COMMISSIONERS RECORD 52
FRANKLIN COUNTY
Commissioners' Proceedings for August 21, 2013

This document is a summarized version of the Board of Commissioners proceedings. The minutes are paraphrased, not verbatim. Access to an electronic audio recording of the meeting is available upon request.

The Honorable Board of Franklin County Commissioners met on the above date. Present for the meeting were Rick Miller, Chairman; Robert E. Koch, Chair Pro Tem; and Brad Peck, Member; and Mary Withers, Clerk to the Board. County Administrator Fred Bowen was absent on personal leave. Mr. Peck joined the meeting at 8:42 am.

Meeting convened at 8:36 am with the Pledge of Allegiance. Present in audience: Tri-City Herald Reporter Geoff Folsom.

VOUCHERS

Motion – Mr. Koch moved for approval of vouchers in the bottom line of $2,341,190.13 signed by Mr. Beaton and Julie Jordan. Mr. Bowen was not available to review. Second by Mr. Miller. 2:0 vote in favor.

Fund Expenditures	**Warrants**		**Amount Issued**
County Roads	86067	-	$ 28,000.00
Current Expense	86068	86112	$ 64,014.93
Current Expense	86113	86146	$ 14,659.50
Current Expense	86147	86189	$ 63,084.38
Election Equipment Revolving	86190	-	$ 122.28
Boating Safety Fund	86191	86197	$ 3,541.78
Jail Commissary	86198	86200	$ 1,572.76
Enhanced 911	86201	86205	$ 14,469.53
Ending Homelessness Fund	86206	-	$ 2,108.00
.3% Criminal Justice Const Fund	86207	86209	$1,873,723.92
County Roads	86210	86227	$ 202,833.04
Solid Waste	86228	86229	$ 413.01
Motor Vehicle/Public Works	86230	86247	$ 43,354.25
FC Public Facilities Const Fund	86248	-	$ 354.18
TRAC Operations Fund	86249	86275	$ 24,273.11
Franklin County RV Facility	86276	86279	$ 3,737.41
Current Expense	Excise Tax		$ 537.97
Enhanced 911	Excise Tax		$ 86.00
TRAC Operations Fund	Excise Tax		$ 123.06
Franklin County RV Facility	Excise Tax		$ 1.03
Motor Vehicle/Public Works	Excise Tax		$ 351.99
	Grand Total:		**$ 2,341,190.13**

(Exhibit 1)

COMMISSIONERS RECORD 52
FRANKLIN COUNTY
Commissioners' Proceedings for August 21, 2013

OFFICE BUSINESS

Consent Agenda

Motion – Mr. Koch: Mr. Chairman, I move for approval of consent agenda containing two items. Second by Mr. Miller. 3:0 vote in favor.

1. Approval of Resolution 2013-297, First Amendment to Master Services Agreement between Benton and Franklin Counties Juvenile Justice Center and Securus Technologies, Inc. f/k/a Evercom Systems, Inc.

2. Approval of Resolution 2013-298, Contract between Franklin County and Construction Ahead, Inc., CRP 601 – Franklin County Road Safety Program Phase I

PROSECUTOR

Chief Civil Deputy Prosecuting Attorney Ryan Verhulp met with the Board. Present in audience: Geoff Folsom.

Executive Session at 8:43 am expected to last up to 15 minutes for legal risks of a proposed action pursuant to RCW 42.30.110(1)(i) regarding the Israel Garcia inmate medical bill.

Open Session at 8:59 am.

PROSECUTOR

Prosecutor Shawn Sant, Deputy Prosecutor Ryan Verhulp and Deputy Prosecutor Janet Taylor met with the Board. Present in audience: Geoff Folsom, Greg Wendt, Jerrod MacPherson, Jim Toomey, Jim Klindworth, Randy Hayden, Spencer Montgomery, Ron Foraker and Chuck Larson.

Executive Session at 8:59 am pursuant to RCW 42.30.110(1)(g) to review the performance of a public employee or employees expected to last 15 minutes. Those in the audience and Mrs. Withers left the meeting.

Open Session at 9:16 am.

PLANNING AND BUILDING DEPARTMENT (9:16 am)

Planning and Building Director Jerrod MacPherson met with the Board.

Public Meeting TC-2013-02: A public meeting to review the Planning Commission's recommendation for an application by the Port of Pasco. The Port has proposed a text amendment to the Franklin County Development Regulations (Zoning), Ordinance 7-2005.

COMMISSIONERS RECORD 52
FRANKLIN COUNTY
Commissioners' Proceedings for August 21, 2013

Public Meeting convened at 9:16 am. Present: Commissioners Koch, Miller and Peck; Planning Director Jerrod MacPherson; Assistant Director Greg Wendt; and Clerk to the Board Mary Withers. Present in audience: Port of Pasco Director Jim Toomey, Port of Pasco Board member Jim Klindworth, Port of Pasco Operations Manager Randy Hayden, J-U-B Engineers consultants Spencer Montgomery and Chuck Larson, Pasco Airport Director Ron Foraker, Geoff Folsom, Ryan Verhulp, Bill Davis and Shawn Sant.

Mr. Wendt and Mr. MacPherson reviewed the information on the Action Summary (Exhibit 2).

Randy Hayden, Ron Foraker and Spencer Montgomery each gave parts of a slide presentation regarding the proposed ordinance. Chuck Larson answered questions.

Mr. Miller asked if anyone else would like to speak in favor of the ordinance. There was no response.

Mr. Miller asked if anyone would like to speak in opposition to the ordinance. There was no response.

Mr. Hayden answered Mr. Peck's questions about private property activities including field burning activities that may affect the airport.

Motion – Mr. Koch: Mr. Chairman, I move to grant approval of Text Change Application TC 2013-02 subject to the five findings of fact. Second by Mr. Peck. 3:0 vote in favor. Ordinance 6-2013 was approved. (Exhibit 3)

PROSECUTOR (9:52 am)

Special Prosecuting Attorney William (Bill) Davis, Prosecutor Shawn Sant and Chief Civil Deputy Prosecuting Attorney Ryan Verhulp met with the Board. Present in audience: Geoff Folsom.

Executive Session at 9:52 am for potential litigation/legal risks of a proposed action pursuant to RCW 42.30.110(1)(i) related to the four parcels sold adjacent to TRAC auctioned in 2006 expected to last up to 15 minutes. Mr. Folsom left the audience.

Open Session at 10:10 am. Present in audience: Geoff Folsom, Janet Taylor and Rosie Rumsey.

COMMISSIONERS RECORD 52
FRANKLIN COUNTY
Commissioners' Proceedings for August 21, 2013

Recessed at 10:11 am.

Reconvened at 10:19 am.

HUMAN RESOURCES (HR)

HR Director Rosie Rumsey and Chief Civil Deputy Prosecutor Ryan Verhulp met with the Board.

2012 Collective Bargaining Agreement, Local 12-369, Sheriff's Clerical and Dispatch Union

Ms. Rumsey explained changes from the previous agreement.

Motion – Mr. Peck: I move for approval of 2012 Collective Bargaining Agreement between Franklin County Commissioners, Franklin County Sheriff, and United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW) on behalf of Local 12-369, Sheriff's Clerical and Dispatch Union. Second by Mr. Koch. 3:0 vote in favor. Resolution 2013-299 was approved.

PROSECUTOR

Deputy Prosecutor Janet Taylor and Human Resources Director Rosie Rumsey met with the Board.

Executive Session at 10:27 am pursuant to RCW 42.30.140(4) regarding contract negotiations to discuss collective bargaining expected to last up to 10 minutes.

Open Session at 10:38 am.

OTHER BUSINESS

Present in audience: Ryan Verhulp and Janet Taylor.

Washington Counties Risk Pool (WCRP) Insurance

After discussion, the Board agreed to keep the county's deductible amount at $25,000 and purchase an additional $5 million of optional excess insurance, costing about $1700 per year.

Office of Public Defense

The Board reviewed the budget transfer request to cover legal expenses incurred from the *State v. Tashia Stuart* case.

Motion – Mr. Koch moved for approval of an Inter-Budget Transfer of $60,000 from the 2013 Current Expense Non-Departmental Budget 001-000-700, line item 519.90.00.0001, Contingency, to the Public Defense Budget 001-000-180, line item 512.81.41.1000,

COMMISSIONERS RECORD 52
FRANKLIN COUNTY
Commissioners' Proceedings for August 21, 2013

Miscellaneous Professional Services. Second by Mr. Peck. 3:0 vote in favor. Resolution 2013-300 was approved.

Ground Water Management Area (GWMA) (10:43 am)

GWMA has requested a letter of support for proposed work on groundwater for Moses Lake and Othello.

Motion – Mr. Koch moved for approval of a letter of support. Second by Mr. Peck. 3:0 vote in favor. (Exhibit 4)

PROSECUTOR (10:47 am)

Prosecutor Shawn Sant, Chief Civil Deputy Prosecutor Ryan Verhulp and Deputy Prosecutor Janet Taylor met with the Board.

Executive Session at 10:47 am for an additional 15 minutes of Executive Session to review the performance of a public employee per RCW 42.30.110(1)(g) (continued from session that ended at 9:16 am). Mrs. Withers left the meeting.

Open Session at 11:04 am.

Executive Session continued at 11:04 am expected to last 15 minutes.

Open Session at 11:23 am. Mr. Sant, Mr. Verhulp and Ms. Taylor left the meeting.

OTHER BUSINESS

Executive Session at 11:23 am pursuant to RCW 42.30.110(1)(g) to review the performance of a public employee expected to last 30 minutes with the expectation if we get done earlier we will adjourn without taking action.

Open Session at 11:43 am.

ADJOURNMENT

Motion – Mr. Peck: I move to adjourn. Second by Mr. Koch. 3:0 vote in favor.

Adjourned at 11:43 am.

COMMISSIONERS RECORD 52
FRANKLIN COUNTY
Commissioners' Proceedings for August 21, 2013

There being no further business, the Franklin County Board of Commissioners meeting was adjourned until August 28, 2013.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

Rick Miller, Chairman

Robert E. Koch, Chairman Pro Tem

Brad Peck, Member

Attest:

Clerk to the Board

Approved and signed September 4, 2013.

EXHIBIT 1 August 21, 2013

FRANKLIN COUNTY AUDITOR

Matt Beaton, Auditor

8/21/2013

Franklin County Commissioners:

Vouchers audited and certified by the auditing officer by RCW 42.24.080, expense reimbursement claims.

Action: As of this date, 8/21/2013

Move that the following warrants be approved for payment:

certified by RCW 42.24.090, have been recorded on a listing, which has been sent to the board members.

