the city of Cascade Locks that would out compete Parcel B for development.

There may be industrial or commercial users that desire airport adjacency. However, the small size of the runway will limit airport related economic activity.

Criteria	Impacts	Assessment
Keeps Airport Open to Aviation	This option would limit commercial or industrial development to the fringe areas of the airport and only development that is compatible with the aviation functionality of the airport would be allowed. Existing aviation operations would continue with limited changes from today’s use.	●
Enhances Aviation Uses/Safety	No enhancements to the aviation uses or safety.	○

⁵ Net acreage calculation assumes about 30 percent of 4 gross acres for ROW development and necessary services.

Preserves Emergency Access (Helicopter)	Preserves access for emergency helicopter landing on the airport property.	●
Adds Land for Development	This option adds approximately three (3) net acres (Parcel B) of commercial and/or industrial development.	◐
Supports City/Port Goals for Economic Development	This option would increase the opportunities for economic development in Cascade Locks. Industrial or commercial development of Parcel B would increase local employment and create taxable property. Given the current amount of vacant commercial and industrial land within the community, it is unlikely that this property would be developed in the near term.	◐
Ease of Implementation	This option would require rezoning of Parcel B, along with infrastructure development to accommodate future commercial and industrial uses. Rezoning Parcel B to a commercial or industrial use could be challenging, given the surrounding residential uses. Potential development at the other available adjacent parcels (C, F1, F2) would be more difficult to implement due to parcel sizes and configurations. Since Parcel B is currently used as a ballfield for community recreational use, any development would need to occur in coordination with community needs.	○

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

This development option preserves the existing aviation facility and keeps the emergency helicopter landing open, but does not add aviation or safety enhancements to the facility.

This option would likely add only three net acres of developable commercial or industrial land; a medium assessment is warranted due to this relatively low amount of added land.

Developed, the three acres would provide space for new businesses and employment, and also provide property tax revenue. Given the small size of the the land that could be easily developed, and the fact that there are other vacant commercial or industrial properties in the community that would outcompete this property, the economic development assessment is medium.

The assessment for the ease of implementation criteria is medium. Some rezoning of airport properties would be necessary in order to allow commercial development, a task that may be a regulatory challenge on the grounds that changing the land use zone for one parcel of property is usually prohibited. Further, the surrounding low density residential uses and current community use of the ballfield may pose compatibility issues. Costly upgrades to infrastructure on the property would also be needed to support future commercial or industrial development.

3.2.6 D1. Airport is Removed, Residential Development Occurs

Description

This option removes the airport use from the property and residential development occurs on the site. This would provide additional housing supply in the City of Cascade Locks, with a potential for increased density development. Recent housing construction trends in Cascade Locks indicate increased demand for homes within the community. If these trends continue at a similar pace through the mid to long-term, the community will need to identify new areas for residential development within the current confines of its Urban Growth Boundary.



Development Needs

Removal of the runway and current airport infrastructure.

Typical residential infrastructure improvements such as water, sewer, stormwater, electric power, and transportation infrastructure.

Transfer of property ownership and reconfiguration to accommodate new residential development.

Most of the airport properties currently have a “Public” zoning code (Exhibit 3); one that prohibits residential development. Rezoning is likely to be required for areas to be redeveloped into residential land. Though Parcel D is undevelopable, ODA would not maintain ownership; its zoning can remain as Open Space.

Development Outcomes Adds approximately 30 net acres⁶ of new residential development. Additional adjacent private land may also become desirable to develop into residential properties.

For the 30 net acres of current airport land, possible housing densities could be the following:

- Low Density Residential: 2-5 homes/acre (60-150 homes)
- Medium Density Residential: 6-10 homes/acre (180-300 homes)

Other Considerations There are several privately-owned parcels of land adjacent to the airport that are currently vacant or partially vacant and are zoned low density residential. These properties would likely benefit from residential infrastructure development of the airport properties and, therefore, either in combination or through a phased approach, could provide additional land for residential development.

⁶ Net acreage calculation assumes about 25 percent of 40 available gross acres for ROW development and necessary services.

Criteria	Impacts	Assessment
Keeps Airport Open to Aviation	Does not keep airport open	○
Enhances Aviation Uses/Safety	Does not enhance aviation use	○
Preserves Emergency Access (Helicopter)	An emergency helicopter landing location would either need to be set aside on the airport properties in this option or another location within the community would need to be identified. At this time, there are several options for alternative landing locations within the community of Cascade Locks.	◐
Adds Land for Development	This option adds approximately 30 net acres of residential land for development.	●
Supports City/Port Goals for Economic Development	The 30 net acres of additional residential land in this option could provide enough space for between 60 to 300 new homes. New homes would provide tax revenue and residences for area workers.	●
Ease of Implementation	This option would require rezoning of the airport properties, along with infrastructure development to meet the scale of the future housing development.	◐

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

This development option would remove the current runway and other aviation related improvements; therefore this option ranks low, for both keeping the runway open, and enhancing the aviation use.