FUND Expenditures	WARRANTS		AMOUNT ISSUED
County Roads	86067	-	$28,000.00
Current Expense	86068	86112	$64,014.93
Current Expense	86113	86146	$14,659.50
Current Expense	86147	86189	$63,084.38
Election Equipment Revolving	86190	-	$122.28
Boating Safety Fund	86191	86197	$3,541.78
Jail Commissary	86198	86200	$1,572.76
Enhanced 911	86201	86205	$14,469.53
Ending Homelessness Fund	86206	-	$2,108.00
.3% Criminal Justice Const Fnd	86207	86209	$1,873,723.92
County Roads	86210	86227	$202,833.04
Solid Waste	86228	86229	$413.01
Motor Vehicle/Public Works	86230	86247	$43,354.25
FC Public Facilities Const Fund	86248	-	$354.18
TRAC Operations Fund	86249	86275	$24,273.11
Franklin County RV Facility	86276	86279	$3,737.41
Current Expense	Excise Tax		$537.97
Enhanced 911	Excise Tax		-$86.00
TRAC Operations Fund	Excise Tax		$123.06
Franklin County RV Facility	Excise Tax		$1.03
Motor Vehicle/Public Works	Excise Tax		$351.99

In the amount of $2,341,190.13

The motion was seconded by

And passed by a vote of 3 to 0

The attached vouchers have been approved by Auditor or Deputy

Vouchers Audited By: Julie Jordan

1016 North 4th Avenue *P.O. Box 1451*Pasco, WA 99301*(509) 545-3502*fax (509) 543-2995
www.co.franklin.wa.us

Franklin County
Board of Commissioners
Agenda Summary Report

DATE: August 12, 2013	**PRESENTED BY:** Jerrod MacPherson

ITEM: (Select One) _____ Consent Agenda.
__X__ To Be Brought Before the Board. Date: August 21, 2013
Time needed: 15 minutes

SUBJECT / ISSUE: TC-2013-02, a public meeting to review the Planning Commission's recommendation for an application by the Port of Pasco. The Port has proposed a text amendment to the Franklin County Development Regulations (Zoning), Ordinance 7-2005.

ACTION(S) REQUESTED:
Review the Planning Commission Recommendation in a Public Meeting; Pass a motion; and Pass an Ordinance.

BACKGROUND:

The Port of Pasco has proposed a text change to the Franklin County Development Regulations (Zoning), Ordinance # 7-2005. Specifically the text change focuses on Chapter 38 Airport Zoning.

The current airport zoning chapter was established in the early 1970's. RCW 36.70.547 requires every county and city with an airport to use development regulations to discourage the siting of incompatible land uses adjacent to airports. RCW 14.12.030 gives authority to restrict heights and specify the land uses permitted near airports.

The Port of Pasco has been working cooperatively with both the City of Pasco and Franklin County Planning Departments to prepare amendments to the existing Airport Overlay District chapter. The updates are intended to address issues applicable to land use and building code powers to protect both the public and airport users. There are two key components incorporated with the draft updated ordinance language:

1) Protection of airspace consistent with the Federal Aviation Administration regulations, and

2) Maintain compatible land uses around the airport.

The concept of compatible land uses includes limiting high concentrations of development and places of assembly on runway approaches, and limiting residential and other sensitive development in close proximity to airports. WSDOT Aviation recognizes that there is existing developments near airports and the primary intent is to address future development.

The Port of Pasco believes that updating the current City and County Airport Overlay District Codes would serve the dual goal of protecting the airport for future growth and assuring that new development is compatible with the area's regional airport.

PUBLIC TESTIMONY AND DISCUSSIONS:

Phone Discussions: Planning Staff received one (1) phone call from a citizen regarding this application.

In-Office Discussions: Planning Staff did have one (1) conversation with a citizen regarding the proposed text amendment.

Open Record Hearing Testimony:

- In support of application: The Port of Pasco representatives spoke in support of the application.

- In opposition of application: 1 person spoke against the application.

- Clarification only: None.

- Planning Commission Voting/Discussion. Positive recommendation with 6 in favor, and 0 against.

Page 2
Agenda Summary Report

SUMMARY: At the regularly scheduled Planning Commission hearing on May 7, 2013 the Franklin County Planning Commission voted to forward a positive recommendation for this application to the Board of County Commissioners subject to the following five (5) findings of fact:

FINDINGS OF FACT:

1. The proposal **IS IN** accordance with the goals and policies of the Pasco Urban Area Comprehensive Plan and the Franklin County Comprehensive Plan.

    a. This application is in compliance with the intent and spirit of the Franklin County Development Regulations (Zoning).

    b. RCW 36.70.547 requires every county and city with an airport to use development regulations to discourage the siting of incompatible land uses adjacent to airports.

    c. RCW 14.12.030 gives authority to restrict heights and specify the land uses permitted near airports.

2. The effect of the proposal on the immediate vicinity **WILL NOT** be materially detrimental.

    a. Property owners will be able to continue to develop land at the current density level. Typical residential uses are allowed in residentially zoned areas.

3. There **IS** merit and value in the proposal for the community as a whole.

    a. This proposal supports the implementation of the Tri-Cities Airport Master Plan and associated airport improvements necessary to accommodate an increasing population base and travel demands for Franklin County and the Tri-Cities region.

4. Conditions **ARE NOT** required to be imposed in order to mitigate any significant adverse impacts from the proposal.

5. A concomitant agreement between the County and the petitioner **IS NOT** required for this application.

COORDINATION:
Upon completion of the open record public hearing with the Franklin County Planning Commission, the proposed text change was forwarded to the Washington State Department of Commerce for their required review under RCW 36.70A (The Growth Management Act). The State requires a 60 day review and comment period, unless an expedited review is requested. Expedited review was not requested on this application for an update to the Franklin County Development Regulations (Zoning Ordinance 7-2005). The 60 review and comment period has ended, and the Department of Commerce did not comment.

RECOMMENDATION:
The County Planning Commission recommends the Board approve TC-2013-02 with the following motion:

Motion:
Grant approval of text change application TC-2013-02, subject to the five (5) findings of fact.

HANDLING / ROUTING:
There will be two (2) originals brought for signature to the public meeting and distributed as follows – 1. To be filed with the County Auditor; and 2. To be on file in the Planning and Building Department.

ATTACHMENTS:
1). A complete and full version of the amended chapter (Chapter 38 – Airport Zoning; 2). The Department of Commerce's required notice of proposed amendment; and 3). The Department of Commerce's notice of 60 day review procedural requirement being met.

I certify the above information is accurate and complete.

Jerrod MacPherson

Jerrod MacPherson – Director of Planning and Building

ORDINANCE NUMBER 6-2013

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF FRANKLIN COUNTY, WASHINGTON:

IN THE MATTER OF COUNTY PLANNING – TEXT CHANGE TO CHAPTER 38 OF THE FRANKLIN COUNTY DEVELOPMENT REGULATIONS (ZONING) ORDINANCE 7-2005.

APPLICANT: Port of Pasco, P.O. Box 796, Pasco, WA 99301.

WHEREAS, on August 21, 2013 the Clerk of the Board did set this date for a public meeting to consider the positive recommendation of the Franklin County Planning Commission to amend Chapter 38 (Airport Zoning District) of the Franklin County Development Regulations (Zoning) Ordinance 7-2005.

WHEREAS, at the public meeting the Board has found as follows:

1. The County Planning Commission, after public hearing and consideration on **TC 2013-02** did recommend approval of said text change, and

2. The proposal **IS IN** accordance with the goals and policies of the Pasco Urban Area Comprehensive Plan and the Franklin County Comprehensive Plan.

    a. This application is in compliance with the intent and spirit of the Franklin County Development Regulations (Zoning).

    b. RCW 36.70.547 requires every county and city with an airport to use development regulations to discourage the siting of incompatible land uses adjacent to airports.

    c. RCW 14.12.030 gives authority to restrict heights and specify the land uses permitted near airports

3. The effect of the proposal on the immediate vicinity **WILL NOT** be materially detrimental.

    a. Property owners will be able to continue to develop land at the current density level. Typical residential uses are allowed in residentially zoned areas.

4. There **IS** merit and value in the proposal for the community as a whole.

    a. This proposal supports the implementation of the Tri Cities Airport Master Plan and associated airport improvements necessary to accommodate an increasing population base and travel demands for Franklin County and the Tri-Cities region.

5. Conditions **ARE NOT** required to be imposed in order to mitigate any significant adverse impacts from the proposal.

6. A concomitant agreement between the County and the petitioner **IS NOT** required for this application.

WHEREAS, it appears to be in the public use and interest to approve said text change.

NOW, THEREFORE, BE IT ORDAINED that the text change be implemented in accordance with the Franklin County Development Regulations (Zoning) Ordinance 7-2005 and be amended to read as follows:

CHAPTER 38 AIRPORT ZONING

SECTIONS:

38.1.0 PURPOSE. The purpose of the Airport Overlay District is to protect the viability of the Tri-Cities Airport as a significant resource to the community by encouraging compatible land uses, densities and reducing hazards that may endanger the lives and property of the public and aviation users.

38.2.0. AIRPORT OVERLAY DISTRICT. There is hereby created an airport overlay district as identified in the map made a part hereof and labeled, Tri-Cities Airport Future Part 77 Zones Map, and the Airport Safety Compatibility Zones Map, as established by the current Tri-Cities Airport Master Plan. All lands lying within the zones therein shown are subjected to the building and use restrictions within this chapter. This chapter shall be used in addition to and in combination with all other district and development regulations contained in this title. The Airport shall be responsible for providing updated maps to the County, coincident with 10 year updates to the Airport Master Plan. The Airport Overlay District classification identifies a series of imaginary surfaces and safety zones within the airport influence area that has historically been prone to hazards associated with aircraft and airports. This chapter is based on aircraft accident data from the National Transportation Safety Board (NTSB) and the Federal Aviation Regulations (FAR) Part 77 Imaginary Surfaces and the "Airports and Compatibility Land Use Guidebook" produced by the Washington State Department of Transportation Aviation Division. As the name implies, this classification is laid over the

existing Franklin County zoning districts to ensure densities and land use requirements of the underlying zoning districts are consistent with the NTSB standards and provide for maximum protection to the public, health, safety and general welfare of the community and for those citizens working and residing within the airport influence area.

38.3.0. AUTHORITY. The legislature of the state of Washington through RCW 14.12 the "Airport Zoning Act" has given authority to local governments to adopt regulations within its jurisdiction to promote the public health, safety, and general welfare of its citizenry regarding airport hazards. RCW 36.70.547 requires every county, city, and town in which there is located an airport to discourage the siting of incompatible uses adjacent to such aviation airport.

38.4.0. APPLICABILITY. The provisions of this chapter shall apply to all lands, buildings, structures, natural features or uses located within those areas that are defined by the Airport Overlay District and designated on the Tri-Cities Airport Part 77 Surfaces map which identifies areas of height limitations and the Airport Safety Compatibility Zones (ASCZ) map.

38.5.0 DEFINITIONS. The following terms shall have the meanings indicated, specific to this chapter only:

AIRPORT: The Tri-Cities Airport.

AIRPORT ELEVATION: The highest point of an airport's useable landing area measured in feet from sea level. The Tri-Cities Airport is four hundred ten feet (410') above mean sea level.

APPROACH SURFACE: An imaginary surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Chapter 38.6.0. The perimeter of the approach surface coincides with the perimeter of the approach zone.

CONICAL SURFACE: An imaginary surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty to one (20:1) for a horizontal distance of four thousand feet (4,000').

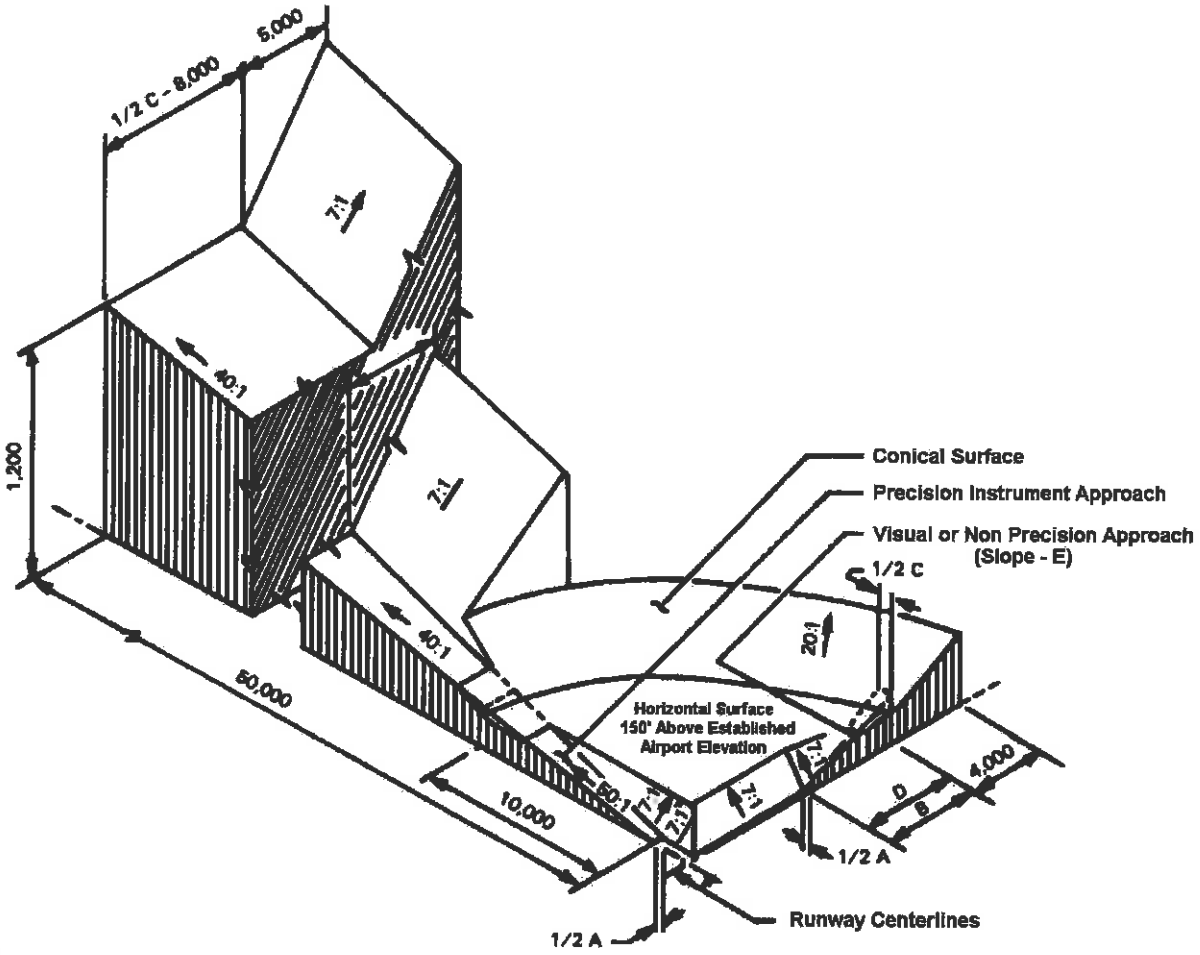
DEED NOTICE: A formal statement provided in 38.11.0 as a note on the face of a short plat, major subdivision or binding site plan recorded against the property notifying potential property owners that the property is located adjacent to an active airport and said property may be impacted by aircraft noise, odors, vibration, and low flying aircraft.

FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION: A form which the Federal Aviation Administration requires to be completed by anyone who is proposing to construct or alter an object that could affect airspace and allows the FAA

to conduct an airspace analysis to determine whether the object will adversely affect airspace or navigational aids. More information regarding this requirement can be found on the FAA website.

FAR PART 77: The Part of 49 CFR of the Federal Aviation Regulations that deals with objects affecting navigable airspace.

FAR PART 77 SURFACES: Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.



HAZARD TO AIR NAVIGATION: An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

HEIGHT: For the purpose of determining the height limits in all zones and as shown on the Tri-Cities Airport Future Part 77 Zones map, this datum shall be height above mean sea level elevation unless otherwise specified.

HORIZONTAL SURFACE: A horizontal plane one hundred fifty feet (150') above the established airport elevation, the perimeter of which plane coincides with the inner perimeter of the conical surface. This is five hundred sixty feet (560') above mean sea level for the Tri-Cities Airport.

INFILL: Development designed to occupy scattered vacant parcels of land which remain after the majority of development has occurred in an area.

OBSTRUCTION: Any object of natural growth, terrain, of permanent or temporary construction or alteration, including equipment or materials used therein which exceeds a limiting height set forth in Chapter 38.7.0.

PRECISION APPROACH: A landing approach made without visual reference to the ground by the use of aircraft instruments and ground-based electronic or communications systems or devices. An aircraft making such an approach should be flying in accordance with an IFR (instrument flight rules) flight plan.

PRIMARY SURFACE: A surface longitudinally centered on a runway with a width of one thousand feet (1,000') for instrument approaches and five-hundred feet (500') for visual approaches. When the runway has a specially prepared hard surface, the primary surface extends two hundred feet beyond each end of the runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The elevation of the Primary Surface at the Tri-Cities airport is four hundred ten feet (410') above mean sea level.

RUNWAY: A defined area on an airport prepared for landing and take-off of aircraft along its length.

TRANSITIONAL SURFACES: These imaginary surfaces extend outward at ninety-degree angles to the runway centerline, and runway centerline extended, at a slope of seven feet (7') horizontally for each foot vertically (7:1) from the sides of the primary and approach surfaces to where they intersect with the horizontal and conical surfaces.

TREE: Any object of natural growth.

VISUAL RUNWAY: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan.

38.6.0 HEIGHT LIMITATION ZONES. The height limitation zones are hereby established, consistent with the FAR Part 77 Surfaces – Objects Affecting Navigable Airspace, and are described below.

(1) PRECISION INSTRUMENT APPROACH ZONE. Includes Runways 3L, 21R, 30. A precision instrument approach zone is established at each end of a precision instrument runway for instrument landings and takeoffs. The precision instrument approach zones shall have a width of one thousand feet (1,000') at a distance of two hundred feet (200') beyond each end of the runway, coinciding with the Primary Surface widening thereafter uniformly to a width of sixteen thousand feet (16,000') at a

distance of fifty thousand two hundred feet (50,200') beyond each end of the runway, its centerline being the continuation of the centerline of the runway.

(2) NON-PRECISION INSTRUMENT APPROACH ZONE. Includes Runway 12. A Non-Precision instrument approach zone is established at each end of a Non-Precision instrument runway for improved landings and takeoffs. The non-precision instrument approach zones shall have a width of five hundred feet (500') at a distance of two hundred feet (200') beyond each end of the runway, thereafter widening uniformly to a width of three thousand five hundred feet (3,500') at a distance of ten thousand two-hundred feet (10,200') beyond each end of the runway, it's centerline being the continuation of the centerline of the runway.

(3) VISUAL APPROACH ZONE. Includes Runways 3R and 21L. A visual approach zone is established at each end of all visual runways for landings and takeoffs. The visual approach zones shall have a width of five hundred feet (500') at a distance of two hundred feet (200') beyond each end of the runway, widening thereafter uniformly to a width of one thousand five hundred (1,500) feet at a distance of five thousand two hundred feet (5,200') beyond each end of the runway, its centerline being the continuation of the centerline of the runway.

(4) TRANSITION ZONES. Transition zones are hereby established adjacent to each instrument and non-instrument runway and approach zone as indicated on the Tri-Cities Airport Future Part 77 Zones map. Transition zones symmetrically located on either side of runways have variable widths as shown on the map. Transition zones extend outward from a line two hundred fifty feet (250') on either side of the centerline of the non instrument runway, for the length of such runway plus two hundred feet (200') on each end; and five hundred feet (500') on either side of the centerline of the instrument runway, for the length of such runway plus two hundred feet (200') on each end, beginning at and are parallel and level with such runway centerlines. The transition zones along such runways slope upward and outward one foot vertically for each seven feet horizontally to the point where they intersect the surface of the horizontal zone. Further, transition zones are established adjacent to both instrument and non-instrument approach zones for the entire length of the approach zones. These transition zones have variable widths, as shown on the Tri-Cities Airport Future Part 77 Zones map. Such transition zones flare symmetrically with either side of the runway approach zones from the base of such zones and slope upward and outward at the rate of one foot vertically for each seven feet horizontally to the points where they intersect the horizontal and conical surfaces . Additionally, transition zones are established adjacent to the instrument approach zone where it projects through and beyond the limits of the conical zone, extending a distance of five thousand feet measured horizontally from the edge of the instrument approach zones at right angles to the continuation of the centerline of the runway.

(5) HORIZONTAL ZONE. A horizontal zone is hereby established as the area within a horizontal plane one hundred fifty feet (150') above the established airport elevation or at a height of five hundred sixty feet (560') above mean sea level, the perimeter of which is constructed by swinging arcs of ten thousand feet radii from the center of each end of the primary surface of each runway of the airport and connecting the adjacent arcs by lines tangent to those arcs. The horizontal zone does not include the instrument and non-instrument approach zones and the transition zones.

(6) CONICAL ZONE. A conical zone is hereby established as the area that commences at the periphery of the horizontal zone and extends outward therefrom a distance of four thousand feet. The conical zone does not include the instrument approach zones and transition zones.