An emergency helipad could potentially be maintained at the property, or another location could be identified within the Cascade Locks community.

This option creates the largest opportunity for new residential development, potentially adding space for 60 to 200 homes. For this reason, the assessment for adding land for development is high. Likewise, this option would achieve the City and Port’s economic development goals through the creation of new areas for homes, which would generate tax revenue and provide new residences for local workers.

The assessment for the ease of implementation criteria is medium. Rezoning of the airport property would be necessary, along with residential supportive infrastructure. However,

private residential development may support all, or most of the required infrastructure, easing and enabling future residential development.

3.2.7 D2. Airport is Removed, Commercial or Industrial Development Occurs

Description

This option removes airport use from the property and commercial or industrial development would occur on the site. Based on the needs of existing industries and identified economic development targets, several types of businesses could locate at the airport properties. At the current time, there are several vacant industrial and commercial sites within the community that are likely to be more desirable and closer to development readiness compared to the airport property. In the longer term, the airport property may be a suitable location for a variety of businesses.



Development Needs

Removal of the runway and current airport infrastructure.

Commercial or industrial infrastructure improvements would be required. These could include: potable water, sanitary sewer, stormwater improvements, heavy power, upgraded roadways and intersections.

Transfer of property ownership and reconfiguration to accommodate new commercial or industrial development. Though Parcel D is undevelopable, ODA would not maintain ownership; its zoning can remain as Open Space.

Most of the airport properties currently have a “Public” zoning code (Exhibit 3 Exhibit 3. Characteristics of Land near Cascade Locks Airport); one that prohibits commercial or industrial development. Rezoning is

likely to be required for areas to be redeveloped into commercial or industrial land.

Development Outcomes

Adds approximately 28 net acres⁷ of new commercial or industrial development. The level grade of the site, easy access, proximity to an Interstate 84 interchange, and large contiguous nature of the site would be attractive to a variety of industrial or commercial users.

The 28 net acres that would be available for development could accommodate a variety of commercial or industrial users in several configurations. For example, a multitenant business park or a distribution center could easily fit on the properties.

Other Considerations

At the time of this analysis, Cascade Locks has approximately 116+/- acres of vacant industrial land, much of which is better suited for near-term development than the airport properties. Commercial and industrial development is occurring within the community, but not at a rate that is likely to consume available lands in the near or mid-term.

While not a commercial or industrial use, a school or educational institution may be another potential user of the airport site. However, at this time, there is little indication that there is demand for additional land for an education use.

Criteria	Impacts	Overall Assessment
Keeps Airport Open to Aviation	Does not keep airport open	○
Enhances Aviation Uses/Safety	Does not enhance aviation use	○
Preserves Emergency Access (Helicopter)	An emergency helicopter landing location would either need to be set aside on the airport properties in this option or another location within the community would need to be identified. At this time, there are several options for alternative landing locations within the community of Cascade Locks.	◐

⁷ Net acreage calculation assumes about 30 percent of 40 gross acres for ROW development and necessary services.

Adds Land for Development	This option adds approximately 28 net acres of commercial or industrial land for development.	●
Supports City/Port Goals for Economic Development	Increases opportunities for economic development in Cascade Locks. The additional commercial and industrial land provides opportunities for businesses to locate in Cascade Locks, adding to the tax base of the City and increasing employment opportunities.	●
Ease of Implementation	This option would require rezoning of the airport properties, along with substantial infrastructure development to meet the scale of the future commercial or industrial uses.	○

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

This development option would remove the current runway and other aviation related improvements. Therefore, this option ranks low for both keeping the runway open and enhancing the aviation use.

An emergency helipad could potentially be maintained at the property, or another location could be identified within the Cascade Locks community, warranting a medium assessment.

This option creates the largest opportunity for new commercial or industrial development at the airport properties. Over two dozen net new acres of new commercial or industrial land could be created. The properties' attributes—large contiguous parcels, flat and easily accessed land—could make it attractive for any number of commercial or industrial users. The assessment for the addition of land and potential for economic development therefore is high.

The assessment for the ease of implementation criteria is low. Developing commercial and industrial land requires costly infrastructure—new roads, high voltage power, stormwater improvements—that are more burdensome than those required for residential development. Together, with removal of the airport facilities and a rezoning of the properties, the assessment for the ease of implementation is low.

3.3 Summary of Development Options

No one option has a “high” level of achievement for all criteria. Rankings fall as one might expect. For example, the “Enhanced Aviation Option” rates high on aviation criteria, but low on adding more land for development or alignment of economic development goals with the City and Port. The development options that propose a full redevelopment of the airport flip the rankings: low for aviation, high for development.

The rankings illustrate a truism regarding all projects of this complexity and scale: there will be tradeoffs with any decision that is made. Even the most balanced approach—development options that consider partial property development and leave the runway intact—will not fully achieve each of the criteria. The task of weighting the criteria based on their relative importance to elected decision-makers and the people they represent is not one undertaken in this project.

Exhibit 4. Summary of Performance of Development Options on Evaluation Criteria

Evaluation Criteria	Development Options					
	A1. Status Quo	B1. Enhanced Aviation Uses	C1. Airport + Residential Development	C2. Airport + Industrial Development	D1. Residential Development	D2. Ind./Comm. Development
Keeps Airport Open to Aviation	●	●	●	●	○	○
Enhances Aviation Uses/Safety	○	●	○	○	○	○
Emergency Access (Helicopter)	●	●	●	●	◐	◐
Additional Land for Development	○	○	◐	◐	●	●
Alignment with City/Port Goals for Economic Development	○	○	◐	◐	●	●
Ease of Implementation	●	◐/○	◐	○	◐	○

Source: ECONorthwest

Key: ● High ◐ Medium ○ Low

4 Concluding Observations

The consultant team had two main tasks in this project: (1) facilitate discussion by the PSC and participation by stakeholders, and (2) provide objective information about issues related to past, current, and potential future conditions at the airport site. Section 3 above shows the facts about the development options that the PSC approved as reasonable.

The project's scope of work did not include having the consultant team make recommendations about the future use of the airport property. The consultant team does, however, have many years of experience with similar projects in Oregon and across the western United States. It has worked with other communities on similar issues to achieve positive outcomes. Following are some observations, based on that experience, on this project's process and issues, and potential next steps that the City and Port might take toward a decision on a development option to pursue.

4.1 Observations about the Process and the Issues

- The project's approach was inclusive and responsive. The project shifted in response to comments raised by and to the PSC: from an initial goal of gaining consensus on a desired property development option, to an achievable goal of getting consensus about issues, preferences, development options, and their pros and cons. The process uncovered the importance of the airport properties to many stakeholders, a fact which may not have been apparent at the project's onset. Additionally, the PSC was an effective forum for stakeholders with divergent points of view to discuss a sensitive topic openly, honestly, and respectfully. PSC members had different interests that led them to favor unambiguously some development options over others. Nonetheless, members conducted meetings democratically and civilly. Those PSC members that participated most frequently took ownership of the project and represented their constituency's interests with vigor.
- Cascade Locks faces two critical and related issues about its long-run growth and quality of life. First, the community has strong pressure for residential development pressure as housing markets to both the east (Hood River) and to the west (the Portland metropolitan area) are becoming increasingly unaffordable for many households. Vacant and easily developed residential land within Cascade Locks is being developed at an increasing rate. The City's Urban Growth Boundary is unlikely to ever expand: the surrounding National Scenic Area and the community's natural geographic setting make the current UGB the maximum extent of the City's land for the foreseeable future. If residential development continues at its current rate, the community will eventually struggle to find areas for new homes and for keeping existing homes affordable.

Second, the community has struggled to create new jobs. Many acres of industrial and commercial land are currently vacant, and although there have been announcements about new leases or new companies moving in periodically, the local unemployment rate is still much higher than regional levels.

Partially developing (or even fully redeveloping) the airport will not, by itself, resolve these two community-wide issues. Decisions about uses at the airport should be part of a broader examination of these issues and potential actions to address them. Such a process would better prepare the community to identify actions that strategically promote housing affordability, economic development, and community livability.

- The technical analyses and discussions with stakeholders during the project found that the airport is used infrequently (relative to other airports in Oregon), and future options for development that maintain the aviation functionality are unlikely to offer large gains in economic development or sizeable amounts of space for other types of development. But the project also found that the airport is a link in the regional airport system and those pilots that use the runway value it highly. To quote one PSC member, “Once it’s gone, it’s gone.” It may be an underutilized asset today, but airports are difficult, and in some places impossible, to build new.