38.7.0 HEIGHT LIMITATIONS. No building, pipe, chimney, tower, steeple, stand, platform, pole, wire or structure or erection or object of natural growth, or obstruction of any kind or nature whatsoever, shall be built, placed, hung, or permitted to grow or allowed to be built, placed or hung which shall at any point or part thereof exceed the heights as provided in the zones established herein. Where an area is covered by more than one height limitation, the more restrictive limitations shall prevail. The restrictions shall apply to the area surrounding all runways and approaches situated thereon. The owner of any existing nonconforming building, structure, or tree shall be required to permit the installation, operation, and maintenance thereon of any markers and lights as deemed necessary by the airport sponsor or the FAA to indicate to operators of aircraft in the vicinity of the airport the presence of such airport obstruction. Such height limitations are hereby established for each zone as follows:

(1) Precision Instrument Approach Zone. Beginning at the end of and at the same elevations as the Primary Surface, slopes one foot in height for each fifty feet (50:1) in horizontal distance and extending to a distance of ten thousand two hundred feet (10,200) from the end of the runway; thence one foot in height for each forty feet in horizontal distance to a point fifty thousand two hundred feet (50,200) from the end of the runway;

(2) Non-Precision Instrument Approach Zone. Beginning at the end of and at the same elevations as the Primary Surface, slopes one foot in height for each thirty-four feet (34:1) in horizontal distance and extending to a distance of ten thousand two hundred feet (10,200) from the end of the runway;

(3) Visual Approach Zones. Beginning at the end of and at the same elevation as the Primary Surface, slopes one foot in height for each twenty feet (20:1) in horizontal distance and extending to a point ten thousand two hundred feet (5,200') from the end of the runway;

(4) Transition Zones. Slopes outward one foot in height for each seven feet (7:1) in horizontal distance beginning at the Primary Surface, extending to a height of one hundred fifty feet (150') above the airport elevation which is four hundred ten feet (410') above mean sea level. In addition to the foregoing, there are established height limits of one foot vertical height for each seven feet horizontal (7:1) distance measured from the edges of all approach zones for the entire length of the approach zones and extending upward and outward to the points where they intersect the horizontal or conical surfaces. Further, where the instrument approach zone projects through and beyond the conical zone, a height limit of one foot for each seven feet of horizontal distance shall be maintained beginning at the edge of the instrument approach zone and extending a distance of five thousand feet (5,000') from the edge of the instrument approach zone measured normal to the centerline of the runway extended;

(5) Horizontal Zone. One hundred fifty feet (150') above the airport elevation or a height of five hundred sixty feet (560) above mean sea level;

(6) Conical Zone. Slopes outward one foot in height for each twenty feet (20:1) of horizontal distance beginning at the periphery of the horizontal zone, extending four thousand feet (4,000') to a height of three hundred fifty feet (350') above the airport elevation or a height of seven hundred sixty feet above mean sea level (760').

38.8.0 USE RESTRICTIONS.

(1) General Requirements: Notwithstanding any other provisions of this chapter, no use may be made of land or water within any zone established by this chapter in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for flyers to distinguish between airport lights and others, result in glare in the eyes of flyers using the airport, impair visibility in the vicinity of the airport, create bird strike hazards or otherwise in any way endanger or interfere with the landing, taking off, or maneuvering of aircraft.

(2) Lighting: No new or expanded industrial, commercial, recreational or residential use shall project lighting directly onto an existing runway, taxiway, or approach/departure surface except where necessary for safe air travel. Lighting for these uses shall incorporate shielding to reflect light away from the airport and shall not imitate airport lighting.

(3) Communications Facilities: Approval of cellular and other communications or transmission towers located within any zone described within section 38.6.0 shall be conditioned to require their removal within 90 days of discontinuance of use.

38.9.0 AIRPORT SAFETY COMPATIBILITY ZONES. Zones described below are shown in the Airport Safety Compatibility Zones (ASCZ) map with the prohibited land uses listed below in order to promote the general safety general welfare of properties surrounding the airport and the continued viability of the airport.

Zone 1 – Runway Protection Zone (RPZ): only airport uses and activities are allowed within the RPZ.

Zone 2 – Inner Approach/Departure Zone: Prohibited land uses within this zone are places of public assembly such as churches, schools (K-12), colleges, hospitals; high density office, retail or service buildings; shopping centers and other uses with similar concentrations of persons. Residential is permitted on legal lots of record and on new lots provided the density is not greater than 4 dwelling units per 20 acres. Clustering of residential lots to preserve open space adjacent to approach corridors and new runway end is preferred. South of I-182, infill residential is allowed provided the density is similar to the existing residential development in the area. North of I-182, infill residential is allowed provided the land is zoned Rural Residential and the density is similar to the existing residential development in the area. All new lots and infill residential development must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

Production of asphalt paving and roofing materials or rock crushing are also prohibited. Fuel storage facilities or the storage or use of significant amounts of materials which are explosive, flammable, toxic, corrosive, or otherwise exhibit hazardous characteristics shall not be located within the Inner Approach/Departure Zone. Hazardous wildlife

attractants including waste disposal operations, water management and storm water facilities with above-ground water storage, and man-made wetlands shall not be allowed within the Inner Approach/Departure Zone.

Zone 3 – Inner Turning Zone: Prohibited land uses within this zone are schools (K-12) and hospitals. New residential development is prohibited unless it is infill residential similar in density to the existing residential development. All new infill residential development must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

Zone 4 – Outer Approach/Departure Zone: Prohibited land uses within this zone are places of public assembly such as churches, schools (K-12), hospitals, shopping centers and other uses with similar concentrations of persons. Residential is permitted on legal lots of record and on new lots provided the density is not greater than 4 dwelling units per 20 acres. Clustering of residential lots to preserve open space adjacent to approach corridors and new runway end is preferred. . South of I-182, infill residential is allowed provided the density is similar to the existing residential development in the area. North of I-182, infill residential is allowed provided the land is zoned Rural Residential and the density is similar to the existing residential development in the area. All new lots and infill residential development must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

Zone 5 – Sideline Zone: Prohibited land uses within this zone are residences, except residences that are constructed to replace existing residences, of like size and type, damaged by fire and other causes, places of public assembly such as churches, schools, hospitals, shopping centers and other uses with similar concentrations of persons. Mining, including sand and gravel pits are prohibited in the Sideline Zone.

Zone 6 – Traffic Pattern Zone: Prohibited land uses within this zone are new schools (K-12), hospitals and other uses with similar concentrations of persons. Replacement or expansion of existing schools is permitted. All new residential developments must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

38.10.0: GENERAL REVIEW PROCEDURES. No use, building, structure, or development activity shall be permitted, established, altered or relocated by any person except as otherwise authorized by this chapter. All permit applications within the Airport Overlay District shall, in addition to being reviewed through the standard development review process, be subject to the following:

A. All developments, permits or plats with proposed buildings and/or structures found to be within twenty feet (20') of any of the height limitations described in 38.7.0 and/or all buildings and structures over two hundred feet (200') in height must submit a site plan, building elevations and an FAA Form 7460-1 to the Port of Pasco Administrative Office for Port and FAA review and approval. Upon review, further documentation shall be required, if more accurate data is necessary for a determination of impact including detailed surveys by a licensed land surveyor.
B. All developments, permits or plats falling within the ASCZs described in 38.9.0 associated with special use permits, variances or existing non-conforming

uses must also submit a site plan to the Port of Pasco Administrative Office for Port review.

38.11.0 DISCLOSURE. To all extents possible, property owners and potential property buyers should be made aware of the following disclosure. The disclosure statement shall be listed on all approved subdivision plats, short plats, binding site plans and deeds within any of the identified zones in section 38.6.0 or 38.9.0.

"Properties near the Tri-Cities Airport may be subject to varying noise levels and vibration. Properties near the airport may be located within height and use restriction zones as described and illustrated by Federal standards and regulations and the Franklin County Zoning and Development Regulations. There is the potential that standard flight patterns will result in aircraft passing over the properties at low altitudes and during all hours of the day. Future airport expansion including a potential 1850' runway extension to the northwest may impact the size and number of aircraft that utilize the airport. Generally it is not practical to redirect or severely limit airport usage and/or planned airport expansion. Developments near the airport should assume that at any given time there will be some impact from air traffic."

SIGNED AND DATED THIS 21st DAY OF AUGUST 2013.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

_____
CHAIRMAN

ATTEST:

_____
CHAIR PRO TEM

_____
CLERK OF THE BOARD

_____
MEMBER

Department of Commerce

Innovation is in our nature.

Notice of Intent to Adopt Amendment
60 Days Prior to Adoption

Indicate one (or both, if applicable):

☐ **Comprehensive Plan Amendment**
☒ **Development Regulation Amendment**

Pursuant to RCW 36.70A.106, the following jurisdiction provides notice of intent to adopt a proposed comprehensive plan amendment and/or development regulation amendment under the Growth Management Act.

Jurisdiction:	Franklin County
Mailing Address:	1016 North 4th Avenue Pasco, WA 99301
Date:	May 13, 2013

Contact Name:	Jerrod MacPherson
Title/Position:	Director of Planning and Building
Phone Number:	509-545-3521
E-mail Address:	jmacpherson@co.franklin.wa.us

Brief Description of the Proposed/Draft Amendment: *If this draft amendment is provided to supplement an existing 60-day notice already submitted, then please provide the date the original notice was submitted and the Commerce Material ID number (located in your Commerce acknowledgement letter.)*	Proposed amendment to the Franklin County Development Regulations (Zoning), Ordinance # 7-2005. Specifically the text change focuses on Chapter 38 Airport Zoning. The current airport zoning chapter was established in the early 1970's. RCW 36.70.547 requires every county and city with an airport to use development regulations to discourage the siting of incompatible land uses adjacent to airports. RCW 14.12.030 gives authority to restrict heights and specify the land uses permitted near airports. The updates are intended to address issues applicable to land use and building code powers to protect both the public and airport users.
Is this action part of the periodic review and update? *GMA requires review every 8 years under RCW 36.70A.130(4)-(6).*	No
Public Hearing Date:	Planning Commission: May 7, 2013 County Commission: Mid July of 2013
Proposed Adoption Date:	Mid July of 2013

REQUIRED: Attach or include a copy the proposed amendment text.

STATE OF WASHINGTON
DEPARTMENT OF COMMERCE
1011 Plum Street SE • PO Box 42525 • Olympia, Washington 98504-2525 • (360) 725-4000
www.commerce.wa.gov

May 14, 2013

Jerrod MacPherson
Planning Director
Franklin County
1016 North Fourth
Pasco, Washington 99301

Dear Mr. MacPherson:

Thank you for sending the Washington State Department of Commerce (Commerce) the following materials as required under RCW 36.70A.106. Please keep this letter as documentation that you have met this procedural requirement.

County of Franklin - Proposed amendment to the Franklin County development regulation (zoning.) These materials were received on May 13, 2013 and processed with the Material ID # 19139.

We have forwarded a copy of this notice to other state agencies.

If this submitted material is an adopted amendment, then please keep this letter as documentation that you have met the procedural requirement under RCW 36.70A.106.

If you have submitted this material as a draft amendment, then final adoption may occur no earlier than sixty days following the date of receipt by Commerce. Please remember to submit the final adopted amendment to Commerce within ten days of adoption.

If you have any questions, please contact Growth Management Services at reviewteam@commerce.wa.gov, or call Dave Andersen (509) 434-4491 or Paul Johnson (360) 725-3048.

Sincerely,

Review Team
Growth Management Services

ORDINANCE NUMBER 6-2013

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF FRANKLIN COUNTY, WASHINGTON:

IN THE MATTER OF COUNTY PLANNING – TEXT CHANGE TO CHAPTER 38 OF THE FRANKLIN COUNTY DEVELOPMENT REGULATIONS (ZONING) ORDINANCE 7-2005.

APPLICANT: Port of Pasco, P.O. Box 796, Pasco, WA 99301.

WHEREAS, on August 21, 2013 the Clerk of the Board did set this date for a public meeting to consider the positive recommendation of the Franklin County Planning Commission to amend Chapter 38 (Airport Zoning District) of the Franklin County Development Regulations (Zoning) Ordinance 7-2005.

WHEREAS, at the public meeting the Board has found as follows:

1. The County Planning Commission, after public hearing and consideration on **TC 2013-02** did recommend approval of said text change, and

2. The proposal **IS IN** accordance with the goals and policies of the Pasco Urban Area Comprehensive Plan and the Franklin County Comprehensive Plan.

    a. This application is in compliance with the intent and spirit of the Franklin County Development Regulations (Zoning).

    b. RCW 36.70.547 requires every county and city with an airport to use development regulations to discourage the siting of incompatible land uses adjacent to airports.

    c. RCW 14.12.030 gives authority to restrict heights and specify the land uses permitted near airports

3. The effect of the proposal on the immediate vicinity **WILL NOT** be materially detrimental.

    a. Property owners will be able to continue to develop land at the current density level. Typical residential uses are allowed in residentially zoned areas.

4. There **IS** merit and value in the proposal for the community as a whole.

    a. This proposal supports the implementation of the Tri Cities Airport Master Plan and associated airport improvements necessary to accommodate an increasing population base and travel demands for Franklin County and the Tri-Cities region.

5. Conditions **ARE NOT** required to be imposed in order to mitigate any significant adverse impacts from the proposal.

6. A concomitant agreement between the County and the petitioner **IS NOT** required for this application.

WHEREAS, it appears to be in the public use and interest to approve said text change.

NOW, THEREFORE, BE IT ORDAINED that the text change be implemented in accordance with the Franklin County Development Regulations (Zoning) Ordinance 7-2005 and be amended to read as follows:

CHAPTER 38 AIRPORT ZONING

SECTIONS:

38.1.0 PURPOSE. The purpose of the Airport Overlay District is to protect the viability of the Tri-Cities Airport as a significant resource to the community by encouraging compatible land uses, densities and reducing hazards that may endanger the lives and property of the public and aviation users.

38.2.0. AIRPORT OVERLAY DISTRICT. There is hereby created an airport overlay district as identified in the map made a part hereof and labeled, Tri-Cities Airport Future Part 77 Zones Map, and the Airport Safety Compatibility Zones Map, as established by the current Tri-Cities Airport Master Plan. All lands lying within the zones therein shown are subjected to the building and use restrictions within this chapter. This chapter shall be used in addition to and in combination with all other district and development regulations contained in this title. The Airport shall be responsible for providing updated maps to the County, coincident with 10 year updates to the Airport Master Plan. The Airport Overlay District classification identifies a series of imaginary surfaces and safety zones within the airport influence area that has historically been prone to hazards associated with aircraft and airports. This chapter is based on aircraft accident data from the National Transportation Safety Board (NTSB) and the Federal Aviation Regulations (FAR) Part 77 Imaginary Surfaces and the "Airports and Compatibility Land Use Guidebook" produced by the Washington State Department of Transportation Aviation Division. As the name implies, this classification is laid over the

existing Franklin County zoning districts to ensure densities and land use requirements of the underlying zoning districts are consistent with the NTSB standards and provide for maximum protection to the public, health, safety and general welfare of the community and for those citizens working and residing within the airport influence area.

38.3.0. AUTHORITY. The legislature of the state of Washington through RCW 14.12 the "Airport Zoning Act" has given authority to local governments to adopt regulations within its jurisdiction to promote the public health, safety, and general welfare of its citizenry regarding airport hazards. RCW 36.70.547 requires every county, city, and town in which there is located an airport to discourage the siting of incompatible uses adjacent to such aviation airport.

38.4.0. APPLICABILITY. The provisions of this chapter shall apply to all lands, buildings, structures, natural features or uses located within those areas that are defined by the Airport Overlay District and designated on the Tri-Cities Airport Part 77 Surfaces map which identifies areas of height limitations and the Airport Safety Compatibility Zones (ASCZ) map.

38.5.0 DEFINITIONS. The following terms shall have the meanings indicated, specific to this chapter only:

AIRPORT: The Tri-Cities Airport.

AIRPORT ELEVATION: The highest point of an airport's useable landing area measured in feet from sea level. The Tri-Cities Airport is four hundred ten feet (410') above mean sea level.

APPROACH SURFACE: An imaginary surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Chapter 38.6.0. The perimeter of the approach surface coincides with the perimeter of the approach zone.

CONICAL SURFACE: An imaginary surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty to one (20:1) for a horizontal distance of four thousand feet (4,000').

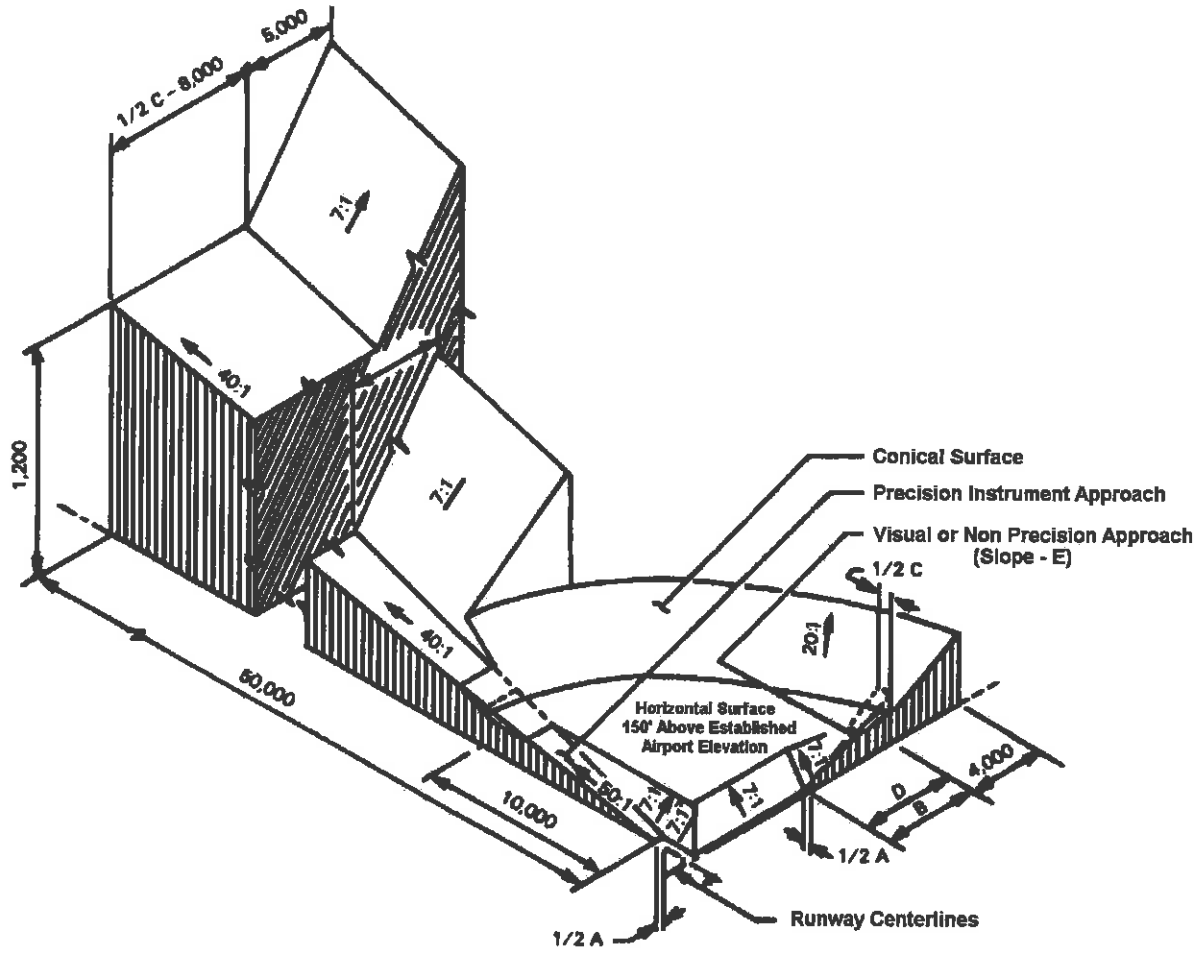
DEED NOTICE: A formal statement provided in 38.11.0 as a note on the face of a short plat, major subdivision or binding site plan recorded against the property notifying potential property owners that the property is located adjacent to an active airport and said property may be impacted by aircraft noise, odors, vibration, and low flying aircraft.

FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION: A form which the Federal Aviation Administration requires to be completed by anyone who is proposing to construct or alter an object that could affect airspace and allows the FAA

to conduct an airspace analysis to determine whether the object will adversely affect airspace or navigational aids. More information regarding this requirement can be found on the FAA website.

FAR PART 77: The Part of 49 CFR of the Federal Aviation Regulations that deals with objects affecting navigable airspace.

FAR PART 77 SURFACES: Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.



HAZARD TO AIR NAVIGATION: An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

HEIGHT: For the purpose of determining the height limits in all zones and as shown on the Tri-Cities Airport Future Part 77 Zones map, this datum shall be height above mean sea level elevation unless otherwise specified.

HORIZONTAL SURFACE: A horizontal plane one hundred fifty feet (150') above the established airport elevation, the perimeter of which plane coincides with the inner perimeter of the conical surface. This is five hundred sixty feet (560') above mean sea level for the Tri-Cities Airport.

INFILL: Development designed to occupy scattered vacant parcels of land which remain after the majority of development has occurred in an area.

OBSTRUCTION: Any object of natural growth, terrain, of permanent or temporary construction or alteration, including equipment or materials used therein which exceeds a limiting height set forth in Chapter 38.7.0.

PRECISION APPROACH: A landing approach made without visual reference to the ground by the use of aircraft instruments and ground-based electronic or communications systems or devices. An aircraft making such an approach should be flying in accordance with an IFR (instrument flight rules) flight plan.

PRIMARY SURFACE: A surface longitudinally centered on a runway with a width of one thousand feet (1,000') for instrument approaches and five-hundred feet (500') for visual approaches. When the runway has a specially prepared hard surface, the primary surface extends two hundred feet beyond each end of the runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The elevation of the Primary Surface at the Tri-Cities airport is four hundred ten feet (410') above mean sea level.

RUNWAY: A defined area on an airport prepared for landing and take-off of aircraft along its length.

TRANSITIONAL SURFACES: These imaginary surfaces extend outward at ninety-degree angles to the runway centerline, and runway centerline extended, at a slope of seven feet (7') horizontally for each foot vertically (7:1) from the sides of the primary and approach surfaces to where they intersect with the horizontal and conical surfaces.

TREE: Any object of natural growth.

VISUAL RUNWAY: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan.