The tradeoffs are clear in concept, but they are hard to quantify. Difficult to quantify is the value as an emergency airstrip. Like many safety investments, the airport is there for a time when it *might* be needed; that an airport has not been used for an emergency landing does not mean that it won’t be needed for an emergency landing in the future. But society makes decisions about “how much safety do we want to pay for” all the time, either explicitly or implicitly. There is always more that could be done to make things safer, but expenditures on safety have opportunity costs: what are we giving up to get that extra safety?

Change, and especially changes in land use, can be difficult. People make location and lifestyle investments based on the implicit assumption that what they see around them now is about what they will see in the future. But the economy, technology, and preferences change, and growth happens. Different land-use patterns may better meet multiple community objectives.

Change in use of public land is often particularly difficult because groups of users of the land have made investments in the land’s original uses. There are, for example, fairgrounds throughout the Northwest that were once a focus of social life in agricultural communities are now largely vacant parcels with outdated and undermaintained buildings, surrounded by urban development, used by a small group of people passionate about certain historical uses, and paid for by everyone with tax dollars. In some cases, communities have decided to make a major investment to improve facilities and diversify uses. In some cases, the fairgrounds have been repurposed. But those latter cases are rare, even when there is a strong case for broader community benefits from alternative uses. Once a use is in place, it has an inertia that is hard to overcome.

Preserving an airport in Cascade Locks is clearly a priority for some stakeholders at this time. It may be that a majority of residents would now favor keeping, improving, and even expanding the airport. But this study was not scoped to do the kind of public outreach and stakeholder engagement to confirm that hypothesis. Even if it had,

opinions now can change over time. Before a decision about investing in one of the development options gets made, Cascade Locks needs more information about: (1) its overall development options and needs, and citizen preferences for those options, and; (2) the State's priorities with its aviation property assets. Thoroughly investigating these two issues would better enable decision-makers to see, at the broadest level, the tradeoffs that would result from any decisions about future uses at the airport property.

4.2 Observations on Next Steps

The consultant team suggests the City and the Port (the main local governments with local elected officials and decision-making authority) take the following next steps:

- Keep the PLT. Because of the scale and significance of the airport property in Cascade Locks, a local group should continue to monitor activity at the airport and identify future opportunities for the property as they arise. The Project Leadership Team (PLT) represents the parties that will ultimately be able to make decisions about the airport, and, therefore, is well-suited to be such a group. The group's final form, meeting schedule, and reporting process could be organized in several different ways. We suggest quarterly or biannual meetings, with regular check-ins with the City, Port of Cascade Locks, and the State of Oregon.

One of the first tasks of this group could be to work with the State to identify modest airport improvements and establish a simple system for monitoring airport usage. Although not a formal conclusion by the PSC, many PSC members—the City and the Port included—opined that if the airport is going to stay, it should be better supported by the State. A widening of the current runway and an AWOS weather system were two airport improvements that were most popular with the group.⁸ Coupled with a monitoring system, these improvements would increase safety of the airport, and help all the parties accurately understand the airports real usage levels.

- Conduct a community-wide assessment of land-use opportunities and constraints. The Cascade Locks airport project focused on the airport properties. Although these properties constitute a large area of potentially developable land, the issues facing the community are unlikely to be fully solved through actions on these properties alone. Now is a good time for local leadership to do an integrated accounting of community-wide issues, prioritize goals, and identify near-term actions. This process would entail a synthesis of recent studies, outreach to the local community, identification of potential actions, and a prioritization of those actions. The primary goals of this process would be to: (1) galvanize support for tackling community-wide issues, and (2) identify and prioritize viable near-term actions.

⁸ Consistent with a theme of this study, those investments have costs and tradeoffs that would have to be evaluated for cost-effectiveness in the context of broader state-wide objectives for its airport system and impacts on potential future development at and around the airport.

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- The State of Oregon has a major role to play in each of the above two items. The State should support and participate in the community-wide opportunities and constraints analysis, and be an active participant in the ongoing airport task force. But additionally, this study has shown that there is a lack of clarity about the State's priorities for at least some of its aviation property assets. A comprehensive study of the State's airport system showing the condition and priorities for each facility, planned improvements, and how they function in a network would help the state and local officials identify aviation property assets to improve and those that may serve a better purpose locally as another use.

5 Appendices

This report is supported by technical memoranda done by the consultant team, and by the discussion and advice of the Project Steering Committee. Seven documents, also available from the Port of Cascade Locks, provide additional project details and insight:

1. Cascade Locks Economic Development Conditions Report
2. Cascade Locks Aviation Opportunities and Constraints Memorandum
3. Summary of Technical Memoranda
4. PSC Meeting One – Minutes
5. PSC Meeting Two – Minutes
6. PSC Meeting Three - Minutes
7. Town Hall Meeting Summary