38.6.0 HEIGHT LIMITATION ZONES. The height limitation zones are hereby established, consistent with the FAR Part 77 Surfaces – Objects Affecting Navigable Airspace, and are described below.

(1) PRECISION INSTRUMENT APPROACH ZONE. Includes Runways 3L, 21R, 30. A precision instrument approach zone is established at each end of a precision instrument runway for instrument landings and takeoffs. The precision instrument approach zones shall have a width of one thousand feet (1,000') at a distance of two hundred feet (200') beyond each end of the runway, coinciding with the Primary Surface widening thereafter uniformly to a width of sixteen thousand feet (16,000') at a

distance of fifty thousand two hundred feet (50,200') beyond each end of the runway, its centerline being the continuation of the centerline of the runway.

(2) NON-PRECISION INSTRUMENT APPROACH ZONE. Includes Runway 12. A Non-Precision instrument approach zone is established at each end of a Non-Precision instrument runway for improved landings and takeoffs. The non-precision instrument approach zones shall have a width of five hundred feet (500') at a distance of two hundred feet (200') beyond each end of the runway, thereafter widening uniformly to a width of three thousand five hundred feet (3,500') at a distance of ten thousand two-hundred feet (10,200') beyond each end of the runway, it's centerline being the continuation of the centerline of the runway.

(3) VISUAL APPROACH ZONE. Includes Runways 3R and 21L. A visual approach zone is established at each end of all visual runways for landings and takeoffs. The visual approach zones shall have a width of five hundred feet (500') at a distance of two hundred feet (200') beyond each end of the runway, widening thereafter uniformly to a width of one thousand five hundred (1,500) feet at a distance of five thousand two hundred feet (5,200') beyond each end of the runway, its centerline being the continuation of the centerline of the runway.

(4) TRANSITION ZONES. Transition zones are hereby established adjacent to each instrument and non-instrument runway and approach zone as indicated on the Tri-Cities Airport Future Part 77 Zones map. Transition zones symmetrically located on either side of runways have variable widths as shown on the map. Transition zones extend outward from a line two hundred fifty feet (250') on either side of the centerline of the non instrument runway, for the length of such runway plus two hundred feet (200') on each end; and five hundred feet (500') on either side of the centerline of the instrument runway, for the length of such runway plus two hundred feet (200') on each end, beginning at and are parallel and level with such runway centerlines. The transition zones along such runways slope upward and outward one foot vertically for each seven feet horizontally to the point where they intersect the surface of the horizontal zone. Further, transition zones are established adjacent to both instrument and non-instrument approach zones for the entire length of the approach zones. These transition zones have variable widths, as shown on the Tri-Cities Airport Future Part 77 Zones map. Such transition zones flare symmetrically with either side of the runway approach zones from the base of such zones and slope upward and outward at the rate of one foot vertically for each seven feet horizontally to the points where they intersect the horizontal and conical surfaces . Additionally, transition zones are established adjacent to the instrument approach zone where it projects through and beyond the limits of the conical zone, extending a distance of five thousand feet measured horizontally from the edge of the instrument approach zones at right angles to the continuation of the centerline of the runway.

(5) HORIZONTAL ZONE. A horizontal zone is hereby established as the area within a horizontal plane one hundred fifty feet (150') above the established airport elevation or at a height of five hundred sixty feet (560') above mean sea level, the perimeter of which is constructed by swinging arcs of ten thousand feet radii from the center of each end of the primary surface of each runway of the airport and connecting the adjacent arcs by lines tangent to those arcs. The horizontal zone does not include the instrument and non-instrument approach zones and the transition zones.

(6) CONICAL ZONE. A conical zone is hereby established as the area that commences at the periphery of the horizontal zone and extends outward therefrom a distance of four thousand feet. The conical zone does not include the instrument approach zones and transition zones.

38.7.0 HEIGHT LIMITATIONS. No building, pipe, chimney, tower, steeple, stand, platform, pole, wire or structure or erection or object of natural growth, or obstruction of any kind or nature whatsoever, shall be built, placed, hung, or permitted to grow or allowed to be built, placed or hung which shall at any point or part thereof exceed the heights as provided in the zones established herein. Where an area is covered by more than one height limitation, the more restrictive limitations shall prevail. The restrictions shall apply to the area surrounding all runways and approaches situated thereon. The owner of any existing nonconforming building, structure, or tree shall be required to permit the installation, operation, and maintenance thereon of any markers and lights as deemed necessary by the airport sponsor or the FAA to indicate to operators of aircraft in the vicinity of the airport the presence of such airport obstruction. Such height limitations are hereby established for each zone as follows:

(1) Precision Instrument Approach Zone. Beginning at the end of and at the same elevations as the Primary Surface, slopes one foot in height for each fifty feet (50:1) in horizontal distance and extending to a distance of ten thousand two hundred feet (10,200) from the end of the runway; thence one foot in height for each forty feet in horizontal distance to a point fifty thousand two hundred feet (50,200) from the end of the runway;

(2) Non-Precision Instrument Approach Zone. Beginning at the end of and at the same elevations as the Primary Surface, slopes one foot in height for each thirty-four feet (34:1) in horizontal distance and extending to a distance of ten thousand two hundred feet (10,200) from the end of the runway;

(3) Visual Approach Zones. Beginning at the end of and at the same elevation as the Primary Surface, slopes one foot in height for each twenty feet (20:1) in horizontal distance and extending to a point ten thousand two hundred feet (5,200') from the end of the runway;

(4) Transition Zones. Slopes outward one foot in height for each seven feet (7:1) in horizontal distance beginning at the Primary Surface, extending to a height of one hundred fifty feet (150') above the airport elevation which is four hundred ten feet (410') above mean sea level. In addition to the foregoing, there are established height limits of one foot vertical height for each seven feet horizontal (7:1) distance measured from the edges of all approach zones for the entire length of the approach zones and extending upward and outward to the points where they intersect the horizontal or conical surfaces. Further, where the instrument approach zone projects through and beyond the conical zone, a height limit of one foot for each seven feet of horizontal distance shall be maintained beginning at the edge of the instrument approach zone and extending a distance of five thousand feet (5,000') from the edge of the instrument approach zone measured normal to the centerline of the runway extended;

(5) Horizontal Zone. One hundred fifty feet (150') above the airport elevation or a height of five hundred sixty feet (560) above mean sea level;

(6) Conical Zone. Slopes outward one foot in height for each twenty feet (20:1) of horizontal distance beginning at the periphery of the horizontal zone, extending four thousand feet (4,000') to a height of three hundred fifty feet (350') above the airport elevation or a height of seven hundred sixty feet above mean sea level (760').

38.8.0 USE RESTRICTIONS.

(1) General Requirements: Notwithstanding any other provisions of this chapter, no use may be made of land or water within any zone established by this chapter in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for flyers to distinguish between airport lights and others, result in glare in the eyes of flyers using the airport, impair visibility in the vicinity of the airport, create bird strike hazards or otherwise in any way endanger or interfere with the landing, taking off, or maneuvering of aircraft.

(2) Lighting: No new or expanded industrial, commercial, recreational or residential use shall project lighting directly onto an existing runway, taxiway, or approach/departure surface except where necessary for safe air travel. Lighting for these uses shall incorporate shielding to reflect light away from the airport and shall not imitate airport lighting.

(3) Communications Facilities: Approval of cellular and other communications or transmission towers located within any zone described within section 38.6.0 shall be conditioned to require their removal within 90 days of discontinuance of use.

38.9.0 AIRPORT SAFETY COMPATIBILITY ZONES. Zones described below are shown in the Airport Safety Compatibility Zones (ASCZ) map with the prohibited land uses listed below in order to promote the general safety general welfare of properties surrounding the airport and the continued viability of the airport.

Zone 1 – Runway Protection Zone (RPZ): only airport uses and activities are allowed within the RPZ.

Zone 2 – Inner Approach/Departure Zone: Prohibited land uses within this zone are places of public assembly such as churches, schools (K-12), colleges, hospitals; high density office, retail or service buildings; shopping centers and other uses with similar concentrations of persons. Residential is permitted on legal lots of record and on new lots provided the density is not greater than 4 dwelling units per 20 acres. Clustering of residential lots to preserve open space adjacent to approach corridors and new runway end is preferred. South of I-182, infill residential is allowed provided the density is similar to the existing residential development in the area. North of I-182, infill residential is allowed provided the land is zoned Rural Residential and the density is similar to the existing residential development in the area. All new lots and infill residential development must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

Production of asphalt paving and roofing materials or rock crushing are also prohibited. Fuel storage facilities or the storage or use of significant amounts of materials which are explosive, flammable, toxic, corrosive, or otherwise exhibit hazardous characteristics shall not be located within the Inner Approach/Departure Zone. Hazardous wildlife

attractants including waste disposal operations, water management and storm water facilities with above-ground water storage, and man-made wetlands shall not be allowed within the Inner Approach/Departure Zone.

Zone 3 – Inner Turning Zone: Prohibited land uses within this zone are schools (K-12) and hospitals. New residential development is prohibited unless it is infill residential similar in density to the existing residential development. All new infill residential development must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

Zone 4 – Outer Approach/Departure Zone: Prohibited land uses within this zone are places of public assembly such as churches, schools (K-12), hospitals, shopping centers and other uses with similar concentrations of persons. Residential is permitted on legal lots of record and on new lots provided the density is not greater than 4 dwelling units per 20 acres. Clustering of residential lots to preserve open space adjacent to approach corridors and new runway end is preferred. . South of I-182, infill residential is allowed provided the density is similar to the existing residential development in the area. North of I-182, infill residential is allowed provided the land is zoned Rural Residential and the density is similar to the existing residential development in the area. All new lots and infill residential development must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

Zone 5 – Sideline Zone: Prohibited land uses within this zone are residences, except residences that are constructed to replace existing residences, of like size and type, damaged by fire and other causes, places of public assembly such as churches, schools, hospitals, shopping centers and other uses with similar concentrations of persons. Mining, including sand and gravel pits are prohibited in the Sideline Zone.

Zone 6 – Traffic Pattern Zone: Prohibited land uses within this zone are new schools (K-12), hospitals and other uses with similar concentrations of persons. Replacement or expansion of existing schools is permitted. All new residential developments must include the disclosure statement in Chapter 38.11.0 on plats, short plats and binding site plans.

38.10.0: GENERAL REVIEW PROCEDURES. No use, building, structure, or development activity shall be permitted, established, altered or relocated by any person except as otherwise authorized by this chapter. All permit applications within the Airport Overlay District shall, in addition to being reviewed through the standard development review process, be subject to the following:

A. All developments, permits or plats with proposed buildings and/or structures found to be within twenty feet (20') of any of the height limitations described in 38.7.0 and/or all buildings and structures over two hundred feet (200') in height must submit a site plan, building elevations and an FAA Form 7460-1 to the Port of Pasco Administrative Office for Port and FAA review and approval. Upon review, further documentation shall be required, if more accurate data is necessary for a determination of impact including detailed surveys by a licensed land surveyor.
B. All developments, permits or plats falling within the ASCZs described in 38.9.0 associated with special use permits, variances or existing non-conforming

uses must also submit a site plan to the Port of Pasco Administrative Office for Port review.

38.11.0 DISCLOSURE. To all extents possible, property owners and potential property buyers should be made aware of the following disclosure. The disclosure statement shall be listed on all approved subdivision plats, short plats, binding site plans and deeds within any of the identified zones in section 38.6.0 or 38.9.0.

"Properties near the Tri-Cities Airport may be subject to varying noise levels and vibration. Properties near the airport may be located within height and use restriction zones as described and illustrated by Federal standards and regulations and the Franklin County Zoning and Development Regulations. There is the potential that standard flight patterns will result in aircraft passing over the properties at low altitudes and during all hours of the day. Future airport expansion including a potential 1850' runway extension to the northwest may impact the size and number of aircraft that utilize the airport. Generally it is not practical to redirect or severely limit airport usage and/or planned airport expansion. Developments near the airport should assume that at any given time there will be some impact from air traffic."

SIGNED AND DATED THIS 21st DAY OF AUGUST 2013.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

CHAIRMAN

CHAIR PRO TEM

ATTEST:

CLERK OF THE BOARD

MEMBER

FRANKLIN COUNTY

BOARD OF COMMISSIONERS

BRAD PECK
DISTRICT 1

ROBERT E. KOCH
DISTRICT 2

RICK MILLER
DISTRICT 3

Fred H. Bowen
County Administrator

Rosie H. Rumsey
Human Resources Director

August 21, 2013

Mr. Derek Sandison
Washington State Department of Ecology
Office of Columbia River
15 W. Yakima Avenue
Yakima, Washington 98902-3452

RE: Columbia Basin Ground Water Management Area (GWMA)
2013-2015 Project Proposals for the City of Othello and the City of Moses Lake

Dear Mr. Sandison:

As a member of the Lead Agency for Columbia Basin Ground Water Management Area, the Franklin County Board of Commissioners has reviewed and approved the submission of the 2013-2015 Columbia Basin GWMA Project Proposals for the *City of Othello Aquifer Storage and Recovery Feasibility Assessment* and the *City of Moses Lake Alternative Water Supply Feasibility Assessment* for your consideration.

We wish to express our support for these projects and request your approval for the funding of these projects as soon as possible. If you have any questions or need further information, please feel free to contact us.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

Rick Miller, Chairman

Robert E. Koch, Chair Pro-Tem

Brad Peck, Member

c: Paul Stoker, Columbia Basin GWMA

2013-2015 Columbia Basin GWMA Project Summary: City of Othello Aquifer Storage and Recovery Feasibility Assessment

Introduction

The Challenge: City of Othello water supply wells are pumping predominantly fossil groundwater from the lower Wanapum Basalt (Frenchman Springs Member). Groundwater age dating, stable isotope geochemistry, and cation-anion geochemistry indicates that the source of this groundwater has essentially no modern recharge component. Although water level data in the Othello area is generally sparse, the available data, notably from Well #6, indicates that water level in the portion of the aquifer system that is the primary source of water for Othello is declining several feet per year. Building on these observations, GWMA's groundwater model predicts that water level declines will continue over the next several decades whether or not current groundwater pumping patterns persist and/or deep wells are replaced with surface water irrigation supplies. Comparing estimated water demand and growth predictions with the reported water production capacity of the City's existing wells, the current pumping capacity of City wells likely will not be sufficient to meet future projected needs.

The Goal: GWMA proposes to work with the City of Othello to conduct an aquifer storage and recovery (ASR) feasibility assessment, focusing on how ASR could be used to meet future City water supply needs. The assessment would address such things as hydrogeologic constraints on ASR, potential source water, water rights, and engineering considerations. It would also include a preliminary alternatives assessment, attempting to identify alternatives to ASR that might be able to meet some or all of the City's future water supply needs.

The Objectives: The proposed Othello ASR feasibility assessment project will focus on how ASR could be used to meet long-term water needs, particularly during periods of peak demand, and the work that would need to be completed to implement such a program. Three basic objectives are proposed:

1. Evaluate the local hydrogeology for ASR suitability.
2. Conduct a screening level assessment of groundwater and potential source water quality, including an assessment of geochemical compatibility.
3. Perform preliminary evaluations of water rights, engineering needs for a potential ASR project, and other potential water supply alternatives.

GWMA proposes to work in cooperation with the City and the Department of Health to evaluate ASR potential in the aquifer system underlying the city. GWMA will build on its previously established relationship with the City of Othello to collect data and information needed to evaluate ASR potential, provide the city with a likely timeframe for the necessity of action, and provide planning-level budgets for implementing ASR. The work to be done for this feasibility assessment will focus on the use of existing hydrologic data and information, supplemented by limited new data collection. Preliminary assessments of water rights, permitting, engineering needs, and water supply alternatives to ASR also will be conducted to provide the City with options for consideration as they address future water needs. Additional benefits of this work will be to establish action thresholds and predict the future viability of an ASR-based groundwater supply for time increments of 6, 15, and 30 years into the future. This analysis can then be used to support municipal capital and growth planning.

The following sections describe the scope of work, schedule, deliverables, and budget proposed for this project.

Proposed Scope of Work

Three basic project tasks are proposed to address the goals and objectives listed above, as follows:

1. Task 1: Hydrogeologic Evaluation.
2. Task 2: Groundwater/Source Water Compatibility.
3. Task 3: Preliminary Water Rights, Engineering, and Alternatives Assessment.

The work associated with each task is explored further in the following sections.

Task 1: Hydrogeologic Evaluation

The hydrogeologic evaluation portion of the feasibility assessment will be based primarily on existing City well information, local and regional GWMA hydrogeologic information, and U.S. Geological Survey CPLAT information. This will be supplemented to a limited extent by the results of new pumping tests, water level data collection, and groundwater geochemical sampling.

The objectives of Task 1 are to:

- Evaluate the local hydrogeologic properties of the aquifer system underlying the City.
- Identify potential storage zone targets that appear to have the hydrologic characteristics needed for ASR operations.
- Identify target zone hydrogeologic properties and the extent of potential recharge effects including groundwater flow limiting boundaries that might influence ASR operations.
- Assess the physical suitability of existing City wells for ASR use.

The evaluation of the local hydrogeologic properties of the aquifer system underlying the City will focus on the Columbia River basalt aquifer system and include an assessment of aquifer hydraulic properties, depth to groundwater, groundwater flow direction, potential aquifer response to injection and recovery, and the potential mobility and recoverability of injected water. Our ability to do this will be limited by available well testing information. However, GWMA will work with the City to see if additional well pumping tests are feasible, and if so, conduct such testing as can be accomplished given funding constraints.

Using this hydrogeologic evaluation GWMA will identify potential ASR targets that appear to have the hydrologic characteristics needed for ASR operations. For the potential target zone(s) – to the extent possible given the available data and groundwater model outputs – GWMA will further identify target zone hydrogeologic properties and the extent of potential recharge effects including groundwater flow limiting boundaries that might influence ASR operations.

A major cost savings in any ASR project can be realized if existing wells can be used. This portion of the assessment will look at the physical suitability of existing City wells for future ASR use. With this GWMA will provide the City with guidance as to the potential need for new wells.

Task 2: Groundwater/Source Water Compatibility

An integral part of the proposed ASR feasibility assessment will focus on both source water and groundwater geochemical properties. The objectives of Task 2 will be as follows:

- Evaluate source water quality.
- Evaluate groundwater quality.
- Assess source water and groundwater compatibility.
- Perform a preliminary AKART analysis.

The evaluation of the source water quality and groundwater quality will be based on both existing data and new sampling. Analyses will include the range of drinking water parameters. Source water samples will be collected from such water bodies as nearby canals and shallow groundwater. Groundwater samples will be collected from at least two wells identified in Task 1 as being open to intervals targeted for potential ASR use.

An important of any ASR feasibility assessment is to determine if there is the potential for source water and groundwater to mix without the formation of unwanted chemical and bio-chemical by-products. In addition, this type of assessment can be used to help ascertain if the resulting recovered water (consisting of a mix of source water and groundwater) has geochemical characteristics acceptable to the City. This may prove especially important to the City as it is already beginning to experience poor groundwater quality related to elevated fluoride. This analysis will look at the potential for the mixing of ASR source water with native groundwater to yield lower fluoride concentrations in the recovered water so that it is more suitable to City use.

Using the water quality data collected in this Task a preliminary AKART analysis will be done to assess potential treatment needs for both the source water and recovered water.

Task 3: Preliminary Water Rights and Engineering Assessments

To support the hydrologic evaluation, the feasibility assessment will include preliminary evaluations of water rights and engineering needs. The objectives of Task 3 will be to:

- Describe potential water rights to access specific water sources.
- Summarize permit requirements likely needed for an ASR project.
- Compile preliminary engineering evaluations for water treatment, distribution, and wells.
- Review potential alternatives to ASR.

To use source water for a future potential ASR project, water rights for that source water will need to be secured. For the preliminary water rights evaluation several potential sources will be examined, including other water rights owned by the City (if any seem applicable), water supplies owned by private entities, and/or Columbia basin Project water. The preliminary water rights evaluation will describe what the water rights needs for specific water sources may be, including potential contracting arrangements that might be needed with such entities as the U.S. Bureau of Reclamation.

The preliminary permitting assessment will summarize permit requirements likely needed for an ASR project, including (but not limited to) changes to existing water rights, secondary permit(s), NPDES requirements, and SEPA requirements.

It is likely that modifications of existing infrastructure will be needed for an ASR project. These modifications would potentially include water treatment for selected source water options, the distribution system to move source water and recovered water to and from ASR wells, and well work to make a selected well an operational ASR well. This preliminary engineering evaluation will provide the City with an understanding of potential capital improvements that might be needed for an ASR project. Task 3 will not result in a detailed engineering plan that describes in detail all necessary improvements, upgrades, and modifications.

Alternatives to ASR that might potentially be used in conjunction with, or instead of, ASR will be assessed. The objective of this portion of Task 3 is to prepare a preliminary evaluation of the potential for using alternative groundwater supplies (including shallower groundwater or groundwater experiencing recharge from irrigation operations), reuse of treated water, and conservation to meet the City's needs.

Schedule, Deliverables, and Budget

The Othello Aquifer Storage and Recovery Feasibility Assessment Project would be completed within approximately 16 months of the start of work.

The primary deliverable for the project will be a final ASR feasibility report. This report will include the following:

- The results of the Task 1, including: (1) an evaluation of local hydrogeologic properties of the aquifer system underlying the City, (2) identification of potential ASR storage zone targets, (3) assessment of target zone hydrogeologic properties, extent of potential recharge effects, and groundwater flow limiting boundaries that might influence ASR operations, and (4) assessment of the physical suitability of existing City wells for ASR use.
- Task 2 results, including evaluations of: (1) potential source water(s) quality, (2) potential target zone(s) groundwater quality, and (3) source water and groundwater compatibility. The preliminary AKART analysis also will be included in this portion of the final report.
- The preliminary findings compiled under Task 3, including: (1) potential water rights needs to access specific water sources, (2) permit requirements likely needed for an ASR project, (3) preliminary engineering evaluations of potential water treatment, distribution, and well infrastructure needs. In addition, the report will summarize the findings focused on potential use of alternative groundwater supplies (including shallower groundwater or groundwater experiencing recharge from irrigation operations), reuse of treated water, and conservation to supplement or use in lieu of ASR.

The proposed project budget for the Othello Aquifer Storage and Recovery Feasibility Assessment Project is $225,000, divided between the three project tasks as follows:

1. Task 1: Hydrogeologic Evaluation: $120,000
2. Task 2: Groundwater/Source Water Compatibility: $60,000
3. Task 3: Preliminary Water Rights, Engineering, and Alternatives Assessment: $45,000

2013-2015 Columbia Basin GWMA Project Summary: City of Moses Lake Alternative Water Supply Feasibility Assessment

Introduction

The Challenge: Groundwater pumped from City of Moses Lake wells comes from a variety of sources. Seven wells have primarily fossil sources while other wells have primarily modern sources (4 wells). Some City wells also appear to pump exclusively ancient, or fossil, groundwater (4 wells), but only one City well pumps groundwater derived exclusively from modern recharge sources. Even though only four City wells pump exclusively fossil groundwater, the water level declines seen in most City wells indicates that pumping rates exceed the amount of groundwater in storage and/or recharge within the portions of the aquifer system being pumped. Comparing estimated water demand and growth predictions the current pumping capacity of City wells likely will not be sufficient to meet projected future needs. Accelerated or increased groundwater pumping in the central GWMA, and the surrounding region, could further impact future groundwater supply challenges. In addition, even with partial replacement of deep irrigation wells with surface water sources, it seems likely that groundwater level declines in the Moses Lake region will continue, although at a slower rate.

The Goal: Several potential solutions to future Moses Lake water supply challenges, including aquifer storage and recovery (ASR), shallow basalt and/or alluvial groundwater pumping, use of surface water, and reuse of treated waste water, were introduced in GWMA's recently completed Moses Lake groundwater supply assessment. Building on that work, the proposed Moses Lake alternative water supply feasibility assessment will focus on how these alternative water supply sources might be used independently, together, and with and without ASR to allow Moses Lake to meet long-term water needs, particularly during periods of peak demand.

The Objectives: The proposed Moses Lake alternative water supply feasibility assessment project will focus on how ASR, with and without the alternative water supplies, might be used to meet long-term water needs. This feasibility assessment also will look at the work that would need to be completed to implement such a program

Three basic objectives are proposed:

1. Evaluate the local hydrogeology for ASR suitability and alternative water supply sources.
2. Conduct a screening level assessment of groundwater and potential source water quality, including an assessment of geochemical compatibility.
3. Perform preliminary evaluations of water rights, engineering needs for a potential ASR project, and other potential water supply alternatives.

GWMA proposes to work in cooperation with the City and the Department of Health to evaluate ASR potential, and future water supply potential, of the aquifer system underlying the city. GWMA will build on its previously established relationship with the City of Moses Lake to collect data and information needed to evaluate ASR and alternative water supply potential, provide the city with a likely timeframe for the necessity of action, and provide planning-level budgets for implementing ASR and/or other water supply alternatives. The work to be done for this feasibility assessment will focus on the use of existing hydrologic data and information, supplemented by limited new data collection. Preliminary assessments of water rights, permitting, and engineering needs will be conducted to provide the City with options for consideration as they address future water needs. Additional benefits of this work will be to establish action thresholds and predict the future viability of an ASR-based groundwater supply for time increments of 6, 15, and 30 years into the future. This analysis can then be used to support municipal capital and growth planning.

The following sections describe the scope of work, schedule, deliverables, and budget proposed for this project.

Proposed Scope of Work

Three basic project tasks are proposed to address the goals and objectives listed above, as follows:

1. Task 1: Hydrogeologic Evaluation.
2. Task 2: Groundwater/Source Water Compatibility.
3. Task 3: Preliminary Water Rights, Engineering, and Alternatives Assessment.

The work associated with each task is explored further in the following sections.

Task 1: Hydrogeologic Evaluation

The hydrologic evaluation portion of the feasibility assessment will be based primarily on existing City well information, local and regional GWMA hydrogeologic information, and U.S. Geological Survey CPLAT information. This may be supplemented to a limited extent by the results of new pumping tests, water level data collection, and groundwater geochemical sampling.

The objectives of Task 1 are to:

- Evaluate the local hydrogeologic properties of the aquifer system underlying the City, both with respect to ASR potential and for alternative water supply.
- Identify potential ASR storage zone targets that appear to have the hydrologic characteristics needed for ASR operations.
- Identify portions of the aquifer system that might host alternative water supply sources.
- Identify ASR target zone and alternative water supply aquifer system hydrogeologic properties and the extent of potential recharge effects including groundwater flow limiting boundaries that might influence ASR operations.
- Assess the physical suitability of existing City wells for ASR use.

Evaluation of local hydrogeologic properties of the aquifer system underlying the City will focus on both the Columbia River basalt aquifer system and the alluvial aquifer system. This work will include an assessment of aquifer hydraulic properties, depth to groundwater, groundwater flow direction, potential aquifer response to injection and recovery, and the potential mobility and recoverability of injected water. GWMA proposes to will work with Moses Lake to collect existing and new data and information about the different potential solutions, provide the City with a likely timeframe for the necessity of action, and provide planning-level budgets for implementing ASR and/or other water supply strategies. Our ability to do this will be limited by available well testing information. However, GWMA will work with the City to see if additional well pumping tests are feasible, and if so, conduct such testing as can be accomplished given funding constraints.

Using this hydrogeologic evaluation GWMA will identify potential ASR targets that appear to have the hydrologic characteristics needed for ASR operations. For the potential target zone(s) – to the extent possible given the available data and groundwater model outputs – GWMA will further identify target zone hydrogeologic properties and the extent of potential recharge effects including groundwater flow limiting boundaries that might influence ASR operations. Using the results of the hydrogeologic evaluation, GWMA also will evaluate the potential for different portions of the aquifer system underlying the City to act as future water supply sources.

A major cost savings in any ASR project can be realized if existing wells can be used. This portion of the assessment will look at the physical suitability of existing City wells for future ASR use. With this GWMA will provide the City with guidance as to the potential need for new wells.

Task 2: Groundwater/Source Water Compatibility

An integral part of the proposed ASR feasibility assessment will focus on both source water and groundwater geochemical properties. The objectives of Task 2 will be as follows:

- Evaluate source water quality.
- Evaluate groundwater quality.
- Assess source water and groundwater compatibility.
- Perform a preliminary AKART analysis.

The evaluation of the source water quality and groundwater quality will be based on both existing data and new sampling. Analyses will include the range of drinking water parameters. Source water samples will be collected from such water bodies as nearby canals and shallow groundwater. Groundwater samples will be collected from at least two wells identified in Task 1 as being open to intervals targeted for potential ASR use.

An important of any ASR feasibility assessment is to determine if there is the potential for source water and groundwater to mix without the formation of unwanted chemical and bio-chemical by-products. In addition, this type of assessment can be used to help ascertain if the resulting recovered water (consisting of a mix of source water and groundwater) has geochemical characteristics acceptable to the City. This may prove especially important to the City as it is already beginning to experience poor groundwater quality related to elevated fluoride and temperature in some wells. This analysis will look at the potential for the mixing of ASR source water with native groundwater to yield geochemical conditions in recovered water that is more suitable to City use.

Using the water quality data collected in this Task a preliminary AKART analysis will be done to assess potential treatment needs for both the source water and recovered water.

Task 3: Preliminary Water Rights and Engineering Assessments

To support the hydrologic evaluation, the feasibility assessment will include preliminary evaluations of water rights, engineering needs, and alternatives to ASR, including continued pumping of deep basalt wells. The objectives of Task 3 will be to:

- Describe potential water rights to access specific water sources.
- Summarize permit requirements likely needed for an ASR project.
- Compile preliminary engineering evaluations for water treatment, distribution, and wells.
- Review potential alternatives to ASR.

To use source water for a future potential ASR project, water rights for that source water will need to be secured. For the preliminary water rights evaluation several potential sources will be examined, including other water rights owned by the City (if any seem applicable), water supplies owned by private entities, and/or Columbia basin Project water. The preliminary water rights evaluation will describe what the water rights needs for specific water sources may be, including potential contracting arrangements that might be needed with such entities as the U.S. Bureau of Reclamation.

The preliminary permitting assessment will summarize permit requirements likely needed for an ASR project, including (but not limited to) changes to existing water rights, secondary permit(s), NPDES requirements, and SEPA requirements.

It is likely that modifications of existing infrastructure will be needed for an ASR project. These modifications would potentially include water treatment for selected source water options, the distribution system to move source water and recovered water to and from ASR wells, and well work to make a selected well an operational ASR well. This preliminary engineering evaluation will provide the City with an understanding of potential capital improvements that might be needed for an ASR project.

Alternatives to ASR that might potentially be used in conjunction with, or instead of, ASR will be assessed. This portion of the preliminary evaluation will look at the potential for using alternative groundwater supplies (including shallower groundwater or groundwater experiencing recharge from irrigation operations), reuse of treated water, and conservation to meet the City's needs.

Schedule, Deliverables, and Budget

The Moses Lake Alternative Water Supply Feasibility Assessment Project would be completed within approximately 16 months of the start of work.

The primary deliverable for the project will be a final ASR feasibility report. This report will include the following:

- The results of the Task 1, including: (1) an evaluation of local hydrogeologic properties of the aquifer system underlying the City, (2) identification of potential ASR storage zone targets, (3) assessment of target zone hydrogeologic properties, extent of potential recharge effects, and groundwater flow limiting boundaries that might influence ASR operations, and (4) assessment of the physical suitability of existing City wells for ASR use.
- Task 2 results, including evaluations of: (1) potential source water(s) quality, (2) potential target zone(s) groundwater quality, and (3) source water and groundwater compatibility. The preliminary AKART analysis also will be included in this portion of the final report.
- The preliminary findings compiled under Task 3, including: (1) potential water rights needs to access specific water sources, (2) permit requirements likely needed for an ASR project, (3) preliminary engineering evaluations of potential water treatment, distribution, and well infrastructure needs. In addition, the report will summarize the findings focused on potential use of alternative groundwater supplies (including shallower groundwater or groundwater experiencing recharge from irrigation operations), reuse of treated water, and conservation to supplement or use in lieu of ASR.

The proposed project budget for the Moses Lake Aquifer Storage and Recovery Feasibility Assessment Project is $350,000, divided between the three project tasks as follows:

1. Task 1: Hydrogeologic Evaluation: $200,000
2. Task 2: Groundwater/Source Water Compatibility: $100,000
3. Task 3: Preliminary Water Rights, Engineering, and Alternatives Assessment: $50,000